Message

From: Schmid, Emily [Schmid.Emily@epa.gov]
Sent: 4/19/2019 3:08:43 PM
To: SEIFERT-HIGGINS, SIMONE [AG/1005] [simone.seifert-higgins@bayer.com]; Baris, Reuben [Baris.Reuben@epa.gov]
CC: Meadows, Sarah [Meadows.Sarah@epa.gov]; BHAKTA, TINA [AG/1005] [tina.bhakta@monsanto.com]; ORR, THOMAS B [AG/1005] [thomas.b.orr@monsanto.com]; james.m.nyangulu@monsanto.com
Subject: RE: Dicamba - Corn

Hi Simone,

Thank you for sending this.

Have a nice weekend!

Emily

From: SEIFERT-HIGGINS, SIMONE [AG/1005] <simone.seifert-higgins@bayer.com>
Sent: Friday, April 19, 2019 10:46 AM
To: Schmid, Emily <Schmid.Emily@epa.gov>; SEIFERT-HIGGINS, SIMONE [AG/1005] <simone.seifert-higgins@bayer.com>; Baris, Reuben <Baris.Reuben@epa.gov>
Cc: Meadows, Sarah <Meadows.Sarah@epa.gov>; BHAKTA, TINA [AG/1005] <tina.bhakta@monsanto.com>; ORR, THOMAS B [AG/1005] <thomas.b.orr@monsanto.com>; james.m.nyangulu@monsanto.com
Subject: RE: Dicamba - Corn

Hi Emily,
Attached please find Monsanto's response to deficiency related to pending application for XtendiMax (M1768 Herbicide, EPA Reg. No. 514-617). A waiver for field volatility data on dicamba-tolerant corn has been submitted via EPA's electronic portal.

Please feel free to contact me should you have questions or need additional information.

Regards,
Simone

Simone Seifert-Higgins, Ph.D.
Regulatory Affairs Manager

Bayer U.S. – Crop Science
700 Chesterfield Parkway West
Chesterfield, MO 63017

Office Tel: +1 (636) 737-9571

Ex. 6 Personal Privacy (PP)

From: Schmid, Emily <Schmid.Emily@epa.gov>
Sent: Wednesday, February 06, 2019 6:36 AM
To: SEIFERT-HIGGINS, SIMONE [AG/1005] <simone.seifert-higgins@bayer.com>
Cc: Meadows, Sarah <Meadows.Sarah@epa.gov>
Subject: Dicamba - Corn

Hi Simone,

I hope you have been well.

During their initial screen, EFED found issues that needs to be addressed regarding the field volatility study. I have attached the related letter and screen. If you have any questions, please don't hesitate to email me and I'll send them to EFED for their feedback right away.

Best regards,

Emily Schmid
Biologist
U.S. Environmental Protection Agency
Registration Division
Herbicide Branch

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Message

From: SEIFERT-HIGGINS, SIMONE [AG/1005] [simone.seifert-higgins@bayer.com]
Sent: 4/19/2019 2:45:34 PM
To: Schmid, Emily [Schmid.Emily@epa.gov]; SEIFERT-HIGGINS, SIMONE [AG/1005] [simone.seifert-higgins@bayer.com]; Baris, Reuben [Baris.Reuben@epa.gov]
CC: Meadows, Sarah [Meadows.Sarah@epa.gov]; BHAKTA, TINA [AG/1005] [tina.bhakta@monsanto.com]; ORR, THOMAS B [AG/1005] [thomas.b.orr@monsanto.com]; james.m.nyangulu@monsanto.com
Subject: RE: Dicamba - Corn
Attachments: 524-617.Cover.Letter_M1768Herbicide.Deficiency.response_20190419.pdf; 50833301_524-617.M1768Herbicide.Deficiency.Response_20190419.pdf; 524-617 Deficiency Letter and Screen.pdf

Hi Emily,
Attached please find Monsanto's response to deficiency related to pending application for XtendiMax (M1768 Herbicide, EPA Reg. No. 514-617). A waiver for field volatility data on dicamba-tolerant corn has been submitted via EPA's electronic portal.

Please feel free to contact me should you have questions or need additional information.

Regards,
Simone

Simone Seifert-Higgins, Ph.D.
Regulatory Affairs Manager

Bayer U.S. – Crop Science
700 Chesterfield Parkway West
Chesterfield, MO 63017

Office Tel: +1 (636) 737-9571

Ex. 6 Personal Privacy (PP)

From: Schmid, Emily <Schmid.Emily@epa.gov>
Sent: Wednesday, February 06, 2019 6:36 AM
To: SEIFERT-HIGGINS, SIMONE [AG/1005] <simone.seifert-higgins@bayer.com>
Cc: Meadows, Sarah <Meadows.Sarah@epa.gov>
Subject: Dicamba - Corn

Hi Simone,

I hope you have been well.

During their initial screen, EFED found issues that needs to be addressed regarding the field volatility study. I have attached the related letter and screen. If you have any questions, please don't hesitate to email me and I'll send them to EFED for their feedback right away.

Best regards,

Emily Schmid
Biologist
U.S. Environmental Protection Agency
Registration Division
Herbicide Branch

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

E-MAILED

February 6, 2019

OPP Decision Number: 538753

Simone Seifert-Higgins, Ph.D.
Regulatory Affairs Manager
Monsanto Company
1300 I Street, NW
Washington, DC 20005

Subject: Application Deficiency
Product Name: M1768 Herbicide
EPA Registration Number: 524-617
Application Date: January 22, 2018
EPA Receipt Date: January 25, 2018

Dear Dr. Seifert-Higgins:

The Agency has received and begun its in-depth review of the subject application and has determined that it is incomplete or that further information is needed. This letter is a written notification of those deficiencies and identifies your options under 40 CFR 152.105. Please ensure that you consider each of the options below in determining how and when you respond to this letter.

Pursuant to 40 CFR 152.105, you are allowed 75 days from the date of this letter to provide a response concerning the deficiencies listed in this letter. Your response may include making corrections or additions to complete the application, or notifying the Agency of the date on which you expect to complete the application, or withdrawing your application. If you do not respond to this letter within 75 days or if you respond with a date on which you expect to complete the application but fail to meet that scheduled date, the Agency will treat the application as if you had withdrawn it. Withdrawal concludes the Agency's review of your application. Any subsequent submission of the same application must then be submitted as a new application with a new deadline for EPA to make a determination on your application and subject to a new registration service fee.

The deficiency identified in the Agency's review at this time is:

1. A field volatility study conducted using Xtendimax on dicamba-tolerant corn is required to complete the review of this request. In order to ensure that the data collected is what is needed to complete a review, we strongly encourage the submission of a protocol before initiating this study.

Further review of your application and your response to the deficiencies may identify additional deficiencies and you will be so informed.

Please respond to this letter within 75 days of the stamped date by contacting Emily Schmid by telephone on 703-347-0189 or by e-mail at schmid.emily@epa.gov or Sarah Meadows by telephone on 703-347-0505 or by e-mail at meadows.sarah@epa.gov during the hours of 9:00 am to 3:00 pm EST with a response and for any questions concerning this letter. When submitting information or data in response to this letter, a copy of this letter should accompany the submission to facilitate processing.

Sincerely,

Emily Schmid

Emily Schmid, Acting Product Manager 25
Herbicide Branch
Registration Division (7505P)
Office of Pesticide Programs

Enclosure

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON D.C., 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

Date: November 20, 2018
DP Barcode: 447230
PC code: 128931

MEMORANDUM

SUBJECT: Dicamba DGA – 90-day Screen for Proposed New Use on Dicamba-tolerant GMO Corn (EPA Reg. No. 524-617)

FROM: Chuck Peck, Senior Environmental Fate Scientist 2018.11.20 08:03:10 -05'00'
Michael Wagman, Biologist MICHAEL WAGMAN Digitally signed by MICHAEL WAGMAN Date: 2018.11.20 07:16:47 -05'00'
Environmental Risk Branch 6
Environmental Fate & Effects Division

THRU: Mark Corbin, Branch Chief Digitally signed by Mark Corbin Date: 2018.11.27 11:57:43 -05'00'
William P. Eckel, Senior Science Advisor Digitally signed by William P. Eckel Date: 2018.11.26 11:06:42 -05'00'
Monica Wait, RAPL Digitally signed by MONICA WAIT Date: 2018.11.20 10:01:53 -05'00'
Environmental Risk Branch 6
Environmental Fate & Effects Division

TO: Emily Schmid, Risk Manager Reviewer
Reuben Baris, Product Manager Team 25
Daniel Kenny, Branch Chief
Herbicide Branch
Registration Division

This memorandum transmits the Environmental Fate and Effects Division's (EFED) 90-day screen for the proposed new use of dicamba DGA salt on dicamba-tolerant GMO corn (EPA Reg. No. 524-617, XtendiMax With VaporGrip Technology).

Dicamba DGA salt is currently registered for use on conventional corn with both pre-emergence and post-emergence application timing, but the proposed new use is to add herbicide resistant corn to the product label. In addition, the following changes to corn application rates are proposed with this package:

- Increase annual use rate from 0.75 lb a.e./acre to 2.0 lb a.e./acre
- Increase pre-plant, at-planting, pre-emergence rate from 0.5 lb a.e./acre to 1.0 lb a.e./acre
- Early post-emergence (from emergence to 8 inches or V5 growth stage) remains 0.5 a.e./acre

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- Late post-emergence (up to 36 inches or V8 growth stage) from 0.25 lb a.e./acre to 0.5 lb a.e./acre
- Seeking to add two states – Montana and Wyoming

40 CFR 158.1300 conditionally requires the conduct of field volatility studies for end-use products being applied in a terrestrial environment. Further, OCSPP Guideline 835.8100 specifies that the conduct of these studies be done "in areas considered representative of major areas where the pesticide is intended to be used" and "should be applied to a site which is typical of one of the sites to which the product would be applied." To date, the submission of field volatility studies for Xtendimax have focused on pre-emergent applications to bare soil and post-emergent applications to cotton grown to 11 inches. Recent incidents regarding soybean damage have prompted the conduct of volatility studies in 2018, primarily on soybean fields. No information has been submitted on the volatility of dicamba during an application of the Xtendimax product on post-emergent corn grown to a 36-inch height. Lastly, proposed post-emergent application rates are increasing from 0.25 lbs ae/A to 0.5 lbs ae/A during the late post-emergent stage.

Given the increase in application rate, when compared to current label specifications, the different crop canopy from which dicamba may volatilize (corn versus cotton), and the recent incidents to soybean, EFED recommends that a new field volatility study be conducted using Xtendimax on dicamba-tolerant corn to ascertain if the volatilization of dicamba from the corn crop at these increased application rates is similar to volatilization observed in cotton and soybean. This will reduce uncertainty and provide information for determining the necessity and/or extent of in-field buffers meant to keep dicamba residues on the treated field.

EFED recommends the following be considered when conducting the corn volatilization study:

1. Multiple sites representing corn should be selected, to provide sufficient representation of the areas where dicamba can be applied to corn.
2. More than one postemergence growth stage should be evaluated, including 30 inch tall corn. A volatility study simulating pre-emergence conditions would not be useful, since sensitive crops are generally not present at that time.
3. A range of temperature and humidity conditions representing late spring through summer should be represented.
4. Field sizes should represent a large corn field (Farm Services Agency data suggests the average corn field is 14 acres and the 90th percentile corn field is 73 acres).
5. In order to estimate flux from a field when a canopy is present, an appropriate method (e.g., aerodynamic method, eddy covariance method, etc.) should be employed. Methods suitable for bare soil or minimal canopy (i.e., the integrated horizontal technique) should not be used.

By Email and Electronic Portal

U.S. Environmental Protection Agency
Document Processing Desk (E-SUB)
Office of Pesticide Programs (7504P)
Room S4900, One Potomac Yard
2777 Crystal Drive Arlington, VA 22202

Mr. Reuben Baris
Product Manager, Team 25
Herbicide Branch

April 19, 2019

Simone Seifert-Higgins, Ph.D
Regulatory Affairs Manager

Bayer Crop Science Division
Monsanto Company

700 Chesterfield Parkway West
Chesterfield, Missouri 63017
USA

Tel.: (636) 737-9571
Mobile: (314) 330-3053
Simone.seifert-higgins@bayer.com

www.bayer.com

Subject: Response to deficiency associated with pending application for amendment of registration of M1768 Herbicide; EPA Reg. No. 524-617 (OPP Decision Number: 538753)

Dear Mr. Baris,

EPA notified Monsanto Company on February 6, 2019 that there was a deficiency in our pending application for the new use of M1768 Herbicide on dicamba-tolerant corn, EPA Reg. No. 524-617 (OPP Decision No. 538753). With this submission, Monsanto is providing a detailed discussion to resolve this issue and is submitting a waiver for field volatility data in lieu of the requested field volatility study for post-emergent use of XtendiMax on dicamba-tolerant corn.

The following documents were submitted to the EPA through the EPA's electronic portal:

- Cover Letter
- Copy of EPA Notification of Application Deficiency
- MRID 50833300: Transmittal Document
- MRID 50833301: Summary of Existing Field Volatility Studies for XtendiMax with VaporGrip Technology Applications in

Support of Data Waiver for Field Volatility Study on Dicamba-Tolerant Corn

If you have any questions regarding this submission, please contact James Nyangulu in our Washington D.C. office at (202) 383-2866, or by email at james.nyangulu@bayer.com, or me directly at (636) 737-9571, or by e-mail at simone.seifert-higgins@bayer.com.

Yours sincerely,

Bayer U.S. – Crop Science
Monsanto Company

Simone Seifert-Higgins, Ph.D.
Regulatory Affairs Manager

Cc Emily Schmid

Message

From: Alli Langley [alangley@keystone.org]
Sent: 4/15/2019 9:56:46 PM
To: AVNI, DORIT [BEEOLOGICS/1005] [dorit.avni@bayer.com]; pberthelsen@BeeAndButterflyFund.org [pberthelsen@beeandbutterflyfund.org]; Dewey Caron [dmcaron@udel.edu]; phil.craft@vetopharma.com; rcurtis@almondboard.com; Danielle Downey (danielle@projectapism.org) [danielle@projectapism.org]; Linda Dudenhoeffer [linda.dudenhoeffer@bayer.com]; dfayy@valent.com; Nathan Fields [fields@ncga.com]; Given, Krispn J [kgiven@purdue.edu]; Ex. 6 - Personal email @gmail.com; Jerry Hayes (gwhayes@vitabeehealth.us) [gwhayes@vitabeehealth.us]; Chris Hiatt [hiattch@sbcglobal.net]; karen levin [karen@levinfamilyfoundation.org]; Proni, Frederick [Frederick.Proni@vetopharma.com]; Reed, Mary M [mary.reed@tamu.edu]; Robert Sears Ex. 6 - Personal email gmail.com]; 'Mike Smith' [smith@ctic.org]; Tom Smith [tomsmith@npsec.us]; spevak@stlzoo.org; Steeger, Thomas [Steeger.Thomas@epa.gov]; Jackie Weiss [jweiss@smithbucklin.com]; 'Dwight Wells' [dwells85@woh.rr.com]; James Wilkes [james@hivetracks.com]; Jon Zawislak [jzawislak@uaex.edu]; Jeffrey H Birk [jeffrey.birk@basf.com]; Ex. 6 - Personal email @gmail.com; tammy.potter@ky.gov; daniel.schmehl@bayer.com; Burleson.Smith@BASF.com Ex. 6 - Personal email @gmail.com; bbloetscher@agri.ohio.gov; Ex. 6 - Personal email gmail.com Ex. 6 - Personal email @gmail.com]
CC: Julie Shapiro [jshapiro@keystone.org]
Subject: Materials and logistics for Honey Bee Health Coalition meeting in Louisville
Attachments: HBHC-April2019-Louisville-Mtg-packet.pdf

Hello Honey Bee Health Coalition,

We're looking forward to seeing everyone on Wednesday in Louisville. If you are unable to attend the meeting but would like to participate in the sector breakouts to choose Steering Committee members, please email me your cell phone number, and a representative from your sector will call you at approximately 3:30 p.m. EDT on Wednesday. Note that we are not doing remote participation for the rest of the meeting.

If you are attending and are not on the RSVP list in the attached meeting packet (last page), please let me know as soon as possible.

Note that we will have the packet printed for everyone at the meeting. We will also reference our new BMP guides and other Coalition materials (available on the website) and the new Bee Integrated report (available here: https://keystonepolicycenter.sharepoint.com/:b:/s/policy/hbhc/EXqYTcXPOD5ItKv7MzHDAQEBkCzWbrAhJeHjAkj605fxIw?e=gcpT2t) but will not be printing copies for everyone due to length.

Please eat breakfast on Wednesday (available for purchase at the Galt House Hotel) before meeting us in the lobby at 8 a.m. to walk to the Frazier History Museum. We will have coffee and light refreshments as well as lunch at the meeting. If you miss the group, go right when you exit the Galt hotel, turn right on Main Street, and walk about five blocks. The Frazier museum will be on your right. Or if you don't want to walk, feel free to take a cab or rideshare. The address is 829 W Main St, Louisville, KY 40202.

If you have any issues or questions, please feel free to call me (Alli) on my cell phone at Ex. 6 Personal Privacy (PP)

Thanks and see you soon!

Alli and Julie

Alli Langley
Policy Fellow
Keystone Policy Center
1628 Sts. John Rd.
Keystone, CO 80435
(970) 513-5847
keystone.org

HONEY BEE HEALTH COALITION

April 17-18, 2019
Louisville, Kentucky

HONEY BEE
HEALTH
COALITION

HONEY BEE HEALTH COALITION

April 2019

The Honey Bee Health Coalition has continued its hard work in 2019. We've been busy on a variety of efforts to address the multiple factors affecting honey bee health, including crop pest management, forage and nutrition, and hive management. We've reached several significant milestones already in 2019:

- Through the partnership efforts of the U.S. Canola Council and National Corn Growers Association, respectively, launched the **canola and corn best management practices** for crop protection to protect pollinator health.
- Through the partnership efforts of National Pesticide Safety Education Center, delivered the **crop pest advisor education training** presentation at several major conferences this winter.
- Launched **Best Management Practices for Bee Health: A Guide for Beekeepers.**
- Launched **Varroa Management Decision Tool.**
- Coordinated presentations of winners of the **Bee Nutrition Challenge**.
- Conducted **outreach to the leaders of the U.S. Department of Agriculture Natural Resource Conservation Service and Farm Service Agency** – resulting in a meeting scheduled for May 2019.
- Launched the third year of the **Bee Integrated Demonstration Project** showcasing beekeeper and grower best practices in forage, crop pest control, hive management, and collaboration.
- Conducted **beekeeper and farmer outreach** at winter meetings (American Honey Producers Association, American Beekeeping Federation, American Bee Research Council, Apiary Inspectors of America, and Commodity Classic)

We look forward to our ongoing work in 2019 and in finding ways to work with members to both develop new tools and resources and disseminate existing ones.

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Healthy Bees, Healthy People, Healthy Planet.

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HONEY BEE HEALTH COALITION

Coalition Member Meeting
April 17-18, 2019 | Louisville, Kentucky

Agenda

Honey Bee Health Coalition Mission Statement
The mission of the Honey Bee Health Coalition is to collaboratively implement solutions that will help to achieve a healthy population of honey bees while also supporting healthy populations of native and managed pollinators in the context of productive agricultural systems and thriving ecosystems.

Meeting Purpose: Advance Coalition dialogue and action across its priority areas with crop pesticide discussions elevated to the plenary session.

Meeting Objectives:
- Shared learning on topics in hive management and crop pest control (April 17)
- Advance the priority strategies and initiatives currently underway in all working groups – forage, nutrition, crop pest management, hive management, and the Bee Integrated Demonstration Project (April 17)
- Tour a farm with corn fields and orchards, better understand the corn planting process, and discuss maintaining productive agriculture and healthy bees in the same landscape (April 18)

Meeting Schedule *(all times are approximate and are Eastern Standard Time)*:

Day 1: April 17, 2019 – Frazier History Museum - 829 W Main St, Louisville, KY, 4th Floor Loft

6:00 AM **Breakfast available at Galt Hotel** (140 N 4th St, Louisville, KY)

8:00 AM **Meet in lobby of Galt Hotel to walk to Frazier History Museum** (10-minute/0.5-mile walk). Feel free to take a taxi or rideshare.

8:30 AM **Welcome and introductions**
- Introductions, overview of agenda and ground rules

8:45 AM **Welcome to Kentucky** – *Tammy Horn Potter, Kentucky State Apiarist*

9:00 AM **Presentations on Queen Breeding:**
- Selecting for Behavioral Resistance to Varroa Destructor -- *Krispn Given, Apiculture Specialist, Purdue University Department of Entomology*
- Breeding for improved varroa resistance to support honey bee health and crop pollination services -- *Danielle Downey, Executive Director, Project Apis M*

10:15 AM **Break**

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10:30 AM	**Observations from the apiary** • Updates on the 2018/2019 season, *Coalition beekeepers*
10:45 AM	**Working Group updates and discussion in plenary** • Hive Management Working Group • Crop Pest Management • Forage and Nutrition • Bee Integrated Demonstration project • Outreach and Communications
12:00 PM	**Lunch**
12:45 PM	**Guest presentation and discussion on honey bees, interactions with field crops, and dicamba** • Pollen foraging by honey bees in an agricultural landscape - *Jon Zawislak, Apiculture Instructor, University of Arkansas Cooperative Extension Service* • Overview of dicamba pollinator testing and assessment and best practices for Applicators - *Steven L. Levine, Senior Science Fellow, Environmental Assessment Strategy Lead & Ty Witten, Director, Crop Protection Strategy, Bayer CropScience*
2:00 PM	**Break**
2:15 PM	**Opportunities for Coalition member engagement, support, and commitment --** Whether through a Coalition- or member-offered opportunity or initiative, how can members further elevate and amplify support for bee health? • *Brainstorming* – members to further brainstorm specific actions or commitments that they and/or others could take • *Matchmaking* – members to identify at least one brainstormed action that they can individually commit to take this year; if an idea rises to level of working group collaborative initiative, identify next steps to implement
3:30 PM	**Break/sector breakout** • Steering Committee selection • Reflections on Coalition progress and how your sector can amplify impact
4:00 PM	**Coalition reflections for the future** • Reflections from sector breakouts • Cross-sector dialogue on evolution of the Coalition in 2019 and beyond
5:00 PM	**Coalition reception, optional bourbon tasting, and Kentucky Bourbon Trail museum tour** (Order of the Writ Speakeasy, 4th floor)
6:30 PM	**Adjourn –** dinner on your own

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<u>Day 2: April 18, 2019</u> – Field Tour

6:00 AM	**Breakfast available at Galt Hotel**
8:15 AM	**Meet in the lobby of Galt Hotel** (140 N 4th St, Louisville, KY) **to board bus**
8:30 AM	**Bus departs for field tour**
9:15 AM	**Tour beekeeping and corn operations at Hornback Farm** (6102 Cropper Rd., Shelbyville, KY 40065)
11:00 AM	**Tour apple operations at neighboring Mulberry Orchard** (1330 Mulberry Pike, Shelbyville, KY 40065)
12:00 PM	**Lunch at Mulberry Orchard**
12:30 PM	**Bus departs for Louisville International Airport**
1:30 PM	**Bus drops off at Louisville International Airport and then Galt Hotel**

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Ground Rules

The following ground rules encourage productive and collaborative deliberation. All Coalition members will agree to follow them and give facilitators authority to enforce them:

1. **GOOD FAITH**: Act in good faith in all aspects of group deliberations with the intent to promote joint problem solving, collaboration, and collective, common-ground solutions; honor prior agreements including but not limited to the contents of the Charter.
2. **OWNERSHIP**: Take ownership in the outcomes and the success of the Coalition.
3. **OPENNESS**: Be honest and open in sharing your perspectives; be open to other points of view and to the outcome of discussions.
4. **FOCUS**: Maintain focus on the mission and goals of the Coalition as well meeting objectives; honor agendas.
5. **LISTENING**: Listen to each speaker rather than preparing your response; no interruptions; refrain from use of smart phones and other technologies.
6. **PARTICIPATION**: Participate actively, speak briefly, and agree succinctly. Be mindful and respectful of the presence of multiple backgrounds and areas of expertise and avoid the use of acronyms and technical language from your field.
7. **RESPECT**: Disagree judiciously and without being disagreeable; do not engage in personal attacks; in all contexts, refrain from behavior that denigrates other participants or is disruptive to the work of the group.
8. **PREPAREDNESS AND COMMITMENT**: Prepare for and attend each session; get up to speed if you missed a meeting.
9. **REPRESENTATION AT THE DISCUSSION TABLE:** Participation in this meeting is for members of the Honey Bee Health Coalition. If you are not able to attend as the representative for your member organization or company, you are invited to find a replacement from within your organization. To promote balanced conversation and ensure a manageable group size, we request that participation at the plenary discussion table be limited to one person per member organization; additional attendees from a member organization will be asked to participate as observers during plenary sessions and to coordinate comments through the representative at the table. Breakout sessions will enable broader participation.
10. **CONFIDENTIALITY, COMMUNICATION AND ATTRIBUTION**: Meeting discussions are off the record and not for attribution. Do not make personal attributions outside of meetings, use discretion when characterizing the Coalition to others, and stick to agreed-upon messages and protocols when discussing the Coalition with outside organizations and media.
11. **FACILITATION AND CONFLICT RESOLUTION:** Let the facilitators facilitate; allow them to enforce the ground rules and engage them with any concerns.

Antitrust Statement: Keystone Policy Center and participants in its multi-stakeholder meetings assign the highest priority to full compliance with both the letter and the spirit of the antitrust laws. Given that competitors may be present in this meeting; several topics of conversation should be avoided. In general, the types of discussion that should be avoided are those that may suggest or tend to reflect agreements among competitors as to: price; terms of sale that could impact price; allocation of customers, markets or territories; bid-rigging; and boycotts or joint refusals to do business with others. Keystone Policy Center will conduct this meeting in a manner consistent with anti-trust laws. If at any time during the course of a meeting a participant believes that a sensitive topic under the antitrust laws is being discussed, or is about to be discussed, they will so advise the facilitator who will halt further discussion.

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Honey Bee Health Coalition
At-A-Glance Activity Overview and Progress Report – April 2019

Coalition Vision: Healthy Bees, Healthy People, Healthy Planet
Coalition Mission: Collaboratively implement solutions to help achieve a healthy population of honey bees while also supporting healthy populations of native and managed pollinators in the context of productive agricultural systems and thriving ecosystems.

Priority Area	Major Initiatives	Progress
Bee Integrated	Bee Integrated Demonstration Project	
Crop Pest Management	Corn and Canola BMPs	
	Crop pest advisor and applicator training	
	Soybean BMPs	
	Grower-Beekeeper roles flyers	
	MP3 Symposium	
	Incident Reporting Guide	
Forage and Nutrition	Bee Nutrition Challenge prize competition	
	USDA outreach and recommendations	
	Supply chain sustainability engagement	
	Farm Bill recommendations	
	Beekeeper Insights Nutrition Interviews	
	Focus on Forage webpage	
Hive Management	Varroa management guide and resources	
	New varroacide identification – 3 yr FFAR grant	
	Hive health BMPS	
	Hive management resources page	
	Varroa Decision Support Tool	
Communications and Outreach	Website, fact sheet, presentation	
	Conferences, tradeshows, Pollinator Week	
	Media and social media promotion	
	CAST paper	
	Bee Healthy Roadmap	

Achievements Since Prior Report:

- Bee Integrated year 2 complete
- Corn and Canola BMPs launched
- Crop pest advisor module passed to NPSEC to facilitate trainings
- Bee Nutrition Challenge finalist competition; winners provided follow-up presentations
- Hive Health BMPs and varroa decision support tool released
- Presentations and booths at several beekeeper and grower winter conferences
- USDA recommendations submitted regarding federal conservation programs

Upcoming Activities and Deliverables:

- Complete supply chain sustainability engagement presentations - TBD
- Follow-up and outreach with the new crop-specific BMPs
- Release and promote Veterinarian Feed Directive fact sheet
- USDA outreach on forage and nutrition – meeting with NRCS/FSA
- Bee Integrated year 3

Issues, Risks and *Mitigation*:

- Ensuring that work is communicated and utilized; *need help from members in sharing info about Coalition activities and products and promoting their use*

Financial Update:

- Current 2019 fundraising ~$246K to cover all expenses except Bee Integrated directs
- Smaller budget than 2018 (approximately 20% less) –driven by lower member funding
- Continuing to identify other possible funders and also plan/prioritize for various funding scenarios

No to little progress/ significant issues | **Slow progress/minor issues** | **Good Progress/no issues** | **Complete or Dormant**

Honey Bee Health Coalition
Bee Integrated Demonstration Project Update – April 2019

Goal: Demonstrate how honey bee health can be improved using a portfolio of tools together in the same agricultural landscape to address multiple factors

Staff Leads: Julie Shapiro (Keystone); Mike Smith (CTIC)
Executive Committee: Pete Berthelsen (BBHF), Keri Carstens (Corteva), Bob Sears (EMBA)
Additional Partners: Bee Informed Partnership, USGS, Coalition member committee

Overall Progress

Major Initiatives	Progress	Achievements Since Prior Report	Issues, Risks, Mitigation	Upcoming activities and deliverables
1. Pollinator bee forage improvement		• Forage transect, hive scale, and pollen protein results reported. Consistently observed more bees in BBHF fields. Minor differences in honey production, pollen protein content. • Acceptable (though not 100%) collection of pollen samples.	• One farmer overlooked a previous herbicide application which significantly reduced establishment. Set to update BBHF earlier and more frequently on this site.	• Organizing habitat site visits for mid-July • Pollen ID results from USGS
2. Varroa mite control		• All 4 sets of varroa counts, colony health observations completed. Small increase in frames of bees in BMP colonies.	• Some beekeepers have informally reported challenges with the number of guide-approved treatment options	• BIP update with reflections, recommendations
3. Crop pest control		• Second orientation and crop pest management training completed; attended by 4/6 farmers	• Farmer interviews indicate only one made significant adjustments to management of treated seed	• Sending participants training resources
4. Job swaps/ Collaboration		• 5/6 pairs report some additional interaction. • Farmers consistently report opportunity to benefit beekeepers as key motivator	• Farmers still sometimes unaware of beekeeper plans	• Encouraging more formal job swaps, especially by beekeepers
5. Overall project measures		• Colonies from 5/6 operations successfully tracked • Completed farmer year-end interviews. Farmers positive about project; eager for indicators of impacts on their partners' bees; most believe their habitat was beneficial	• Missed final BIP observation of one operation—beekeeper's new crew removed hive tags	• Conducting beekeeper year-end interviews
6. External outreach and communications		• August 2018 field tour and follow up communications; Video release • Presentations at ESA, ABF, AHPA • Outreach at Commodity Classic	• Need to further amplify message now that we have more of a story to tell	• 2019 communications plan
7. Project funding and scaling		• Fundraising goal has been met for 6 pairs • Grant processes for receiving funds has been smooth; some funds available at project end	• Call with Bee Squad to discuss expansion models • Possible additional outreach to potential partners?	

Honey Bee Health Coalition
Crop Pest Management – April 2019

Goal: Control crop pests and safeguard pollinator health

Staff Leads: Matt Mulica (Keystone), Stacey Smith (Keystone)
Working Group Leads: Bob Curtis (Almond Board of California), Caydee Savinelli (Syngenta)

Overall Progress

Major Initiatives	Progress	Achievements Since Prior Report	Issues, Risks, Mitigation	Upcoming activities and deliverables
Crop Pest Advisor and Applicator Training		• Training module administration passed to Nat'l Pesticide Safety Education Center	• Need to make it more action-oriented • Need to include crop and regionally-specific info	• Upcoming trainings
Corn and canola BMPS		• Developed, finalized and launched at Commodity Classic 2019	• Continue to work on outreach and tracking impact and implementation of suggested practices	• Outreach from crop associations
Soybean BMPs		• Soybean BMP source document completed and brochure developed; launched at Commodity Classic 2018		• Continued promotion
Grower-Beekeeper Roles Flyers		• Updated flyers completed in [Q1 2017]		
MP3 Symposium		• Symposium completed in 2016		
Incident Reporting Guide		• Guide updated in Q2 2017		• Annual review/update to ensure accuracy of contact information

No to little progress/ significant issues | **Slow progress/minor issues** | **Good Progress/no issues** | **Complete or Dormant**

Honey Bee Health Coalition
Forage and Nutrition – April 2019

Goal: Ensure honey bees have access to a varied and nutritious diet

Staff Leads: Julie Shapiro (Keystone)
Working Group Leads: Keri Carstens (DuPont), Bob Sears (Eastern Missouri Beekeepers Association)

Overall Progress

Major Initiatives	Progress	Recent Achievements	Issues, Risks, Mitigation	Upcoming activities and deliverables
Nutrition Prize Competition		• 6 finalists selected and competed at American Bee Research Council in 2018 - 4 winners announced with total of $40K in prizes (01/18) • Winners provided follow-up presentations at the 2019 ABRC in Tempe in January	• None	• May 17th , 2019 presentation by winners to the Forage and Nutrition WG
Supply Chain Sustainability Engagement		• Presentation complete • Fact sheet complete	• None	• Utilize communications materials to easily include in other sustainability efforts to support pollinator-related programs and metrics
USDA Coordination		• Letter from Steering Committee to NRCS Chief Lohr and FSA Administrator Fordyce • Meeting set for May 6, 2019		• May 6 meeting; proposing working group for FSA and NRCS and Coalition members to discuss recommendations in more depth
Beekeeper Insights Nutrition Interviews		• Non new activities Completed report and promoted in Q2		
Focus on Forage Webpage		• Webpage features members' various forage activities	• Need member updates	• Updates to page will be made when provided to Keystone
Farm Bill Recommendations		• Meetings with House Ag Committee staff to share Priority principles for Conservation Title that was signed by 25 members (10/17; meetings with Senate staff occurred 8/17)	• None	• Coalition members agreed at previous meeting to not pursue joint detailed drafting, but individual members may share ideas. • When Farm Bill is introduced, committee will reconvene to discuss the pollinator provisions

No to little progress/ significant issues | **Slow progress/minor issues** | **Good Progress/no issues** | **Complete or Dormant**

Honey Bee Health Coalition
Hive Management–April 2019

Goal: Put the best available tools, techniques, and technologies in the hands of beekeepers so they can best manage their hives.

Staff Leads: Matt Mulica (Keystone)
Working Group Leads: Jerry Hayes (Monsanto); Samantha Brunner (AIA)

Overall Progress

Major Initiatives	Progress	Achievements Since Prior Report	Issues, Risks, Mitigation	Upcoming activities and deliverables
Hive Health BMPs		• Launched at AHPA/ABF annual meetings in January 2019 • ~2,200 website visits since launch	• None	• Anticipated release January 2019 • Will determine whether an update is needed in Q4 2019
Varroa management guide and resources		• Reaching approx. 5k Varroa Guide downloads per quarter • Marketing postcards updated to include videos and bee club resources	• Question of how prescriptive to be regarding beekeepers risk tolerance; working group will discuss in advance of next update	• Q2 2019 update
Varroa Decision Support Tool		• Launched at AHPA/ABF annual meeitngs in January 2019 • ~2,300 website visits since launch	• None	• Continued outreach and promotion • If demand continues, may look to expand capabilities
Hive management resources page		• Launched Q4 2017	• None	• None
Mite-a-Thon and MiteCheck support/promotion		• Mite-a-Thon promoted • Varroa Decision Support Tool being integrated into MiteCheck	• Feedback on need to adjust timing in future; will be part of any future conversations	• Continued participation is 2019
New varroacide identification		• Secured $475K FFAR grant (with matching, total project is $1.1 million)	• None	• 3-year project plan

No to little progress/ significant issues | **Slow progress/minor issues** | **Good Progress/no issues** | **Complete or Dormant**

Honey Bee Health Coalition
Outreach, Education, Communication – April 2019

Goal: Enhance awareness, outreach and partnerships to improve honey bee health

Staff Leads: Mike Saccone (Keystone), Matt Mulica (Keystone)
Working Group Leads: Carissa Sauer (Almond Board of California); second lead vacant

Overall Progress

Major Initiatives	Progress	Achievements Since Prior Report	Issues, Risks, Mitigation	Upcoming activities and deliverables
Collateral: Website, fact sheets, presentations, etc.		• Updated fact sheet, presentation, website	• Current website's construction limits ability over long term to update efficiently and effectively	• Continued updates as appropriate
Conferences, tradeshows, Pollinator Week		• Presented at EAS, ESA, Sustainable Ag Summit, AHPA, ABF, Commodity Classic and shared materials for members to use during myriad presentations in 2018 and continuing into 2019		• Pollinator week outreach • Possible statement in response to BIP annual/winter loss numbers
Newsletter, media and social media promotion		• Regular newsletters, special edition emails, and content for members to utilize roughly quarterly • Social media regularly updated to highlight Coalition and its members		• Continued newsletters, social media, press releases, etc. as appropriate
Council on Agriculture Science and Technology (CAST) paper on Bee Health		• Paper released in July 2017		
Bee Healthy Roadmap		• Completed October 2014	• May be getting out of date; update only if budget and priority level align	

Note that calls of the Outreach WG will now be scheduled on an as-needed basis

No to little progress/ significant issues | **Slow progress/minor issues** | **Good Progress/no issues** | **Complete or Dormant**

HONEY BEE
HEALTH
COALITION

Tools and Resources Summary

Resources for growers, beekeepers, and more

Available at http://honeybeehealthcoalition.org and/or by contacting Keystone
See also: e-newsletters, Twitter (@beehealthorg), and Facebook (beehealthorg)

Crop Pest Management

- Canola Best Management Practices (USCA)
- Corn Best Management Practices (NCGA)
- Soybean Best Management Practices (USB)
- Crop Consultant Education Module (NPSEC)
- The Grower's and Beekeeper's Role Factsheets
- Incident Reporting Guide

Forage and Nutrition

- Recommendations to National and Federal Decision-Makers
- Report: Beekeeper Insights on Honey Bee Nutrition Supplements

Hive Management

- Tools for Varroa Management Guide
- Varroa Videos
- Varroa Bee Club Program (PowerPoint slides/recording)
- Varroa Management Decision Tool
- Best Management Practices for Bee Health: A Guide for Beekeepers
- Federal and State Contacts and Resources
- Hive Management Resources List
- Postcards to promote hive BMPs and varroa resources

Bee Integrated

- Bee Integrated Demonstration Project Fact Sheet
- Bee Integrated Demonstration Project Video

All/Other

- Supply Chain Sustainability Presentation and Factsheet
- CAST Paper on Why Bee Health Matters
- Coalition Fact Sheet, Video, and Briefing Presentation
- The Bee Healthy Roadmap
- The Bee Understanding Project Film

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HONEY BEE HEALTH COALITION

HONEY BEE HEALTH COALITION
2018/2019 STEERING COMMITTEE

Pete Berthelsen
Bee and Butterfly Habitat Fund

Keri Carstens
Corteva Agriscience

Danielle Downey
Project Apis m.

Linda Dudenhoeffer
Bayer CropScience

David Epstein *(ex officio)*
USDA Office of Pest Management Policy

Nathan Fields
National Corn Growers Association

George Hansen
American Beekeeping Federation

Chris Hiatt
American Honey Producers Association

Tammy Potter
Eastern Apicultural Society of North America, Inc.

Caydee Savinelli
Syngenta

Rod Scarlett *(ex officio)*
Canada Bee Health Roundtable

Robert Sears
Eastern Missouri Beekeepers Association

Ed Spevak
Saint Louis Zoo, WildCare Institute, Center for Native Pollinator Conservation

Thomas Steeger *(ex officio)*
U.S. Environmental Protection Agency

Richard Waycott
Almond Board of California

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HONEY BEE HEALTH COALITION

HONEY BEE HEALTH COALITION
MEMBER ORGANIZATIONS AND AGENCIES
APRIL 2019

Agricultural Retailers Association

Apiary Inspectors of America

Almond Board of California

American Beekeeping Federation

American Honey Producers Association

American Seed Trade Association

Apis Works

BASF

Bayer CropScience

The Bee and Butterfly Habitat Fund

Browning Honey Company

Canadian Association of Professional Apiculturists

Canada Bee Health Roundtable *(Ex Officio)*

Canola Council of Canada

Conservation Technology Information Center

CropLife America

CropLife Canada

Eastern Apicultural Society of North America, Inc.

Eastern Missouri Beekeepers Association

FieldWatch Inc

Florida Fruit and Vegetable Association

The Foundation for the Preservation of Honey Bees

Heartland Apicultural Society

Hive Tracks

Kellogg Company

Levin Family Foundation/Propolis Projects

National Association of State Departments of Agriculture

National Corn Growers Association

National Association of Wheat Growers

National Honey Board

National Pesticide Safety Education Center

NOD Apiary Products

Pepsi Company

Pheasants Forever

Project Apis m.

Saint Louis Zoo, WildCare Institute, Center for Native Pollinator Conservation

Syngenta

United Soybean Board

University of Maryland Department of Entomology

University of Nebraska – Lincoln

U.S. Apple Association

U.S. Canola Association

U.S. Department of Agriculture *(Ex Officio)*

U.S. Environmental Protection Agency *(Ex Officio)*

Valent U.S.A. Corporation

Veto-pharma

Vita Bee Health

Western Apicultural Society

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HONEY BEE HEALTH COALITION

Honey Bee Health Coalition Meeting Attendees Spring 2019		
Dorit	Avni	Bayer
Peter	Berthelsen	The Bee & Butterfly Habitat Fund
Jeff	Birk	BASF
Barbara	Bloetscher	Ohio Department of Agriculture
Dewey	Caron	Western Apicultural Society
Phil	Craft	Veto-pharma
Bob	Curtis	Almond Board of California
Danielle	Downey	Project Apis m.
Linda	Dudenhoeffer	Bayer CropScience
Daniel	Fay	Valent U.S.A. LLC
Nathan	Fields	National Corn Growers Association
Krispn	Given	Purdue University
George	Hansen	American Beekeeping Federation
Jerry	Hayes	Vita Bee Health
Chris	Hiatt	American Honey Producers Association
Alli	Langley	Keystone Policy Center
Karen	Levin	Propolis Projects/Levin Family Foundation
Steven	Levine	Bayer
Dorothey	Morgan	Kentucky Queen Bee Breeders Association
Tammy	Potter	Eastern Apicultural Society
Freddy	Proni	Veto-pharma
Mary	Reed	Texas Apiary Inspection Service
Dan	Schmehl	Bayer CropScience
Bob	Sears	Eastern Missouri Beekeepers Association
Julie	Shapiro	Keystone Policy Center
Mike	Smith	Conservation Technology Information Center
Tom	Smith	National Pesticide Safety Information Center
Burleson	Smith	BASF
Edward	Spevak	Saint Louis Zoo
Tom	Steeger	U.S. Environmental Protection Agency
Richard	Waycott	Almond Board of California
Jackie	Weiss	United Soybean Board
Dwight	Wells	Propolis Projects/Levin Family Foundation
James	Wilkes	Hive Tracks
Ty	Witten	Bayer
Jon	Zawislak	University of Arkansas Cooperative Extension Service

Message

From: ORR, THOMAS B [AG/1005] [thomas.orr@bayer.com]
Sent: 6/26/2019 6:26:26 PM
To: Meadows, Sarah [Meadows.Sarah@epa.gov]; ORR, THOMAS B [AG/1005] [thomas.orr@bayer.com]
CC: Baris, Reuben [Baris.Reuben@epa.gov]; Kenny, Daniel [Kenny.Dan@epa.gov]
Subject: RE: Dicamba Tolerant Corn

Sarah,

Thank you for following-up and proposing the new date. I will relay this proposed timing to my stakeholders and be in touch shortly.

Do you know if EPA has reviewed our data waiver request that was submitted in response to the February 6, 2019 deficiency letter?

Thanks,
Tom

From: Meadows, Sarah <Meadows.Sarah@epa.gov>
Sent: Tuesday, June 25, 2019 12:53 PM
To: ORR, THOMAS B [AG/1005] <thomas.orr@bayer.com>
Cc: Baris, Reuben <Baris.Reuben@epa.gov>; Kenny, Daniel <Kenny.Dan@epa.gov>
Subject: RE: Dicamba Tolerant Corn

Hi, Tom. We'll definitely need to renegotiate this date. More time is needed before we can develop an official position on this new use of dicamba. As you know, there are a litany of scientific and legal issues that we're dealing with which have been resource-intensive.

I suggest renegotiating for a year. If you are amenable to this, please send me an email requesting the new date of July 1, 2020 for EPA registration number 524-617, decision number 538753, and petition number 8F8659, decision number 538754.

Thanks,

Sarah
Sarah True Meadows, PhD
US Environmental Protection Agency
Office of Pesticide Programs
Registration Division – Herbicide Branch
(703) 347-0505
meadows.sarah@epa.gov

From: Schmid, Emily
Sent: Monday, June 24, 2019 1:24 PM
To: ORR, THOMAS B [AG/1005] <thomas.orr@bayer.com>
Cc: Baris, Reuben <Baris.Reuben@epa.gov>; Kenny, Daniel <Kenny.Dan@epa.gov>; MARVIN, THOMAS [AG/1920] <thomas.marvin@monsanto.com>; BHAKTA, TINA [AG/1005] <tina.bhakta@monsanto.com>; Meadows, Sarah <Meadows.Sarah@epa.gov>
Subject: RE: Dicamba Tolerant Corn

Hi Tom,

Thanks for contacting me about this. The PRIA date will need to be renegotiated. This action is now assigned to Sarah Meadows. She is in the process of confirming how long will be needed to complete the review and is going to reach out to you soon to get this renegotiated.

Best regards,
Emily

From: ORR, THOMAS B [AG/1005] <thomas.orr@bayer.com>
Sent: Monday, June 24, 2019 12:55 PM
To: Schmid, Emily <Schmid.Emily@epa.gov>
Cc: Baris, Reuben <Baris.Reuben@epa.gov>; Kenny, Daniel <Kenny.Dan@epa.gov>; MARVIN, THOMAS [AG/1920] <thomas.marvin@monsanto.com>; BHAKTA, TINA [AG/1005] <tina.bhakta@monsanto.com>
Subject: RE: Dicamba Tolerant Corn

Hi Emily. I am transitioning to the dicamba tolerant corn project from Simone and wanted to follow-up with you regarding this action. My understanding is that the PRIA date for the new proposed dicamba use in corn is July 1, 2019.

Monsanto Company, as subsidiary of Bayer AG, previously received an application deficiency letter regarding this action from EPA on February 6, 2019 in which a field volatility study conducted using XtendiMax on dicamba-tolerant corn was requested. Monsanto responded to the February 6, 2019 letter with a data waiver request for additional volatility studies. In this response, Monsanto summarized the vast amount of field volatility data that were previously submitted to EPA and highlighted the direct relevance of those data to the proposed dicamba use on dicamba-tolerant corn to support the study waiver request.

Do you anticipate that EPA will be able to finish the review of the data waiver request and the new use application prior to the PRIA date of July 1, 2019 or does the Agency wish to renegotiate the PRIA date?

Best regards,

Tom Orr
Global Regulatory Affairs Manager

///////////////////

Bayer Crop Science
Monsanto Company
Regulatory Science
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Tel: +1 636-737-9347
Cell: +1 314-422-1748
E-mail: thomas.orr@bayer.com
Web: http://www.bayer.com

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From: Schmid, Emily
Sent: Tuesday, September 04, 2018 9:23 AM
To: SEIFERT-HIGGINS, SIMONE [AG/1005] <simone.seifert-higgins@bayer.com>; MARVIN, THOMAS [AG/1920]

<thomas.marvin@monsanto.com>; BHAKTA, TINA [AG/1005] <tina.bhakta@monsanto.com>
Cc: Baris, Reuben <Baris.Reuben@epa.gov>; Kenny, Daniel <Kenny.Dan@epa.gov>
Subject: RE: Dicamba Tolerant Corn

Simone,

I'm not sure about what happened with this action before it got to me but the PRIA date is definitely July 1, 2019. We will do everything we can to make the PRIA date but May 15, 2019 won't be possible.

Best regards,
Emily

From: SEIFERT-HIGGINS, SIMONE [AG/1005] [mailto:simone.seifert-higgins@bayer.com]
Sent: Tuesday, September 04, 2018 10:15 AM
To: Schmid, Emily <Schmid.Emily@epa.gov>; SEIFERT-HIGGINS, SIMONE [AG/1005] <simone.seifert-higgins@bayer.com>; MARVIN, THOMAS [AG/1920] <thomas.marvin@monsanto.com>; BHAKTA, TINA [AG/1005] <tina.bhakta@monsanto.com>
Cc: Baris, Reuben <Baris.Reuben@epa.gov>; Kenny, Daniel <Kenny.Dan@epa.gov>
Subject: RE: Dicamba Tolerant Corn

Emily,
Thank you for your follow-up!

Apologies for the back-and-forth but I am surprised to learn about a July 1, 2019 PRIA date for this new corn use. It is my understanding that this action was coded R170 during a manager's meeting on March 1 which was held prior to issuance/receipt of the milestone #2 note (attached).

Are you indicating that it is expected to be difficult to meet the May 15, 2019 deadline? Could you please confirm the PRIA due date for this action.

Regards,
Simone

From: Schmid, Emily [mailto:Schmid.Emily@epa.gov]
Sent: Tuesday, September 04, 2018 7:01 AM
To: SEIFERT-HIGGINS, SIMONE [AG/1005] <simone.seifert-higgins@bayer.com>
Cc: Baris, Reuben <Baris.Reuben@epa.gov>; Kenny, Daniel <Kenny.Dan@epa.gov>
Subject: RE: Dicamba Tolerant Corn

Simone,

Thank you for making me aware of the meeting. However, the PRIA date for the corn use is 7/1/19. With our current resource constraints it has been difficult to complete new uses within the PRIA timeframe so I don't see how it would be possible to complete our review 1-2 months early. I assume the milestone that gave you the date in May was before it was recoded since the decision time for an R298 is 13 months and for R170 it is 15 months.

Let me know if you have any other questions.

Best regards,
Emily

From: SEIFERT-HIGGINS, SIMONE [AG/1005] [mailto:simone.seifert-higgins@bayer.com]
Sent: Monday, August 27, 2018 9:46 AM
To: Schmid, Emily <Schmid.Emily@epa.gov>; SEIFERT-HIGGINS, SIMONE [AG/1005] <simone.seifert-higgins@bayer.com>
Subject: RE: Dicamba Tolerant Corn

Emily,
Thank you for your explanation! As indicated I did not intend to reassign PRIA but wanted to better understand timelines for review and decision-making. Based on the systems-generated milestone #2, PRIA timeline for the proposed dicamba use in dicamba-tolerant (DT) corn is set to be due on May 15, 2019.

I do want to share with you that Monsanto, now Bayer, submitted dicamba data for evaluation at the 2019 Extraordinary Joint FAO/WHO Meeting on Pesticide Residues (JMPR). The Extra JMPR session will be held May 7-17, 2019. Bayer is requesting to amend the existing Codex definition of residue for dicamba to include DCSA (dichlorosalicylic acid), which is the major metabolite in DT crops. Dicamba use over-the-top in/on DT cotton and soy is approved; however, the new use pattern (GAP) for DT corn is pending. While we have obtained permission from the Secretariat to include corn data in our submission, it is desirable to have the corn GAP approved at the time of the JMPR meeting. I do recognize the extremely tight timeline and am aware of the current resource constrains at the EPA; therefore, please don't hesitate to reach out to me if there is any assistance I can provide to facilitate your review.

Looking forward to working with you!

Best regards,

Simone Seifert-Higgins, Ph.D.
Regulatory Affairs Manager

///////////////

Bayer U.S. – Crop Science
700 Chesterfield Parkway West
Chesterfield, MO 63017

Office Tel:+1 (636) 737-9571
Mobile Tel:+1 (314) 330-3053
E-mail: simone.seifert-higgins@bayer.com
Web: http://www.bayer.com

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LinkedIn /// YouTube

From: Schmid, Emily [mailto:Schmid.Emily@epa.gov]
Sent: Thursday, August 23, 2018 10:26 AM
To: SEIFERT-HIGGINS, SIMONE [AG/1005] <simone.seifert-higgins@bayer.com>
Subject: RE: Dicamba Tolerant Corn

Hi Simone,

I think all new GMO uses are given PRIA codes as new food uses since all of the work that goes into reviewing a new use must also be done for a GMO so it is basically a new use. I think if PRIA 4 is ever passed, there will be a more clear code. In the CFR, the tolerance is not specified as genetically modified, it is just listed as corn, soybean, etc. So the new tolerance will be set for a crop that already has a tolerance, therefore it will be amended. I hope this answers your question. If not, you might want to contact Reuben since he works with coding much more than I do.

Best regards,
Emily

From: SEIFERT-HIGGINS, SIMONE [AG/1005] [mailto:simone.seifert-higgins@bayer.com]
Sent: Wednesday, August 22, 2018 4:04 PM
To: Schmid, Emily <Schmid.Emily@epa.gov>
Subject: RE: Dicamba Tolerant Corn

Hi Emily,

I would like to offer some additional explanations to my voice mail related to the HT3 corn submission and your review. While I certainly agree with your assessment to refer to this action as an amendment of an existing tolerance I would like to understand your thoughts that led to your conclusion. Reason for my question it that I originally submitted this petition under PRIA R298 (amendment); however, after some back-and-forth with the PRIA team this action was re-coded as R170 (new use/establishing new tolerance). I have attached respective email correspondence with Mick Yanchulis for your reference.

I would appreciate if you could give me a ring at your convenience at (636) 737-9571 to further discuss.

Regards,
Simone

From: Schmid, Emily [mailto:Schmid.Emily@epa.gov]
Sent: Wednesday, July 11, 2018 3:25 PM
To: SEIFERT-HIGGINS, SIMONE [AG/1005] <simone.seifert-higgins@monsanto.com>
Cc: MARVIN, THOMAS [AG/1920] <thomas.marvin@monsanto.com>
Subject: Dicamba Tolerant Corn

Good afternoon,

I am the reviewer assigned to the dicamba tolerant corn use you submitted. Could you revise the notice of filing to reflect that this is amending a tolerance instead of establishing a tolerance? Also, please specify the corn... I assume it is field corn? I have attached a cleaned up version that I wanted to let you look at before I sent it in to be published anyway so if you could make those changes to the attached version and make sure you are okay with my edits, that would be great.

Let me know if you have any questions.

Best regards,

Emily Schmid
Biologist
U.S. Environmental Protection Agency
Registration Division
Herbicide Branch

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Message

From: Annette Bloomberg [annette.bloomberg@bayer.com]
Sent: 4/10/2018 12:55:14 PM
To: Baris, Reuben [Baris.Reuben@epa.gov]
CC: BCSReg_Archive [esepamailbox@bayer.com]
Subject: FW: Esplanade 200 SC label amendment and supplemental extension
Attachments: 2018-02-16 Submit FTAmend to extend expiration date for supplemental Release & Restore Esplanade 200 SC 432-1516.pdf; 432-1516 Esplanade 200 SC submit Amendment add NY Aerial restriction to Release and Restore Section 10_30_17.pdf; 432-1516 supplemental label extension & NY restriction clean 4_1_18 000292_SL_02.02.pdf; 432-1516 supplemental label extension & NY restriction highlighted 4_1_18 000292_SL_02.02.pdf

Hi Reuben:
I hope you are doing well.
The deadline for the expiration of the attached supplemental is quickly approaching (early May). Is this action getting close to its review on your team's schedule? It was sent last October.
Thank you so much for your help with this request. On the phone, you indicated you would address both actions simultaneously, since they are related.

Take care,
Annette

From: Annette Bloomberg
Sent: Monday, April 02, 2018 10:18 AM
To: 'Baris, Reuben'
Cc: BCSReg_Archive
Subject: FW: Esplanade 200 SC label amendment and supplemental extension

Hi Reuben:
I am resending this email with the supplemental labels including the NY restriction. Do you know when your group will be able to work on this amendment? You said you were up to September a couple of weeks ago. This was submitted in October.

Thank you. Hope you had a nice holiday weekend.
Annette

From: Annette Bloomberg
Sent: Wednesday, March 21, 2018 9:39 AM
To: 'Baris, Reuben'
Cc: BCSReg_Archive
Subject: Esplanade 200 SC label amendment and supplemental extension

Hi Reuben:
Thank you for your call last Friday.
I am following up regarding the Esplanade 200 SC label amendment (sent in late October) and the supplemental expiration date extension. I have attached both submissions for your convenience. You indicated that you would work on both of them simultaneously. We can add the NY restriction to the supplemental at the review as you suggested.

Thank you for your direction and have a nice day.
Looks like your weather is not too good today based on the weather report last night. Be safe.
Annette

Science For A Better Life

Crop Science Division
Bayer U.S. LLC
2 T.W. Alexander Drive
Research Triangle Park, NC 27709

Tel: +1 919 549-2608
Mobile: +1 919 627-0498
E-mail: annette.bloomberg@bayer.com
Web: http://www.bayer.com

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Please read instructions on reverse before completing form. Form Approved. OMB No. 2070-0060, Approval expires 2-28-95

EPA

United States
Environmental Protection Agency
Washington, DC 20460

☐ Registration
☐ Amendment
☐ Other

OPP Identifier Number

Application for Pesticide - Section I

1. Company/Product Number	2. EPA Product Manager	3. Proposed Classification
432-1516	Debra Rate	☐ None ☐ Restricted
4. Company/Product (Name) Esplandade 200 SC Herbicide	PM# 25	

5. Name and Address of Applicant *(Include ZIP Code)*

Bayer CropScience
P.O. Box 12014, 2 T.W. Alexander Drive
Research Triangle Park, NC 27709

☐ *Check if this is a new address*

6. **Expedited Reveiw.** In accordance with FIFRA Section 3(c)(3)(b)(i), my product is similar or identical in composition and labeling to:

EPA Reg. No. _____

Product Name _____

Section - II

☐ Amendment - Explain below.
☐ Resubmission in response to Agency letter dated _____
☐ Notification - Explain below.
☐ Final printed labels in repsonse to Agency letter dated _____
☐ "Me Too" Application.
☐ Other - Explain below.

Explanation: Use additional page(s) if necessary. (For section I and Section II.)

Amendment: Add the state of New York Restriction - no aerial application to the Release and Restoration of Desirable Vegetation Section
email: annette.bloomberg@bayer.com phone; 919-549-2608 Mobie: 919-627-0498

Section - III

1. Material This Product Will Be Packaged In:

Child-Resistant Packaging	Unit Packaging	Water Soluble Packaging	2. Type of Container
☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Metal ☐ Plastic ☐ Glass ☐ Paper ☐ Other (Specify) _____
**** Certification must be submitted***	If "Yes" Unit Packaging wgt. / No. per container	If "Yes" Package wgt / No. per container	

3. Location of Net Contents Information	4. Size(s) Retail Container	5. Location of Label Directions
☐ Label ☐ Container		☐

6. Manner in Which Label is Affixed to Product ☐ Lithograph ☐ Paper glued ☐ Stenciled ☐ Other _____

Section - IV

1. Contact Point *(Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)*

Name	Title	Telephone No. (Include Area Code)
Annette M. Bloomberg	Regulatory Product Manager	(919) 549-2608

Certification

I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowlingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.

6. Date Application Received **(Stamped)**

2. Signature	3. Title
Annette M. Bloomberg	Regulatory Product Manager
4. Typed Name	**5. Date**
Annette M. Bloomberg	October 30, 2017

Bayer CropScience

October 30, 2017

Document Processing Desk (Amend)
Office of Pesticide Programs (7504P)
US Environmental Protection Agency
Room S-4900, One Potomac Yard
2777 S. Crystal Drive
Arlington, VA 22202-4501

Bayer CropScience
P. O. Box 12014
2 TW Alexander Drive
Research Triangle Park
NC 27709
Tel: 919 549-2608

ATTN: Debra Rate (Product Manager Acting 25)

SUBJECT: **Esplanade 200 SC Herbicide; EPA Reg. 432-1516**
Amendment to add the restriction "No aerial application in New York" to the "Release and Restoration of Desirable Vegetation" section of the label.

Dear Ms. Rate:

With this submission, Bayer Environmental Science (a division of Bayer CropScience LP) is amending the Esplanade 200 SC label (EPA Reg. No 432-1516) label to restrict aerial applications in the State of New York in the "Release and Restoration of Desirable Vegetation" section of the label as requested by the State of New York.

In support of the proposed action, enclosed please find the following documentation:

1. EPA Form 8570-1
2. 2 copies of proposed labeling (clean and shaded versions)

I trust that this completes the documentation for this registration action. If you have any questions or require further information, please contact me either by phone at 919-549-2608 (work), 919-627-0498 (mobile) or e-mail at annette.bloomberg@bayer.com.

Sincerely,

Annette M. Bloomberg

Annette M. Bloomberg
Regulatory Manager

GROUP 29 HERBICIDE

Esplanade 200 SC

Preemergent Herbicide for the Control of Annual Grasses and Broadleaf Weeds in Non-Residential Non-Crop Areas, Railroad and Rail Yards, Managed Roadsides, Fence Rows, Utilities, Hardscapes, Industrial, Municipal, and Government Sites, and for the Release or Restoration of Desirable Vegetation in Parks and Open Space, Wildlife Management Areas, Recreational Areas, Fire Rehabilitation Areas, Prairies and Fire breaks.

Editorial Note – [Bracketed text] is optional language

ACTIVE INGREDIENT:
Indaziflam (CAS No: 730979-19-8).....19.05%

OTHER INGREDIENTS:..... 80.95%
TOTAL..... 100.00%

EPA Reg. No. 432-1516 **EPA Est.**

Contains 1.67 pounds of indaziflam per gallon

KEEP OUT OF REACH OF CHILDREN

CAUTION

For MEDICAL and TRANSPORTATION Emergencies ONLY Call 24 Hours A Day 1-800-334-7577
For PRODUCT USE Information Call 1-800-331-2867

See [Back] [Side] Panel for First Aid Instructions and [Leaflet][Booklet] for Complete Precautionary Statements and Directions for Use. (Note to reviewer: Location of additional precautionary statements, directions for use will vary between those listed, depending on container type/size.)

FIRST AID	
If swallowed:	• Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give anything to an unconscious person.
If on skin:	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
If inhaled:	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. • Call a poison control center or doctor for further treatment advice.
For MEDICAL Emergencies Call 24 Hours A Day 1-800-334-7577 Have the product container or label with you when calling a poison control center or doctor or going for treatment.	

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Harmful if swallowed, absorbed through the skin or inhaled. Avoid contact with skin, eyes, or clothing. Avoid breathing spray mist. All mixers, loaders, applicators and other handlers must wear long-sleeved shirt, long pants, shoes plus socks, and waterproof gloves. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using toilet. Remove and wash contaminated clothing before reuse.

ENVIRONMENTAL HAZARDS

This product is toxic to fish, aquatic invertebrates, and plants. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean watermark. Do not contaminate water when disposing of rinsate or washwater. This product may impact water through spray drift or runoff. Follow directions for use to avoid spray drift and runoff. A level well maintained vegetative buffer strip between areas to which this product is applied and surface water features including ponds, streams, and springs will reduce the potential of this product entering water from rainfall runoff. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours.

Ground Water Advisory: This pesticide has properties and characteristics associated with chemicals detected in groundwater. This chemical may leach into ground water if used in areas where soils are permeable, particularly where the water table is shallow.

Surface Water Advisory: This pesticide may impact water quality due to runoff of rainwater. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having a high potential for reaching surface water via runoff for several months or more after application.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.
Read the entire label before using this product

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

SHAKE CONTAINER WELL BEFORE USING.

PRODUCT INFORMATION

Esplanade 200 SC is a selective, preemergent, alkylazine herbicide for control of many annual grasses and broadleaf weeds in railroad, roadside, hardscapes, industrial areas, utilities, airports, government and military installations, managed areas (petroleum tank farms, pumping stations, storage areas, rail and utility rights-of-way, utility substations, lumberyards, around farm buildings, non-irrigation ditch banks, fence rows, manufacturing sites, office buildings, educational facilities, parking lots, and under asphalt or concrete as part of site preparation).

Esplanade 200 SC may be used to release or re-establish desirable perennial grasses, forbs, shrubs and trees in non-crop areas such as parks and open space, wildlife management areas, recreational areas, fire rehabilitation areas, prairies and fire breaks.

Esplanade 200 SC controls weeds by reducing the emergence of seedlings through inhibition of cellulose biosynthesis (CB Inhibitor). Necrosis or yellowing may also be observed if the herbicide is applied to herbaceous tissue such as leaves and green stems of susceptible plants. The herbicide needs to be activated prior to weed germination for most effective control. For maximum activity against germinating weeds, Esplanade 200 SC requires rainfall (minimum 0.25 inches) within several weeks after application to activate the herbicide.

Esplanade 200 SC has minimal post emergent activity and generally does not control weeds that have emerged. A post emergent herbicide such as Finale® Herbicide may be mixed with Esplanade 200 SC to control existing weeds. Esplanade 200 SC does not control tubers, rhizomes, and woody vegetation.

Esplanade 200 SC can be applied to terrestrial non-crop sites that contain areas of casual water of a temporary nature as a result of surface water collecting in equipment wheel ruts or in other depressions created by management activities.

Aerial applications of Esplanade 200 SC are allowed to release or re-establish desirable vegetation in non-crop areas such as parks and open space, wildlife management areas, recreational areas, fire rehabilitation areas, prairies, and fire breaks. For all other uses, only ground application is permitted.

USE RESTRICTIONS

- Do not apply directly to water or to soil where standing water is present except as specified on this label.
- Do not apply in or on irrigation ditches/canals including the outer banks.
- Do not contaminate water intended for irrigation and domestic use.
- Do not treat or allow spray drift or runoff to fall into irrigation ditches/canals or other channels that carry water that may be used for irrigation purposes.
- Do not exceed 7 fl oz per acre of Esplanade 200 SC in a single application for all Industrial Vegetation Management applications.
- Do not exceed 10 fl oz per acre of Esplanade 200 SC for all Industrial Vegetation Management applications within a calendar year or in a 12-month period from the previous application.

- Do not apply Esplanade 200 SC to newly seeded turf.
- Do not apply Esplanade 200 SC through an irrigation or chemigation system.
- Aerial applications are only allowed to release or re-establish desirable vegetation in non-crop areas such as parks and open space, wildlife management areas, recreational areas, fire rehabilitation areas, prairies, and fire breaks.
- Do not apply or otherwise permit this product or sprays containing this product to come into contact with any non-target crop or desirable plants.
- Do not make applications when circumstances favor movement from treatment sites.
- Do not apply to frozen or snow covered ground.
- Do not graze or feed forage, hay, or straw from treated areas to livestock.
- Do not use on residential lawns or commercial lawns, golf courses, sod farms, or production and landscape ornamentals.
- Esplanade 200 SC is not for sale, distribution, or use in Nassau County or Suffolk County in New York State.

USE PRECAUTIONS

- Applications made to areas where runoff water flows onto agricultural land may injure crops.
- Applications made during periods of intense rainfall, to soils saturated with water, or soils through which rainfall will not readily penetrate may result in runoff and movement of Esplanade 200 SC.
- Treated soil should be left undisturbed to reduce the potential for Esplanade 200 SC movement by soil erosion, by wind, or water.
- Applications should be made only when there is little or no risk of spray drift or movement of applied product into sensitive areas. Sensitive areas are defined as bodies of water (ponds, lakes, rivers, and streams), habitats of endangered species and non-labeled agricultural crop areas. Refer to the Spray Drift Management section of this label for more details.
- Avoid application to powdery, dry, light or sandy soil when there is little likelihood of rainfall soon after application. Injury to crops or desirable vegetation may result if treated soil is washed, blown, or moved into these areas.

APPLICATION INFORMATION

Apply Esplanade 200 SC with a properly calibrated sprayer according to the manufacturer's directions and check periodically to be certain that the equipment is working properly prior to each use. Uniform application is essential for satisfactory weed control. Avoid overlap. Shut off spray booms while starting, turning, slowing, or stopping to avoid off-target application.

When spraying close or next to ponds, lakes, rivers, and streams be cognizant of keeping the spray solution from reaching the water.

For all applications, follow these guidelines: use spray volumes of 10-100 gallons per acre, spray boom height and spray pressures as low as practical, use coarse droplet producing nozzle tips, use drift control additives and shielded sprayers where practical, and spray when wind speed is low. See the Spray Drift Management section for more details. The use of a hand-held or backpack sprayer is allowed, especially when treating smaller areas. The water volume and use rates are the same on a given area as if treating with a much larger boom sprayer. When using a hand-held or backpack sprayer, do not exceed the use rate restrictions stated on this label.

MIXING INSTRUCTIONS

Ensure that the application equipment has been thoroughly cleaned from previous use before using to apply Esplanade 200 SC. Fill the spray tank with 1/2 of the required volume of water prior to the addition of Esplanade 200 SC. Add the proper amount of Esplanade 200 SC, and then add the rest of the water. Maintain sufficient agitation to ensure an adequate spray mixture during application. If Esplanade 200 SC is to be applied in a tank mixture with other pesticides, add the appropriate amounts of the tank mix partners in the following order: (a) products in water-soluble packaging (WSP), (b) WP, (c) WG or other dry flowables, (d) fertilizers, (e) Esplanade 200 SC, (f) other aqueous suspension products (SC), (g) soluble liquids, (h) emulsifiable concentrates and other organic-solvent based formulations. Continue to fill the tank with water to the desired volume while agitating. **Maintain sufficient agitation during application to ensure a uniform spray mixture.**

Resuspending Esplanade 200 SC in Spray Solution: Like other suspension concentrates (SC), Esplanade 200 SC will settle if left standing without agitation. Re-agitate the spray solution before application.

COMPATIBILITY TESTING WITH OTHER PESTICIDES

A compatibility test must be conducted with any potential tank mix partner with Esplanade 200 SC. Using a clear container, conduct the test as described below:

Fill the container three-quarters full with water.

1. Add the appropriate amount of tank mix partner in the following order: (a) WP (b) dry flowable (c) Esplanade 200 SC (d) aqueous suspensions, (e) soluble liquids, (f) emulsifiable concentrates. Shake or gently stir after each addition to mix thoroughly.
2. After adding all ingredients, let the mixture stand for 15 minutes and look for separation, large flakes, precipitates, gels, and heavy oily film or other signs of incompatibility.
3. If the compatibility test shows signs of incompatibility, do not tank mix the product tested with Esplanade 200 SC.

Vegetation Management Information

Timings, Use Rates, and Maximum Seasonal Rate for Esplanade 200 SC

Apply Esplanade 200 SC prior to weed seed germination. Esplanade 200 SC does not generally control weeds that have emerged. For maximum weed control, the herbicide needs to reach the soil surface and be activated by rainfall or adequate soil moisture. Apply Esplanade 200 SC in the spring for control of spring and summer germinating weeds and apply in the fall for control of winter weeds. The desired rate of Esplanade 200 SC depends on the residual weed activity required and restrictions on the maximum amount of Esplanade 200 SC per season. Esplanade 200 SC may be applied at 3.5-7 fl oz per acre. Do not exceed 7 fl oz of Esplanade 200 SC for a single application. Applications of Esplanade 200 SC must not exceed the maximum label rate (10 fl oz per acre) in a 12-month period after the previous application.

Factors including soil type, rainfall, and the amount of vegetation at the time of treatment may affect weed control. Lower rates of Esplanade 200 SC may be effective for sandy soils, whereas organic soils may require higher rates. If the herbicide is not activated by rainfall prior to weed germination, control may be reduced.

For late fall applications, apply Esplanade 200 SC prior to when the ground freezes.

Tank Mix Combinations

Tank-mix combinations of Esplanade 200 SC plus a non-selective herbicide such as Finale® Herbicide or glyphosate will control existing undesirable vegetation in dormant warm season grasses. Applied as a broadcast spray, Esplanade 200 SC plus a non-selective herbicide such as Finale® Herbicide or glyphosate will provide pre and postemergent control of susceptible species listed on the respective labels of the herbicides in the tank mixture.

Esplanade 200 SC may be tank mixed with the following herbicide active ingredients but not limited to: 2,4-D, aminopyralid, bromacil, dicamba, flumioxazin, fosamine, glufosinate ammonium (Finale® Herbicide), glyphosate, hexazinone, metsulfuron, picloram, simazine, sulfometuron, and triclopyr.

Follow all use restrictions on this label and for all tank mix partners. It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. Note the most restrictive language may come from different labels.

Apply mixtures so that the spray solution covers the soil surface in a uniform manner. If uniform coverage is not achieved, preemergent activity will be inconsistent.

Weeds Controlled or Suppressed by Esplanade 200SC	
Broadleaf Weeds Controlled	
American black nightshade	*Solanum americanum*
Bittercress	*Cardamine* sp.
Buckweed, wild (seedlings only)	*Polygonum convolvulus*
California burclover	*Medicago polymorpha*
Canada thistle, common (seedlings)	*Circium arvense*
Carpetweed	*Mollugo verticillata*
Chickweed, common	*Stellaria media*
Chickweed, Mouse-ear	*Cerastium vulgatum*
Clover, White	*Trifolium repens*
Corn speedwell	*Veronica arvensis*
Cudweed, Linear-leaf/purple	*Gnaphalium purpureum*
Curly dock (seedlings)	*Rumex crispus*
Cutleaf evening primrose	*Oenothera laciniata*
Dandelion, cat's ear	*Hypochoeris radicata*
Dandelion, common (seedlings)	*Taraxacum officinale*
Doveweed	*Murdannia nudiflora*
Eclipta	*Eclipta alba*
Evening primrose, common	*Oenothera biennis*

Evening primrose, cutleaf	*Oenothera laciniata*
Filaree, redstem	*Erodium cicutarium*
Fleabane, blackleaved	*Conza bonariensis*
Florida pusley	*Richardia scabra*
Gromwell, Yellow	*Amsinckia calycina*
Groundsel, common	*Senecio vulgaris*
Hairy fleabane	*Erigeron bonariensis*
Hairy nightshade	*Solanum sarrachoides*
Henbit	*Lamium amplexicaule*
Horseweed/Marestail	*Erigeron canadensis*
Kochia	*Kochia scoparia*
Lambsquarters, common	*Chenopodium album*
Lawn burweed	*Soliva pterosperma*
Little mallow	*Malva parviflora*
Long-stalk phyllanthus	*Phyllanthus tenellus*
Panicle willowweed	*Epilobium paniculatum*
Plantain, Buckhorn	*Plantago lanceolata*
Plantain, Paleseed	*Plantago virginica*
Prostrate knotweed	*Polygonum aviculare*
Prostrate pigweed	*Amaranthus blitoides*
Prostrate spurge	*Euphorbia humifusa*
Puncturevine	*Tribulus terrestirs*
Purslane, common	*Portulaca oleracea*
Ragweed, common	*Ambrosia artimisiifolia*
Red tasselflower	*Emilia sonchifolia*
Redmaids	*Calandrinia caulescens*
Redroot pigweed	*Amaranthus retroflexus*
Redstem fleabane/Storksbill	*Erodium cicutarium*
Russian Thistle	*Salsola tragus*
Shepherd's-purse	*Capsella bursa-pastoris*
Sowthistle, annual	*Sonchus olerachus*
Spotted catsear	*Hypochoeris radica*
Swinecress	*Coronopus didymus*
Tropic ageratum	*Ageratum conycoides*
Velvetleaf	*Abutilon theophrasti*
Wild buckwheat (seedlings)	*Polygonum convolvulus*
Wild mustard	*Sinapis arvensis*
Yellow starthistle	*Centaurea solstitialis*

Grasses and Sedges Controlled	
Annual bluegrass	*Poa annua*
Annual bromegrass	*Bromus* spp.
Barnyardgrass, common	*Echinochloa crus-galli*
Cheatgrass	*Bromus secalinus*
Crabgrass	*Digitaria* species
Crabgrass, Henry	*Digitaria adscendens*
Crabgrass, Large/Hairy	*Digitaria sanguinalis*
Crabgrass, Smooth	*Digitaria ischaemum*
Downy brome	*Bromus tectorum*
False chamomile	*Matricaria maritime*
Foxtail brome	*Bromus rubens*
Foxtail, Giant	*Setaria faberi*
Foxtail, Green	*Setaria viridis*
Foxtail, Yellow	*Pennisetum glaucum*
Goosegrass	*Eleusine indica*
Guineagrass	*Panicum maximum*
Medusahead	*Taeniatherum caput-medusae*
Mouse barley	*Hordeum murinum*
Rice flatsedge	*Cyperus iria*
Rye, Feral	*Secale cereale*
Ryegrass, Italian	*Lolium multiflorum*
Ryegrass, Perennial	*Lolium perenne*
Sandbur	*Cenchrus longispinus*
Sedge, annual	*Cyperus spp.*
Sprangletop	*Leptochloa* spp.
Tufted lovegrass	*Eragrostis pectinacea*
Weeds Suppressed	
Black medic	*Medicago lupulina*
Black mustard	*Brassica nigra*
False chamomile	*Matricaria maritime*
London rocket	*Sisymbrium irio*
Nutsedge, purple	*Cyperus rotunda*
Nutsedge, yellow	*Cyperus esculentus*
Prickly lettuce	*Lactuca serriola*
Sesbania, hemp	*Sesbania exaltata*
Sida, prickly/teaweed	*Sida spinosa*
Southern brassbuttons	*Cotula australis*
Sunflower, common	*Helianthus* spp.
Vetch, purple	*Vicia benghalensis*
Wild carrot	*Daucus carota*
Woodsorrell, yellow	*Oxalis stricta*
Woodsorrel/Oxalis	*Oxalis* species

Use Sites for Esplanade 200 SC	**Rate Range (fl oz/A)**	**Maximum Single Use Rate (fl oz/A)**	**Maximum Total Yearly Rate (fl oz/A)**
Rail and Rail Yards	3.5*-7	7	10
Managed Roadsides	3.5-7	7	10
Warm Season Turf Release	3.5-5	5	10
Restoration or release of desirable vegetation	3.5**-7	7	10
All other use sites listed	3.5-7	7	10

*In Rail and Rail yard use sites, the 3.5 oz rate of Esplanade 200 SC should only be applied under low weed pressure in combination with another approved herbicide. This rate is not intended for stand-alone treatments.

**The 3.5 fl oz rate of Esplanade 200 SC should only be applied under low weed pressure when less preemergence residual control is desired.

Bareground Applications for Non-Residential Non-Crop Sites

Bareground is desired at many non-crop sites for reducing fire hazards, maintaining appropriate lines-of-site, and aesthetic considerations. Examples of sites include but are not limited to guardrails and some median strips near highways, hardscapes, parks, airports, utilities, government and military installations, around farm buildings, manufacturing sites, office buildings, educational facilities, parking lots, and managed areas. Esplanade 200 SC may be used alone for residual weed control or in tank mixture. Tank mixtures with post emergent herbicides help to control existing weeds. Observe use restrictions for all herbicides if a tank mixture is applied. Use-rates for bareground applications depend on the duration of weed control desired and the weed species listed on this label. Apply Esplanade 200 SC at 5-7 fl oz per acre. A repeat application can be made but not to exceed a total amount of 10 fl oz per acre per year.

Restriction: Applications to hardscapes (e.g. patios, paved parking lots, and walkways) may be made by spot application only.

Railroads and Rail Yards

Esplanade 200 SC may be used for preemergent residual control of certain weeds near railroad tracks, ballasts, and rail yards. Follow application instructions under **Bareground Applications** where bareground is the desired result. In situations where warm season turfgrass coverage is desired, such as at railroad crossings, follow use directions under the **Warm Season Turf Release** section of this label. Apply Esplanade 200 SC at 5-7 fl oz per acre. A repeat application can be made but not to exceed a total amount of 10 fl oz per acre per year.

Warm Season Turf Release

Esplanade 200 SC may be used to promote the growth of warm season grasses in areas where low maintenance vegetation or erosion control is desired. Established bermudagrass (*Cynodon dactylon*), centipedegrass (*Eremochloa ophiuroides*), bahiagrass (*Paspalum notatum*), buffalograss (*Buchloe dactyloides*), and Zoysiagrass *(Zoysia spp.)* are tolerant to Esplanade 200 SC at rates up to 5 fl oz per acre. Application of Esplanade 200 SC in the spring or fall to these grasses will control labeled weeds and allow low maintenance turf to develop. A repeat application can be made but not to exceed a total amount of 10 fl oz per acre per year. Cool season grasses such as Kentucky bluegrass (*Poa pratensis*), perennial ryegrass (*Lolium perenne*), and fescues (*Festuca sp*) are not tolerant to Esplanade 200 SC. Use Esplanade 200 SC on these grasses only when removal of these grasses is desired.

Esplanade 200 SC can inhibit the emergence of seed and damage newly emerged seedlings. Seeding into turf treated with Esplanade 200 SC should be delayed until at least **8 months** after application. Applications to newly seeded turf made sooner than **8 months** after emergence may significantly reduce stand establishment and turf vigor.

Release or Restoration of Desirable Vegetation

Esplanade 200 SC may be used to release or re-establish desirable perennial grasses, forbs, shrubs and trees in non-crop areas such as parks and open space, wildlife management areas, recreational areas, fire rehabilitation areas, prairies and fire breaks.

Application Timings and Rates

Apply Esplanade 200 SC at 3.5 to 7 fl oz per acre. The 3.5 fl oz rate of Esplanade 200 SC should only be applied under low weed pressure when less preemergence residual control is desired. For the best residual control, apply Esplanade 200 SC at 5 to 7 fl oz per acre.

Esplanade 200 SC may be applied by ground or aerial equipment (helicopter or fixed wing).

Not for aerial use in the State of New York.

Timing of application is determined by precipitation expectation and weed targets. Apply during periods when sufficient precipitation to activate the herbicide is expected prior to target weed germination, but avoid application if heavy rain is expected which can move treated soil into areas with crops or desirable vegetation.

Esplanade 200 SC has minimal post emergent activity and generally does not control weeds that have emerged. A labeled post emergent herbicide may be mixed with Esplanade 200 SC to control existing weeds. Refer to "Tank Mix Combinations" section for specific tank mix instructions.

Low rainfall areas of the West: Apply in the fall, winter, or spring. Esplanade 200 SC will not control winter annuals that have emerged at the time of application or that emerge prior to activating rainfall. A post emergence tank mix partner is needed to control winter annuals that have emerged at the time of application. Susceptible winter annual weeds that have emerged and escape the post emergence herbicide may be controlled preemergence the following season depending on the rate of Esplanade 200 SC used. Esplanade 200 SC at the highest labeled rate may provide several years of residual preemergence control of winter annual grasses such as downy brome, cheatgrass, feral ryegrass, and medusahead.

High rainfall areas of the East: Apply in the fall to control winter annual weeds or apply in the spring to control spring and summer germinating weeds. A tank mix partner is needed to control weeds that have emerged at the time of application.

Established perennial grasses that are tolerant to Esplanade 200 SC:

The following tables list species that have demonstrated tolerance to Esplanade 200 SC. When treating areas with desirable species not listed in the tables, treat a small area to confirm tolerance prior to large scale use.

Cool Season Grasses	Warm Season Grasses
Crested Wheatgrass (*Agropyon cristatum*)	Blue Grama (*Bouteloua gracilis*)
Green Needlegrass (*Nassella viridula*)	Sand Dropseed (*Sporobolus cryptandrus*)
Intermediate Wheatgrass (*Thinopyrum intermedium*)	
Needle-and-thread (*Hesperostipa comata*)	
Prairie Junegrass (*Koeleria macrantha*)	
Streambank Wheatgrass (*Elymus lanceolatus*)	
Western Wheatgrass (*Pascopyrum smithii*)	

Established forbs and shrubs that are tolerant to Esplanade 200 SC:

Forbs and Shrubs
Broom groundsel (*Senecio spartioides*)
Fringed Sage (*Artemisia frigida*)
Lemon Scurfpea (*Psoralidium lanceolatum*)
Louisiana Sage (*Artemisia ludoviciana*)
Prickly Pear (*Opuntia*)
Porter's Aster (*Symphyotrichum porteri*)
Scarlet globemallow (*Sphaeralcea coccinea*)
Short's milkvetch (*Astragalus shortianus*)
Sulphur Flower (*Eriogonum umbellatum*)
Western Ragweed (*Ambrosia psilostachya*)
Wild Tarragon (*Artemisia dracunculus*)

Use Restrictions:

Do not apply by air in the State of New York.
Do not apply to frozen or snow covered ground.
Do not graze or feed forage, hay, or straw from treated areas to livestock.

Precautions:

Avoid application to powdery, dry, light or sandy soil when there is little likelihood of rainfall soon after application. Injury to crops or desirable vegetation may result if treated soil is washed, blown, or moved into these areas.

If planning to plant desirable species in the treated area, avoid planting for at least eight months after application. A field bioassay must then be completed before planting. To conduct a field bioassay, grow to maturity test strips of the species you plan to plant. The test strips should cross the entire area including knolls and low areas. Response to the field bioassay will indicate whether or not to plant the species grown in the test strips. If no injury (such as poor germination, stunting, chlorosis, malformation, or necrosis) the species grown in the test strips may be planted.

Aerial Use Directions (Release or Restoration of Desirable Vegetation)

For aerial application (helicopter and fixed wing aircraft), use 5-30 gallons of spray volume per acre.

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops.
1. The distance of the outer most nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
2. Nozzles must always point backward, parallel with the air stream and never be pointed downwards more than 45 degrees.
3. All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers.

Where states have more stringent regulations, they must be observed. The applicator should be familiar with and take into account the information covered in the Aerial Drift Reduction Advisory Information.

For helicopters, use a boom length and position that prevents the spray from entering the rotor vortices, normally accomplished by a spray boom length that does not exceed the rotor diameter.

Set the boom and make applications at the lowest height that safely permits uniform coverage of the soil and minimizes droplet evaporation. Avoid application if wind conditions are gusty. Local terrain may influence wind patterns; the applicator should be familiar with local conditions and understand how they may impact spray drift. Boom or nozzle shielding can reduce the effects of wind or air currents on drift. Verify that the shields do not interfere with uniform deposition of product prior to application.

Resistance Management Guidelines

Continual use of herbicides with a single mode of action encourages the development of resistant weeds. Esplanade 200 SC is a Group 29 Herbicide that contains the active ingredient indaziflam. Esplanade 200 SC may be used in programs with other preemergence herbicides with different modes of action. No known resistance to Esplanade 200 SC exists, and there are no known instances of cross-resistance between this product and other classes of herbicides, or modes of action. Performance of this product is not affected by the presence of biotypes resistant to glyphosate, triazines, ALS-inhibiting, growth regulant, or other herbicide modes of action. When resistance of a specific weed is confirmed, rotation of Esplanade 200 SC in one season followed by a preemergent herbicide with another mode of action in the subsequent season, for example, will reduce existing populations and minimize further development of resistant weeds. Contact a Bayer Environmental Sciences representative for the latest information on resistance management guidelines for this product.

Spray Drift Management

Spray equipment and weather affect spray drift. Consider all factors when making application decisions. Where states have more stringent regulations, they must be observed. Avoiding spray drift is the responsibility of the applicator. To reduce the potential for drift, the ground application equipment must be set to apply coarse or greater droplets (i.e., ASABE Standard 572.1) with corresponding spray pressure. Use high flow rate nozzles to apply the highest practical spray volume. With most nozzle types, narrower spray angles produce larger droplets. Follow the nozzle manufacturer's directions on pressure, orientation, spray volume, etc., in order to minimize drift and optimize coverage and control.

Sensitive Areas

Sensitive areas are defined as bodies of water (ponds, lakes, rivers, and streams), wetlands, habitats of endangered species and non-labeled agricultural crop areas. Applicators must take all precautions necessary to keep spray drift from reaching sensitive areas.

Only apply this product when the potential for drift to adjacent sensitive areas is minimal (e.g. when wind is blowing away from the sensitive areas). The applicator is responsible for considering all these factors when making decisions. Do not apply under circumstances where possible drift to unprotected persons, food, forage, or other plantings that might be damaged, as crops thereof may be rendered unfit for sale, use, or consumption.

Wind

Avoid making applications when spray particles may be carried by air currents to areas where sensitive crops and plants are growing. Many factors influence spray drift potential including droplet size, equipment type, and local terrain. Drift potential increases if wind is in excess of 10 mph, gusty, or below 2 mph (due to inversion potential). Always make applications when there is some air movement to determine the direction and distance of possible spray drift. The applicator should be familiar with local conditions and how it may influence spray drift.

Temperature Inversion

A surface temperature inversion (i.e., increasing temperature with increasing altitude) greatly increases the potential for drift. Avoid application when conditions are favorable to inversion. Presence of ground fog is a good indicator of a surface temperature inversion.

Controlling Droplet Size

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that still provide sufficient coverage and control. Uniform spray coverage is important to maximize weed control. Applying larger droplets will reduce drift potential, but will not prevent drift if applications are made improperly or under unfavorable environmental conditions such as wind speed, temperature and humidity, and temperature inversion situations.

Spray volume, pressure, and nozzle selection are all important for reducing drift. Select a high flow rate nozzle to apply the highest practical spray volume. High flow rate nozzles produce larger droplets. Use lower spray pressures within the recommended range for the nozzle. If a higher flow rate is needed, increase the nozzle size instead of increasing pressure. Lower spray pressures produce larger droplets. Also, consider using low-drift nozzles.

Set the boom and make applications at the lowest height that safely permits uniform coverage of the soil and minimizes droplet evaporation. Avoid application if wind conditions are gusty. Local terrain may influence wind patterns. The applicator should be familiar with local conditions and understand how they may impact spray drift.

Drift Control Additive

Drift control additive may also be used with most spray equipment to reduce the potential for drift. When using a drift control additive, read and follow all directions on the additive label.

Shielded Sprayers
Shielding the boom or individual nozzles may also reduce the potential for drift. However, it is the responsibility of the applicator to verify that the shield does not interfere with uniform spray coverage.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

Pesticide Storage: Store product in original container only. Store in cool, dry place.

Pesticide Disposal: Waste resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

Container Handling: Refer to the Net Contents section of this product's labeling for the applicable "Nonrefillable Container" designation.

Rigid, Non-refillable containers small enough to shake (i.e., with capacities equal to or less than 5 gallons)
Non-refillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill or by incineration, or if allowed by State and Local authorities, by burning. If burned, stay out of smoke.

Rigid Non-refillable containers that are too large to shake (i.e., with capacities greater than 5 gallons or 50 pounds)
Non-refillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill or by incineration, or if allowed by State and Local authorities, by burning. If burned, stay out of smoke.

Do not transport if container is damaged or leaking. If the container is damaged, leaking or obsolete, or in the event of a major spill, fire, or other emergency, contact BAYER CROPSCIENCE LP at 1-800-334-7577, day or night.

IMPORTANT: READ BEFORE USE

Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product container at once.

By using this product, user or buyer accepts the following Conditions, Disclaimer of Warranties and Limitations of Liability.

CONDITIONS: The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Bayer CropScience LP. All such risks shall be assumed by the user or buyer.

DISCLAIMER OF WARRANTIES: TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BAYER CROPSCIENCE LP MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, THAT EXTEND BEYOND THE STATEMENTS MADE ON THIS LABEL. No agent of Bayer CropScience LP is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BAYER CROPSCIENCE LP DISCLAIMS ANY LIABILITY WHATSOEVER FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

LIMITATIONS OF LIABILITY: TO THE EXTENT CONSISTENT WITH APPLICABLE LAW THE EXCLUSIVE REMEDY OF THE USER OR BUYER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, SHALL NOT EXCEED THE PURCHASE PRICE PAID, OR AT BAYER CROPSCIENCE LP'S ELECTION, THE REPLACEMENT OF PRODUCT.

Finale is a trademark of Bayer

NET CONTENTS:

PRODUCED FOR:

Bayer Environmental Science

A Division of Bayer CropScience LP
PO Box 12014, 2 T.W. Alexander Drive
Research Triangle Park, NC 27709

Esplanade 200 SC (PENDING) 09/19/2017

GROUP 29 HERBICIDE

Esplanade 200 SC

Preemergent Herbicide for the Control of Annual Grasses and Broadleaf Weeds in Non-Residential Non-Crop Areas, Railroad and Rail Yards, Managed Roadsides, Fence Rows, Utilities, Hardscapes, Industrial, Municipal, and Government Sites, and for the Release or Restoration of Desirable Vegetation in Parks and Open Space, Wildlife Management Areas, Recreational Areas, Fire Rehabilitation Areas, Prairies and Fire breaks.

Editorial Note – [Bracketed text] is optional language

ACTIVE INGREDIENT:
Indaziflam (CAS No: 730979-19-8).....19.05%

OTHER INGREDIENTS:..... 80.95%
TOTAL..... 100.00%

EPA Reg. No. 432-1516 **EPA Est.**

Contains 1.67 pounds of indaziflam per gallon

KEEP OUT OF REACH OF CHILDREN

CAUTION

For MEDICAL and TRANSPORTATION Emergencies ONLY Call 24 Hours A Day 1-800-334-7577
For PRODUCT USE Information Call 1-800-331-2867

See [Back] [Side] Panel for First Aid Instructions and [Leaflet][Booklet] for Complete Precautionary Statements and Directions for Use. (Note to reviewer: Location of additional precautionary statements, directions for use will vary between those listed, depending on container type/size.)

FIRST AID	
If swallowed:	• Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give anything to an unconscious person.
If on skin:	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
If inhaled:	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. • Call a poison control center or doctor for further treatment advice.
For MEDICAL Emergencies Call 24 Hours A Day 1-800-334-7577 Have the product container or label with you when calling a poison control center or doctor or going for treatment.	

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Harmful if swallowed, absorbed through the skin or inhaled. Avoid contact with skin, eyes, or clothing. Avoid breathing spray mist. All mixers, loaders, applicators and other handlers must wear long-sleeved shirt, long pants, shoes plus socks, and waterproof gloves. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using toilet. Remove and wash contaminated clothing before reuse.

ENVIRONMENTAL HAZARDS

This product is toxic to fish, aquatic invertebrates, and plants. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean watermark. Do not contaminate water when disposing of rinsate or washwater. This product may impact water through spray drift or runoff. Follow directions for use to avoid spray drift and runoff. A level well maintained vegetative buffer strip between areas to which this product is applied and surface water features including ponds, streams, and springs will reduce the potential of this product entering water from rainfall runoff. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours.

Ground Water Advisory: This pesticide has properties and characteristics associated with chemicals detected in groundwater. This chemical may leach into ground water if used in areas where soils are permeable, particularly where the water table is shallow.

Surface Water Advisory: This pesticide may impact water quality due to runoff of rainwater. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having a high potential for reaching surface water via runoff for several months or more after application.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.
Read the entire label before using this product

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

SHAKE CONTAINER WELL BEFORE USING.

PRODUCT INFORMATION

Esplanade 200 SC is a selective, preemergent, alkylazine herbicide for control of many annual grasses and broadleaf weeds in railroad, roadside, hardscapes, industrial areas, utilities, airports, government and military installations, managed areas (petroleum tank farms, pumping stations, storage areas, rail and utility rights-of-way, utility substations, lumberyards, around farm buildings, non-irrigation ditch banks, fence rows, manufacturing sites, office buildings, educational facilities, parking lots, and under asphalt or concrete as part of site preparation).

Esplanade 200 SC may be used to release or re-establish desirable perennial grasses, forbs, shrubs and trees in non-crop areas such as parks and open space, wildlife management areas, recreational areas, fire rehabilitation areas, prairies and fire breaks.

Esplanade 200 SC controls weeds by reducing the emergence of seedlings through inhibition of cellulose biosynthesis (CB Inhibitor). Necrosis or yellowing may also be observed if the herbicide is applied to herbaceous tissue such as leaves and green stems of susceptible plants. The herbicide needs to be activated prior to weed germination for most effective control. For maximum activity against germinating weeds, Esplanade 200 SC requires rainfall (minimum 0.25 inches) within several weeks after application to activate the herbicide.

Esplanade 200 SC has minimal post emergent activity and generally does not control weeds that have emerged. A post emergent herbicide such as Finale® Herbicide may be mixed with Esplanade 200 SC to control existing weeds. Esplanade 200 SC does not control tubers, rhizomes, and woody vegetation.

Esplanade 200 SC can be applied to terrestrial non-crop sites that contain areas of casual water of a temporary nature as a result of surface water collecting in equipment wheel ruts or in other depressions created by management activities.

Aerial applications of Esplanade 200 SC are allowed to release or re-establish desirable vegetation in non-crop areas such as parks and open space, wildlife management areas, recreational areas, fire rehabilitation areas, prairies, and fire breaks. For all other uses, only ground application is permitted.

USE RESTRICTIONS

- Do not apply directly to water or to soil where standing water is present except as specified on this label.
- Do not apply in or on irrigation ditches/canals including the outer banks.
- Do not contaminate water intended for irrigation and domestic use.
- Do not treat or allow spray drift or runoff to fall into irrigation ditches/canals or other channels that carry water that may be used for irrigation purposes.
- Do not exceed 7 fl oz per acre of Esplanade 200 SC in a single application for all Industrial Vegetation Management applications.
- Do not exceed 10 fl oz per acre of Esplanade 200 SC for all Industrial Vegetation Management applications within a calendar year or in a 12-month period from the previous application.

- Do not apply Esplanade 200 SC to newly seeded turf.
- Do not apply Esplanade 200 SC through an irrigation or chemigation system.
- Aerial applications are only allowed to release or re-establish desirable vegetation in non-crop areas such as parks and open space, wildlife management areas, recreational areas, fire rehabilitation areas, prairies, and fire breaks.
- Do not apply or otherwise permit this product or sprays containing this product to come into contact with any non-target crop or desirable plants.
- Do not make applications when circumstances favor movement from treatment sites.
- Do not apply to frozen or snow covered ground.
- Do not graze or feed forage, hay, or straw from treated areas to livestock.
- Do not use on residential lawns or commercial lawns, golf courses, sod farms, or production and landscape ornamentals.
- Esplanade 200 SC is not for sale, distribution, or use in Nassau County or Suffolk County in New York State.

USE PRECAUTIONS

- Applications made to areas where runoff water flows onto agricultural land may injure crops.
- Applications made during periods of intense rainfall, to soils saturated with water, or soils through which rainfall will not readily penetrate may result in runoff and movement of Esplanade 200 SC.
- Treated soil should be left undisturbed to reduce the potential for Esplanade 200 SC movement by soil erosion, by wind, or water.
- Applications should be made only when there is little or no risk of spray drift or movement of applied product into sensitive areas. Sensitive areas are defined as bodies of water (ponds, lakes, rivers, and streams), habitats of endangered species and non-labeled agricultural crop areas. Refer to the Spray Drift Management section of this label for more details.
- Avoid application to powdery, dry, light or sandy soil when there is little likelihood of rainfall soon after application. Injury to crops or desirable vegetation may result if treated soil is washed, blown, or moved into these areas.

APPLICATION INFORMATION

Apply Esplanade 200 SC with a properly calibrated sprayer according to the manufacturer's directions and check periodically to be certain that the equipment is working properly prior to each use. Uniform application is essential for satisfactory weed control. Avoid overlap. Shut off spray booms while starting, turning, slowing, or stopping to avoid off-target application.

When spraying close or next to ponds, lakes, rivers, and streams be cognizant of keeping the spray solution from reaching the water.

For all applications, follow these guidelines: use spray volumes of 10-100 gallons per acre, spray boom height and spray pressures as low as practical, use coarse droplet producing nozzle tips, use drift control additives and shielded sprayers where practical, and spray when wind speed is low. See the Spray Drift Management section for more details. The use of a hand-held or backpack sprayer is allowed, especially when treating smaller areas. The water volume and use rates are the same on a given area as if treating with a much larger boom sprayer. When using a hand-held or backpack sprayer, do not exceed the use rate restrictions stated on this label.

MIXING INSTRUCTIONS

Ensure that the application equipment has been thoroughly cleaned from previous use before using to apply Esplanade 200 SC. Fill the spray tank with 1/2 of the required volume of water prior to the addition of Esplanade 200 SC. Add the proper amount of Esplanade 200 SC, and then add the rest of the water. Maintain sufficient agitation to ensure an adequate spray mixture during application. If Esplanade 200 SC is to be applied in a tank mixture with other pesticides, add the appropriate amounts of the tank mix partners in the following order: (a) products in water-soluble packaging (WSP), (b) WP, (c) WG or other dry flowables, (d) fertilizers, (e) Esplanade 200 SC, (f) other aqueous suspension products (SC), (g) soluble liquids, (h) emulsifiable concentrates and other organic-solvent based formulations. Continue to fill the tank with water to the desired volume while agitating. **Maintain sufficient agitation during application to ensure a uniform spray mixture.**

Resuspending Esplanade 200 SC in Spray Solution: Like other suspension concentrates (SC), Esplanade 200 SC will settle if left standing without agitation. Re-agitate the spray solution before application.

COMPATIBILITY TESTING WITH OTHER PESTICIDES

A compatibility test must be conducted with any potential tank mix partner with Esplanade 200 SC. Using a clear container, conduct the test as described below:

Fill the container three-quarters full with water.

1. Add the appropriate amount of tank mix partner in the following order: (a) WP (b) dry flowable (c) Esplanade 200 SC (d) aqueous suspensions, (e) soluble liquids, (f) emulsifiable concentrates. Shake or gently stir after each addition to mix thoroughly.
2. After adding all ingredients, let the mixture stand for 15 minutes and look for separation, large flakes, precipitates, gels, and heavy oily film or other signs of incompatibility.
3. If the compatibility test shows signs of incompatibility, do not tank mix the product tested with Esplanade 200 SC.

Vegetation Management Information

Timings, Use Rates, and Maximum Seasonal Rate for Esplanade 200 SC

Apply Esplanade 200 SC prior to weed seed germination. Esplanade 200 SC does not generally control weeds that have emerged. For maximum weed control, the herbicide needs to reach the soil surface and be activated by rainfall or adequate soil moisture. Apply Esplanade 200 SC in the spring for control of spring and summer germinating weeds and apply in the fall for control of winter weeds. The desired rate of Esplanade 200 SC depends on the residual weed activity required and restrictions on the maximum amount of Esplanade 200 SC per season. Esplanade 200 SC may be applied at 3.5-7 fl oz per acre. Do not exceed 7 fl oz of Esplanade 200 SC for a single application. Applications of Esplanade 200 SC must not exceed the maximum label rate (10 fl oz per acre) in a 12-month period after the previous application.

Factors including soil type, rainfall, and the amount of vegetation at the time of treatment may affect weed control. Lower rates of Esplanade 200 SC may be effective for sandy soils, whereas organic soils may require higher rates. If the herbicide is not activated by rainfall prior to weed germination, control may be reduced.

For late fall applications, apply Esplanade 200 SC prior to when the ground freezes.

Tank Mix Combinations

Tank-mix combinations of Esplanade 200 SC plus a non-selective herbicide such as Finale® Herbicide or glyphosate will control existing undesirable vegetation in dormant warm season grasses. Applied as a broadcast spray, Esplanade 200 SC plus a non-selective herbicide such as Finale® Herbicide or glyphosate will provide pre and postemergent control of susceptible species listed on the respective labels of the herbicides in the tank mixture.

Esplanade 200 SC may be tank mixed with the following herbicide active ingredients but not limited to: 2,4-D, aminopyralid, bromacil, dicamba, flumioxazin, fosamine, glufosinate ammonium (Finale® Herbicide), glyphosate, hexazinone, metsulfuron, picloram, simazine, sulfometuron, and triclopyr.

Follow all use restrictions on this label and for all tank mix partners. It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. Note the most restrictive language may come from different labels.

Apply mixtures so that the spray solution covers the soil surface in a uniform manner. If uniform coverage is not achieved, preemergent activity will be inconsistent.

Weeds Controlled or Suppressed by Esplanade 200SC	
Broadleaf Weeds Controlled	
American black nightshade	*Solanum americanum*
Bittercress	*Cardamine* sp.
Buckweed, wild (seedlings only)	*Polygonum convolvulus*
California burclover	*Medicago polymorpha*
Canada thistle, common (seedlings)	*Circium arvense*
Carpetweed	*Mollugo verticillata*
Chickweed, common	*Stellaria media*
Chickweed, Mouse-ear	*Cerastium vulgatum*
Clover, White	*Trifolium repens*
Corn speedwell	*Veronica arvensis*
Cudweed, Linear-leaf/purple	*Gnaphalium purpureum*
Curly dock (seedlings)	*Rumex crispus*
Cutleaf evening primrose	*Oenothera laciniata*
Dandelion, cat's ear	*Hypochoeris radicata*
Dandelion, common (seedlings)	*Taraxacum officinale*
Doveweed	*Murdannia nudiflora*
Eclipta	*Eclipta alba*
Evening primrose, common	*Oenothera biennis*

Evening primrose, cutleaf	*Oenothera laciniata*
Filaree, redstem	*Erodium cicutarium*
Fleabane, blackleaved	*Conza bonariensis*
Florida pusley	*Richardia scabra*
Gromwell, Yellow	*Amsinckia calycina*
Groundsel, common	*Senecio vulgaris*
Hairy fleabane	*Erigeron bonariensis*
Hairy nightshade	*Solanum sarrachoides*
Henbit	*Lamium amplexicaule*
Horseweed/Marestail	*Erigeron canadensis*
Kochia	*Kochia scoparia*
Lambsquarters, common	*Chenopodium album*
Lawn burweed	*Soliva pterosperma*
Little mallow	*Malva parviflora*
Long-stalk phyllanthus	*Phyllanthus tenellus*
Panicle willowweed	*Epilobium paniculatum*
Plantain, Buckhorn	*Plantago lanceolata*
Plantain, Paleseed	*Plantago virginica*
Prostrate knotweed	*Polygonum aviculare*
Prostrate pigweed	*Amaranthus blitoides*
Prostrate spurge	*Euphorbia humifusa*
Puncturevine	*Tribulus terrestirs*
Purslane, common	*Portulaca oleracea*
Ragweed, common	*Ambrosia artimisiifolia*
Red tasselflower	*Emilia sonchifolia*
Redmaids	*Calandrinia caulescens*
Redroot pigweed	*Amaranthus retroflexus*
Redstem fleabane/Storksbill	*Erodium cicutarium*
Russian Thistle	*Salsola tragus*
Shepherd's-purse	*Capsella bursa-pastoris*
Sowthistle, annual	*Sonchus olerachus*
Spotted catsear	*Hypochoeris radica*
Swinecress	*Coronopus didymus*
Tropic ageratum	*Ageratum conycoides*
Velvetleaf	*Abutilon theophrasti*
Wild buckwheat (seedlings)	*Polygonum convolvulus*
Wild mustard	*Sinapis arvensis*
Yellow starthistle	*Centaurea solstitialis*

Grasses and Sedges Controlled	
Annual bluegrass	*Poa annua*
Annual bromegrass	*Bromus* spp.
Barnyardgrass, common	*Echinochloa crus-galli*
Cheatgrass	*Bromus secalinus*
Crabgrass	*Digitaria* species
Crabgrass, Henry	*Digitaria adscendens*
Crabgrass, Large/Hairy	*Digitaria sanguinalis*
Crabgrass, Smooth	*Digitaria ischaemum*
Downy brome	*Bromus tectorum*
False chamomile	*Matricaria maritime*
Foxtail brome	*Bromus rubens*
Foxtail, Giant	*Setaria faberi*
Foxtail, Green	*Setaria viridis*
Foxtail, Yellow	*Pennisetum glaucum*
Goosegrass	*Eleusine indica*
Guineagrass	*Panicum maximum*
Medusahead	*Taeniatherum caput-medusae*
Mouse barley	*Hordeum murinum*
Rice flatsedge	*Cyperus iria*
Rye, Feral	*Secale cereale*
Ryegrass, Italian	*Lolium multiflorum*
Ryegrass, Perennial	*Lolium perenne*
Sandbur	*Cenchrus longispinus*
Sedge, annual	*Cyperus spp.*
Sprangletop	*Leptochloa* spp.
Tufted lovegrass	*Eragrostis pectinacea*
Weeds Suppressed	
Black medic	*Medicago lupulina*
Black mustard	*Brassica nigra*
False chamomile	*Matricaria maritime*
London rocket	*Sisymbrium irio*
Nutsedge, purple	*Cyperus rotunda*
Nutsedge, yellow	*Cyperus esculentus*
Prickly lettuce	*Lactuca serriola*
Sesbania, hemp	*Sesbania exaltata*
Sida, prickly/teaweed	*Sida spinosa*
Southern brassbuttons	*Cotula australis*
Sunflower, common	*Helianthus* spp.
Vetch, purple	*Vicia benghalensis*
Wild carrot	*Daucus carota*
Woodsorrell, yellow	*Oxalis stricta*
Woodsorrel/Oxalis	*Oxalis* species

Use Sites for Esplanade 200 SC	**Rate Range (fl oz/A)**	**Maximum Single Use Rate (fl oz/A)**	**Maximum Total Yearly Rate (fl oz/A)**
Rail and Rail Yards	3.5*-7	7	10
Managed Roadsides	3.5-7	7	10
Warm Season Turf Release	3.5-5	5	10
Restoration or release of desirable vegetation	3.5**-7	7	10
All other use sites listed	3.5-7	7	10

*In Rail and Rail yard use sites, the 3.5 oz rate of Esplanade 200 SC should only be applied under low weed pressure in combination with another approved herbicide. This rate is not intended for stand-alone treatments.

**The 3.5 fl oz rate of Esplanade 200 SC should only be applied under low weed pressure when less preemergence residual control is desired.

Bareground Applications for Non-Residential Non-Crop Sites

Bareground is desired at many non-crop sites for reducing fire hazards, maintaining appropriate lines-of-site, and aesthetic considerations. Examples of sites include but are not limited to guardrails and some median strips near highways, hardscapes, parks, airports, utilities, government and military installations, around farm buildings, manufacturing sites, office buildings, educational facilities, parking lots, and managed areas. Esplanade 200 SC may be used alone for residual weed control or in tank mixture. Tank mixtures with post emergent herbicides help to control existing weeds. Observe use restrictions for all herbicides if a tank mixture is applied. Use-rates for bareground applications depend on the duration of weed control desired and the weed species listed on this label. Apply Esplanade 200 SC at 5-7 fl oz per acre. A repeat application can be made but not to exceed a total amount of 10 fl oz per acre per year.

Restriction: Applications to hardscapes (e.g. patios, paved parking lots, and walkways) may be made by spot application only.

Railroads and Rail Yards

Esplanade 200 SC may be used for preemergent residual control of certain weeds near railroad tracks, ballasts, and rail yards. Follow application instructions under **Bareground Applications** where bareground is the desired result. In situations where warm season turfgrass coverage is desired, such as at railroad crossings, follow use directions under the **Warm Season Turf Release** section of this label. Apply Esplanade 200 SC at 5-7 fl oz per acre. A repeat application can be made but not to exceed a total amount of 10 fl oz per acre per year.

Warm Season Turf Release

Esplanade 200 SC may be used to promote the growth of warm season grasses in areas where low maintenance vegetation or erosion control is desired. Established bermudagrass (*Cynodon dactylon*), centipedegrass (*Eremochloa ophiuroides*), bahiagrass (*Paspalum notatum*), buffalograss (*Buchloe dactyloides*), and Zoysiagrass *(Zoysia spp.*) are tolerant to Esplanade 200 SC at rates up to 5 fl oz per acre. Application of Esplanade 200 SC in the spring or fall to these grasses will control labeled weeds and allow low maintenance turf to develop. A repeat application can be made but not to exceed a total amount of 10 fl oz per acre per year. Cool season grasses such as Kentucky bluegrass (*Poa pratensis*), perennial ryegrass (*Lolium perenne*), and fescues (*Festuca sp*) are not tolerant to Esplanade 200 SC. Use Esplanade 200 SC on these grasses only when removal of these grasses is desired.

Esplanade 200 SC can inhibit the emergence of seed and damage newly emerged seedlings. Seeding into turf treated with Esplanade 200 SC should be delayed until at least **8 months** after application. Applications to newly seeded turf made sooner than **8 months** after emergence may significantly reduce stand establishment and turf vigor.

Release or Restoration of Desirable Vegetation

Esplanade 200 SC may be used to release or re-establish desirable perennial grasses, forbs, shrubs and trees in non-crop areas such as parks and open space, wildlife management areas, recreational areas, fire rehabilitation areas, prairies and fire breaks.

Application Timings and Rates

Apply Esplanade 200 SC at 3.5 to 7 fl oz per acre. The 3.5 fl oz rate of Esplanade 200 SC should only be applied under low weed pressure when less preemergence residual control is desired. For the best residual control, apply Esplanade 200 SC at 5 to 7 fl oz per acre.

Esplanade 200 SC may be applied by ground or aerial equipment (helicopter or fixed wing).

Not for aerial use in the State of New York.

Timing of application is determined by precipitation expectation and weed targets. Apply during periods when sufficient precipitation to activate the herbicide is expected prior to target weed germination, but avoid application if heavy rain is expected which can move treated soil into areas with crops or desirable vegetation.

Esplanade 200 SC has minimal post emergent activity and generally does not control weeds that have emerged. A labeled post emergent herbicide may be mixed with Esplanade 200 SC to control existing weeds. Refer to "Tank Mix Combinations" section for specific tank mix instructions.

Low rainfall areas of the West: Apply in the fall, winter, or spring. Esplanade 200 SC will not control winter annuals that have emerged at the time of application or that emerge prior to activating rainfall. A post emergence tank mix partner is needed to control winter annuals that have emerged at the time of application. Susceptible winter annual weeds that have emerged and escape the post emergence herbicide may be controlled preemergence the following season depending on the rate of Esplanade 200 SC used. Esplanade 200 SC at the highest labeled rate may provide several years of residual preemergence control of winter annual grasses such as downy brome, cheatgrass, feral ryegrass, and medusahead.

High rainfall areas of the East: Apply in the fall to control winter annual weeds or apply in the spring to control spring and summer germinating weeds. A tank mix partner is needed to control weeds that have emerged at the time of application.

Established perennial grasses that are tolerant to Esplanade 200 SC:

The following tables list species that have demonstrated tolerance to Esplanade 200 SC. When treating areas with desirable species not listed in the tables, treat a small area to confirm tolerance prior to large scale use.

Cool Season Grasses	Warm Season Grasses
Crested Wheatgrass (*Agropyon cristatum*)	Blue Grama (*Bouteloua gracilis*)
Green Needlegrass (*Nassella viridula*)	Sand Dropseed (*Sporobolus cryptandrus*)
Intermediate Wheatgrass (*Thinopyrum intermedium*)	
Needle-and-thread (*Hesperostipa comata*)	
Prairie Junegrass (*Koeleria macrantha*)	
Streambank Wheatgrass (*Elymus lanceolatus*)	
Western Wheatgrass (*Pascopyrum smithii*)	

Established forbs and shrubs that are tolerant to Esplanade 200 SC:

Forbs and Shrubs
Broom groundsel (*Senecio spartioides*)
Fringed Sage (*Artemisia frigida*)
Lemon Scurfpea (*Psoralidium lanceolatum*)
Louisiana Sage (*Artemisia ludoviciana*)
Prickly Pear (*Opuntia*)
Porter's Aster (*Symphyotrichum porteri*)
Scarlet globemallow (*Sphaeralcea coccinea*)
Short's milkvetch (*Astragalus shortianus*)
Sulphur Flower (*Eriogonum umbellatum*)
Western Ragweed (*Ambrosia psilostachya*)
Wild Tarragon (*Artemisia dracunculus*)

Use Restrictions:

Do not apply by air in the State of New York.
Do not apply to frozen or snow covered ground.
Do not graze or feed forage, hay, or straw from treated areas to livestock.

Precautions:

Avoid application to powdery, dry, light or sandy soil when there is little likelihood of rainfall soon after application. Injury to crops or desirable vegetation may result if treated soil is washed, blown, or moved into these areas.

If planning to plant desirable species in the treated area, avoid planting for at least eight months after application. A field bioassay must then be completed before planting. To conduct a field bioassay, grow to maturity test strips of the species you plan to plant. The test strips should cross the entire area including knolls and low areas. Response to the field bioassay will indicate whether or not to plant the species grown in the test strips. If no injury (such as poor germination, stunting, chlorosis, malformation, or necrosis) the species grown in the test strips may be planted.

Aerial Use Directions (Release or Restoration of Desirable Vegetation)

For aerial application (helicopter and fixed wing aircraft), use 5-30 gallons of spray volume per acre.

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops.
1. The distance of the outer most nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
2. Nozzles must always point backward, parallel with the air stream and never be pointed downwards more than 45 degrees.
3. All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers.

Where states have more stringent regulations, they must be observed. The applicator should be familiar with and take into account the information covered in the Aerial Drift Reduction Advisory Information.

For helicopters, use a boom length and position that prevents the spray from entering the rotor vortices, normally accomplished by a spray boom length that does not exceed the rotor diameter.

Set the boom and make applications at the lowest height that safely permits uniform coverage of the soil and minimizes droplet evaporation. Avoid application if wind conditions are gusty. Local terrain may influence wind patterns; the applicator should be familiar with local conditions and understand how they may impact spray drift. Boom or nozzle shielding can reduce the effects of wind or air currents on drift. Verify that the shields do not interfere with uniform deposition of product prior to application.

Resistance Management Guidelines

Continual use of herbicides with a single mode of action encourages the development of resistant weeds. Esplanade 200 SC is a Group 29 Herbicide that contains the active ingredient indaziflam. Esplanade 200 SC may be used in programs with other preemergence herbicides with different modes of action. No known resistance to Esplanade 200 SC exists, and there are no known instances of cross-resistance between this product and other classes of herbicides, or modes of action. Performance of this product is not affected by the presence of biotypes resistant to glyphosate, triazines, ALS-inhibiting, growth regulant, or other herbicide modes of action. When resistance of a specific weed is confirmed, rotation of Esplanade 200 SC in one season followed by a preemergent herbicide with another mode of action in the subsequent season, for example, will reduce existing populations and minimize further development of resistant weeds. Contact a Bayer Environmental Sciences representative for the latest information on resistance management guidelines for this product.

Spray Drift Management

Spray equipment and weather affect spray drift. Consider all factors when making application decisions. Where states have more stringent regulations, they must be observed. Avoiding spray drift is the responsibility of the applicator. To reduce the potential for drift, the ground application equipment must be set to apply coarse or greater droplets (i.e., ASABE Standard 572.1) with corresponding spray pressure. Use high flow rate nozzles to apply the highest practical spray volume. With most nozzle types, narrower spray angles produce larger droplets. Follow the nozzle manufacturer's directions on pressure, orientation, spray volume, etc., in order to minimize drift and optimize coverage and control.

Sensitive Areas

Sensitive areas are defined as bodies of water (ponds, lakes, rivers, and streams), wetlands, habitats of endangered species and non-labeled agricultural crop areas. Applicators must take all precautions necessary to keep spray drift from reaching sensitive areas.

Only apply this product when the potential for drift to adjacent sensitive areas is minimal (e.g. when wind is blowing away from the sensitive areas). The applicator is responsible for considering all these factors when making decisions. Do not apply under circumstances where possible drift to unprotected persons, food, forage, or other plantings that might be damaged, as crops thereof may be rendered unfit for sale, use, or consumption.

Wind

Avoid making applications when spray particles may be carried by air currents to areas where sensitive crops and plants are growing. Many factors influence spray drift potential including droplet size, equipment type, and local terrain. Drift potential increases if wind is in excess of 10 mph, gusty, or below 2 mph (due to inversion potential). Always make applications when there is some air movement to determine the direction and distance of possible spray drift. The applicator should be familiar with local conditions and how it may influence spray drift.

Temperature Inversion

A surface temperature inversion (i.e., increasing temperature with increasing altitude) greatly increases the potential for drift. Avoid application when conditions are favorable to inversion. Presence of ground fog is a good indicator of a surface temperature inversion.

Controlling Droplet Size

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that still provide sufficient coverage and control. Uniform spray coverage is important to maximize weed control. Applying larger droplets will reduce drift potential, but will not prevent drift if applications are made improperly or under unfavorable environmental conditions such as wind speed, temperature and humidity, and temperature inversion situations.

Spray volume, pressure, and nozzle selection are all important for reducing drift. Select a high flow rate nozzle to apply the highest practical spray volume. High flow rate nozzles produce larger droplets. Use lower spray pressures within the recommended range for the nozzle. If a higher flow rate is needed, increase the nozzle size instead of increasing pressure. Lower spray pressures produce larger droplets. Also, consider using low-drift nozzles.

Set the boom and make applications at the lowest height that safely permits uniform coverage of the soil and minimizes droplet evaporation. Avoid application if wind conditions are gusty. Local terrain may influence wind patterns. The applicator should be familiar with local conditions and understand how they may impact spray drift.

Drift Control Additive

Drift control additive may also be used with most spray equipment to reduce the potential for drift. When using a drift control additive, read and follow all directions on the additive label.

Shielded Sprayers

Shielding the boom or individual nozzles may also reduce the potential for drift. However, it is the responsibility of the applicator to verify that the shield does not interfere with uniform spray coverage.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

Pesticide Storage: Store product in original container only. Store in cool, dry place.

Pesticide Disposal: Waste resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

Container Handling: Refer to the Net Contents section of this product's labeling for the applicable "Nonrefillable Container" designation.

Rigid, Non-refillable containers small enough to shake (i.e., with capacities equal to or less than 5 gallons)
Non-refillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill or by incineration, or if allowed by State and Local authorities, by burning. If burned, stay out of smoke.

Rigid Non-refillable containers that are too large to shake (i.e., with capacities greater than 5 gallons or 50 pounds)
Non-refillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill or by incineration, or if allowed by State and Local authorities, by burning. If burned, stay out of smoke.

Do not transport if container is damaged or leaking. If the container is damaged, leaking or obsolete, or in the event of a major spill, fire, or other emergency, contact BAYER CROPSCIENCE LP at 1-800-334-7577, day or night.

IMPORTANT: READ BEFORE USE

Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product container at once.

By using this product, user or buyer accepts the following Conditions, Disclaimer of Warranties and Limitations of Liability.

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Bayer Environmental Science

A Division of Bayer CropScience LP
PO Box 12014, 2 T.W. Alexander Drive
Research Triangle Park, NC 27709

Esplanade 200 SC (PENDING) 09/19/2017

Message

From: Meadows, Sarah [Meadows.Sarah@epa.gov]
Sent: 6/25/2019 5:52:48 PM
To: ORR, THOMAS B [AG/1005] [thomas.orr@bayer.com]
CC: Baris, Reuben [Baris.Reuben@epa.gov]; Kenny, Daniel [Kenny.Dan@epa.gov]
Subject: RE: Dicamba Tolerant Corn

Hi, Tom. We'll definitely need to renegotiate this date. More time is needed before we can develop an official position on this new use of dicamba. As you know, there are a litany of scientific and legal issues that we're dealing with which have been resource-intensive.

I suggest renegotiating for a year. If you are amenable to this, please send me an email requesting the new date of July 1, 2020 for EPA registration number 524-617, decision number 538753, and petition number 8F8659, decision number 538754.

Thanks,

Sarah
Sarah True Meadows, PhD
US Environmental Protection Agency
Office of Pesticide Programs
Registration Division – Herbicide Branch
(703) 347-0505
meadows.sarah@epa.gov

From: Schmid, Emily
Sent: Monday, June 24, 2019 1:24 PM
To: ORR, THOMAS B [AG/1005] <thomas.orr@bayer.com>
Cc: Baris, Reuben <Baris.Reuben@epa.gov>; Kenny, Daniel <Kenny.Dan@epa.gov>; MARVIN, THOMAS [AG/1920] <thomas.marvin@monsanto.com>; BHAKTA, TINA [AG/1005] <tina.bhakta@monsanto.com>; Meadows, Sarah <Meadows.Sarah@epa.gov>
Subject: RE: Dicamba Tolerant Corn

Hi Tom,

Thanks for contacting me about this. The PRIA date will need to be renegotiated. This action is now assigned to Sarah Meadows. She is in the process of confirming how long will be needed to complete the review and is going to reach out to you soon to get this renegotiated.

Best regards,
Emily

From: ORR, THOMAS B [AG/1005] <thomas.orr@bayer.com>
Sent: Monday, June 24, 2019 12:55 PM
To: Schmid, Emily <Schmid.Emily@epa.gov>
Cc: Baris, Reuben <Baris.Reuben@epa.gov>; Kenny, Daniel <Kenny.Dan@epa.gov>; MARVIN, THOMAS [AG/1920] <thomas.marvin@monsanto.com>; BHAKTA, TINA [AG/1005] <tina.bhakta@monsanto.com>
Subject: RE: Dicamba Tolerant Corn

Hi Emily. I am transitioning to the dicamba tolerant corn project from Simone and wanted to follow-up with you regarding this action. My understanding is that the PRIA date for the new proposed dicamba use in corn is July 1, 2019.

Monsanto Company, as subsidiary of Bayer AG, previously received an application deficiency letter regarding this action from EPA on February 6, 2019 in which a field volatility study conducted using XtendiMax on dicamba-tolerant corn was requested. Monsanto responded to the February 6, 2019 letter with a data waiver request for additional volatility studies. In this response, Monsanto summarized the vast amount of field volatility data that were previously submitted to EPA and highlighted the direct relevance of those data to the proposed dicamba use on dicamba-tolerant corn to support the study waiver request.

Do you anticipate that EPA will be able to finish the review of the data waiver request and the new use application prior to the PRIA date of July 1, 2019 or does the Agency wish to renegotiate the PRIA date?

Best regards,

Tom Orr
Global Regulatory Affairs Manager

///////////////////

Bayer Crop Science
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Cell: +1 314-422-1748
E-mail: thomas.orr@bayer.com
Web: http://www.bayer.com

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From: Schmid, Emily
Sent: Tuesday, September 04, 2018 9:23 AM
To: SEIFERT-HIGGINS, SIMONE [AG/1005] <simone.seifert-higgins@bayer.com>; MARVIN, THOMAS [AG/1920] <thomas.marvin@monsanto.com>; BHAKTA, TINA [AG/1005] <tina.bhakta@monsanto.com>
Cc: Baris, Reuben <Baris.Reuben@epa.gov>; Kenny, Daniel <Kenny.Dan@epa.gov>
Subject: RE: Dicamba Tolerant Corn

Simone,

I'm not sure about what happened with this action before it got to me but the PRIA date is definitely July 1, 2019. We will do everything we can to make the PRIA date but May 15, 2019 won't be possible.

Best regards,
Emily

From: SEIFERT-HIGGINS, SIMONE [AG/1005] [mailto:simone.seifert-higgins@bayer.com]
Sent: Tuesday, September 04, 2018 10:15 AM
To: Schmid, Emily <Schmid.Emily@epa.gov>; SEIFERT-HIGGINS, SIMONE [AG/1005] <simone.seifert-higgins@bayer.com>; MARVIN, THOMAS [AG/1920] <thomas.marvin@monsanto.com>; BHAKTA, TINA [AG/1005] <tina.bhakta@monsanto.com>

Cc: Baris, Reuben <Baris.Reuben@epa.gov>; Kenny, Daniel <Kenny.Dan@epa.gov>
Subject: RE: Dicamba Tolerant Corn

Emily,
Thank you for your follow-up!

Apologies for the back-and-forth but I am surprised to learn about a July 1, 2019 PRIA date for this new corn use. It is my understanding that this action was coded R170 during a manager's meeting on March 1 which was held prior to issuance/receipt of the milestone #2 note (attached).

Are you indicating that it is expected to be difficult to meet the May 15, 2019 deadline? Could you please confirm the PRIA due date for this action.

Regards,
Simone

From: Schmid, Emily [mailto:Schmid.Emily@epa.gov]
Sent: Tuesday, September 04, 2018 7:01 AM
To: SEIFERT-HIGGINS, SIMONE [AG/1005] <simone.seifert-higgins@bayer.com>
Cc: Baris, Reuben <Baris.Reuben@epa.gov>; Kenny, Daniel <Kenny.Dan@epa.gov>
Subject: RE: Dicamba Tolerant Corn

Simone,

Thank you for making me aware of the meeting. However, the PRIA date for the corn use is 7/1/19. With our current resource constraints it has been difficult to complete new uses within the PRIA timeframe so I don't see how it would be possible to complete our review 1-2 months early. I assume the milestone that gave you the date in May was before it was recoded since the decision time for an R298 is 13 months and for R170 it is 15 months.

Let me know if you have any other questions.

Best regards,
Emily

From: SEIFERT-HIGGINS, SIMONE [AG/1005] [mailto:simone.seifert-higgins@bayer.com]
Sent: Monday, August 27, 2018 9:46 AM
To: Schmid, Emily <Schmid.Emily@epa.gov>; SEIFERT-HIGGINS, SIMONE [AG/1005] <simone.seifert-higgins@bayer.com>
Subject: RE: Dicamba Tolerant Corn

Emily,
Thank you for your explanation! As indicated I did not intend to reassign PRIA but wanted to better understand timelines for review and decision-making. Based on the systems-generated milestone #2, PRIA timeline for the proposed dicamba use in dicamba-tolerant (DT) corn is set to be due on May 15, 2019.

I do want to share with you that Monsanto, now Bayer, submitted dicamba data for evaluation at the 2019 Extraordinary Joint FAO/WHO Meeting on Pesticide Residues (JMPR). The Extra JMPR session will be held May 7-17, 2019. Bayer is requesting to amend the existing Codex definition of residue for dicamba to include DCSA (dichlorosalicylic acid), which is the major metabolite in DT crops. Dicamba use over-the-top in/on DT cotton and soy is approved; however, the new use pattern (GAP) for DT corn is pending. While we have obtained permission from the Secretariat to include corn data in our submission, it is desirable to have the corn GAP approved at the time of the JMPR meeting. I do recognize the extremely tight timeline and am aware of the current resource constrains at the EPA; therefore, please don't hesitate to reach out to me if there is any assistance I can provide to facilitate your review.

Looking forward to working with you!

Best regards,

Simone Seifert-Higgins, Ph.D.
Regulatory Affairs Manager

///////////////

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From: Schmid, Emily [mailto:Schmid.Emily@epa.gov]
Sent: Thursday, August 23, 2018 10:26 AM
To: SEIFERT-HIGGINS, SIMONE [AG/1005] <simone.seifert-higgins@bayer.com>
Subject: RE: Dicamba Tolerant Corn

Hi Simone,

I think all new GMO uses are given PRIA codes as new food uses since all of the work that goes into reviewing a new use must also be done for a GMO so it is basically a new use. I think if PRIA 4 is ever passed, there will be a more clear code. In the CFR, the tolerance is not specified as genetically modified, it is just listed as corn, soybean, etc. So the new tolerance will be set for a crop that already has a tolerance, therefore it will be amended. I hope this answers your question. If not, you might want to contact Reuben since he works with coding much more than I do.

Best regards,
Emily

From: SEIFERT-HIGGINS, SIMONE [AG/1005] [mailto:simone.seifert-higgins@bayer.com]
Sent: Wednesday, August 22, 2018 4:04 PM
To: Schmid, Emily <Schmid.Emily@epa.gov>
Subject: RE: Dicamba Tolerant Corn

Hi Emily,
I would like to offer some additional explanations to my voice mail related to the HT3 corn submission and your review. While I certainly agree with your assessment to refer to this action as an amendment of an existing tolerance I would like to understand your thoughts that led to your conclusion. Reason for my question it that I originally submitted this petition under PRIA R298 (amendment); however, after some back-and-forth with the PRIA team this action was re-coded as R170 (new use/establishing new tolerance). I have attached respective email correspondence with Mick Yanchulis for your reference.

I would appreciate if you could give me a ring at your convenience at **Ex. 6 Personal Privacy (PP)**

Regards,
Simone

From: Schmid, Emily [mailto:Schmid.Emily@epa.gov]
Sent: Wednesday, July 11, 2018 3:25 PM
To: SEIFERT-HIGGINS, SIMONE [AG/1005] <simone.seifert-higgins@monsanto.com>
Cc: MARVIN, THOMAS [AG/1920] <thomas.marvin@monsanto.com>
Subject: Dicamba Tolerant Corn

Good afternoon,

I am the reviewer assigned to the dicamba tolerant corn use you submitted. Could you revise the notice of filing to reflect that this is amending a tolerance instead of establishing a tolerance? Also, please specify the corn... I assume it is field corn? I have attached a cleaned up version that I wanted to let you look at before I sent it in to be published anyway so if you could make those changes to the attached version and make sure you are okay with my edits, that would be great.

Let me know if you have any questions.

Best regards,

Emily Schmid
Biologist
U.S. Environmental Protection Agency
Registration Division
Herbicide Branch

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Message

From: Schmid, Emily [Schmid.Emily@epa.gov]
Sent: 6/24/2019 5:24:14 PM
To: ORR, THOMAS B [AG/1005] [thomas.orr@bayer.com]
CC: Baris, Reuben [Baris.Reuben@epa.gov]; Kenny, Daniel [Kenny.Dan@epa.gov]; MARVIN, THOMAS [AG/1920] [thomas.marvin@monsanto.com]; BHAKTA, TINA [AG/1005] [tina.bhakta@monsanto.com]; Meadows, Sarah [Meadows.Sarah@epa.gov]
Subject: RE: Dicamba Tolerant Corn

Hi Tom,

Thanks for contacting me about this. The PRIA date will need to be renegotiated. This action is now assigned to Sarah Meadows. She is in the process of confirming how long will be needed to complete the review and is going to reach out to you soon to get this renegotiated.

Best regards,
Emily

From: ORR, THOMAS B [AG/1005] <thomas.orr@bayer.com>
Sent: Monday, June 24, 2019 12:55 PM
To: Schmid, Emily <Schmid.Emily@epa.gov>
Cc: Baris, Reuben <Baris.Reuben@epa.gov>; Kenny, Daniel <Kenny.Dan@epa.gov>; MARVIN, THOMAS [AG/1920] <thomas.marvin@monsanto.com>; BHAKTA, TINA [AG/1005] <tina.bhakta@monsanto.com>
Subject: RE: Dicamba Tolerant Corn

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Best regards,

Tom Orr
Global Regulatory Affairs Manager

////////////////////

Bayer Crop Science
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Cell: +1 314-422-1748
E-mail: thomas.orr@bayer.com

Web: http://www.bayer.com

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Sent: Tuesday, September 04, 2018 9:23 AM
To: SEIFERT-HIGGINS, SIMONE [AG/1005] <simone.seifert-higgins@bayer.com>; MARVIN, THOMAS [AG/1920] <thomas.marvin@monsanto.com>; BHAKTA, TINA [AG/1005] <tina.bhakta@monsanto.com>
Cc: Baris, Reuben <Baris.Reuben@epa.gov>; Kenny, Daniel <Kenny.Dan@epa.gov>
Subject: RE: Dicamba Tolerant Corn

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Best regards,
Emily

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Sent: Tuesday, September 04, 2018 10:15 AM
To: Schmid, Emily <Schmid.Emily@epa.gov>; SEIFERT-HIGGINS, SIMONE [AG/1005] <simone.seifert-higgins@bayer.com>; MARVIN, THOMAS [AG/1920] <thomas.marvin@monsanto.com>; BHAKTA, TINA [AG/1005] <tina.bhakta@monsanto.com>
Cc: Baris, Reuben <Baris.Reuben@epa.gov>; Kenny, Daniel <Kenny.Dan@epa.gov>
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Are you indicating that it is expected to be difficult to meet the May 15, 2019 deadline? Could you please confirm the PRIA due date for this action.

Regards,
Simone

From: Schmid, Emily [mailto:Schmid.Emily@epa.gov]
Sent: Tuesday, September 04, 2018 7:01 AM
To: SEIFERT-HIGGINS, SIMONE [AG/1005] <simone.seifert-higgins@bayer.com>
Cc: Baris, Reuben <Baris.Reuben@epa.gov>; Kenny, Daniel <Kenny.Dan@epa.gov>
Subject: RE: Dicamba Tolerant Corn

Simone,

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Let me know if you have any other questions.

Best regards,
Emily

From: SEIFERT-HIGGINS, SIMONE [AG/1005] [mailto:simone.seifert-higgins@bayer.com]
Sent: Monday, August 27, 2018 9:46 AM
To: Schmid, Emily <Schmid.Emily@epa.gov>; SEIFERT-HIGGINS, SIMONE [AG/1005] <simone.seifert-higgins@bayer.com>
Subject: RE: Dicamba Tolerant Corn

Emily,
Thank you for your explanation! As indicated I did not intend to reassign PRIA but wanted to better understand timelines for review and decision-making. Based on the systems-generated milestone #2, PRIA timeline for the proposed dicamba use in dicamba-tolerant (DT) corn is set to be due on May 15, 2019.

I do want to share with you that Monsanto, now Bayer, submitted dicamba data for evaluation at the 2019 Extraordinary Joint FAO/WHO Meeting on Pesticide Residues (JMPR). The Extra JMPR session will be held May 7-17, 2019. Bayer is requesting to amend the existing Codex definition of residue for dicamba to include DCSA (dichlorosalicylic acid), which is the major metabolite in DT crops. Dicamba use over-the-top in/on DT cotton and soy is approved; however, the new use pattern (GAP) for DT corn is pending. While we have obtained permission from the Secretariat to include corn data in our submission, it is desirable to have the corn GAP approved at the time of the JMPR meeting. I do recognize the extremely tight timeline and am aware of the current resource constrains at the EPA; therefore, please don't hesitate to reach out to me if there is any assistance I can provide to facilitate your review.

Looking forward to working with you!

Best regards,

Simone Seifert-Higgins, Ph.D.
Regulatory Affairs Manager

Bayer U.S. – Crop Science
700 Chesterfield Parkway West
Chesterfield, MO 63017

Office Tel:+1 (636) 737-9571
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/// Follow Bayer on:
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Linkedin /// YouTube

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Sent: Thursday, August 23, 2018 10:26 AM
To: SEIFERT-HIGGINS, SIMONE [AG/1005] <simone.seifert-higgins@bayer.com>
Subject: RE: Dicamba Tolerant Corn

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Emily

From: SEIFERT-HIGGINS, SIMONE [AG/1005] [mailto:simone.seifert-higgins@bayer.com]
Sent: Wednesday, August 22, 2018 4:04 PM
To: Schmid, Emily <Schmid.Emily@epa.gov>
Subject: RE: Dicamba Tolerant Corn

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I would appreciate if you could give me a ring at your convenience at **Ex. 6 Personal Privacy (PP)**

Regards,
Simone

From: Schmid, Emily [mailto:Schmid.Emily@epa.gov]
Sent: Wednesday, July 11, 2018 3:25 PM
To: SEIFERT-HIGGINS, SIMONE [AG/1005] <simone.seifert-higgins@monsanto.com>
Cc: MARVIN, THOMAS [AG/1920] <thomas.marvin@monsanto.com>
Subject: Dicamba Tolerant Corn

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Let me know if you have any questions.

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Emily Schmid
Biologist
U.S. Environmental Protection Agency
Registration Division
Herbicide Branch

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Sent: 6/24/2019 4:55:16 PM
To: Schmid, Emily [Schmid.Emily@epa.gov]
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Best regards,

Emily Schmid
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U.S. Environmental Protection Agency
Registration Division
Herbicide Branch

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Inadvertent disclosure of this message does not constitute a waiver of any privilege. If you receive this message in error, please do not directly or indirectly use, print, copy, forward, or disclose any part of this message. Please also delete this e-mail and all copies and notify the sender. Thank you.

Message

From: SEIFERT-HIGGINS, SIMONE [AG/1005] [simone.seifert-higgins@monsanto.com]
Sent: 3/19/2018 10:44:04 PM
To: Baris, Reuben [Baris.Reuben@epa.gov]
Subject: RE: guidance

Reuben,
Thank you for providing the guidance document!

A quick follow-up note to the submission for XtendiMax URL addition of 21 tank mix products … I do want to point out that several of these products had been enabled for "conventional tank mix uses" in the past, however, when XtendiMax became a Restricted Use Pesticide the decision was made to subject these "conventional tank mixes" to the terms and conditions of registration dated 11/9/2016. As an example, a grower who has been using Gramoxone in his pasture or 2,4-D in corn tank mixed with dicamba will now need to consult the XtendiMax URL first to identify if such tank mix is allowed. I suspect that this may be a reason that the increased number of requests for tank mix partners in recent months.

When searching for the original email requesting URL addition of Cotoran I was informed that Tom Marvin has already provided the email. Please let me know if there is any additional information I can provide.

It was a pleasure speaking with you!

Regards,
Simone

From: Baris, Reuben [mailto:Baris.Reuben@epa.gov]
Sent: Wednesday, March 14, 2018 10:58 AM
To: SEIFERT-HIGGINS, SIMONE [AG/1005] <simone.seifert-higgins@monsanto.com>
Subject: guidance

REUBEN BARIS | PRODUCT MANAGER, TEAM 25 | HERBICIDE BRANCH
U.S. ENVIRONMENTAL PROTECTION AGENCY, OFFICE OF PESTICIDE PROGRAMS | (703) 305-7356

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Message

From: Montague, Kathryn V. [Montague.Kathryn@epa.gov]
Sent: 11/20/2018 1:29:41 PM
To: BHAKTA, TINA [AG/1005] [tina.bhakta@bayer.com]
CC: Baris, Reuben [Baris.Reuben@epa.gov]; Kenny, Daniel [Kenny.Dan@epa.gov]; Schmid, Emily [Schmid.Emily@epa.gov]; Meadows, Sarah [Meadows.Sarah@epa.gov]
Subject: FW: Dicamba Slides and data
Attachments: Dicamba_Metadata_181119.xlsx; Dicamba_PULA_Counties.xlsx; Dicamba_Bulletin_181115.pptx; Dicamba_PULA.gdb.zip

Good Morning, Tina,

Sorry for the delay in getting you the "preview" of the Bulletins Live (BLT) materials.

We will unfortunately not be able to get the preview option of BLT cleared this week, so please use the attached files to review. This email includes a slide set of what the PULAs will look like, along with the language growers will see when they go into the application, a shapefile so they can map the PULAs in GIS, and the metadata that will link the PULAs to each product. We've also reattached the county list.

Please note that the goal is to post the updates to the Bulletins Live site tomorrow, so we will need any feedback by tomorrow morning in order to meet that deadline. I apologize for the short turn-around time.

Best Regards,
Kay

Dicamba Limitation Language

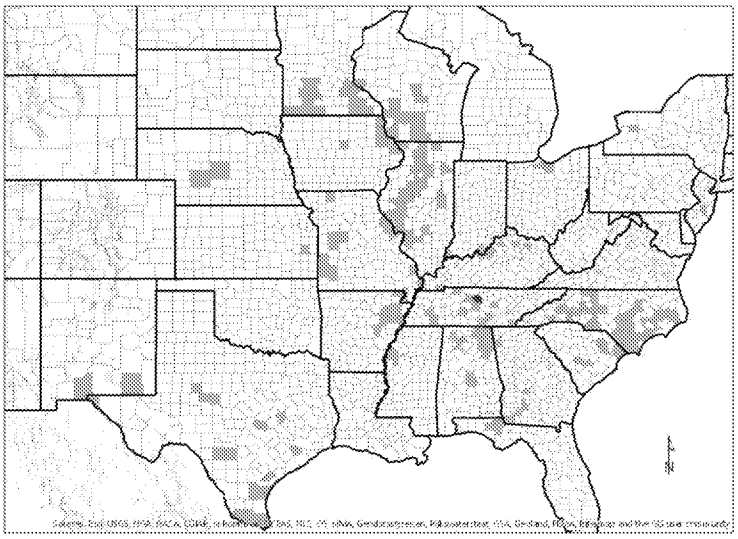
- In combination with the 110 foot in-field wind-directional spray drift buffer, a 57 foot omnidirectional infield buffer is required to protect federally listed threatened and endangered species. Non-sensitive areas, defined below, may be included as part of the buffer.

  Non-sensitive areas:

  The following areas may be included in the buffer distance calculation when directly adjacent to the treated field edges:

  1. *Roads, paved or gravel surfaces, mowed and/or managed areas adjacent to field such as rights of way.*
  2. *Planted agricultural fields containing: corn, cotton, and soybeans.*
  3. *Areas covered by the footprint of a building, silo, or other man made structure with walls and or roof.*

Dicamba Pesticide Use Limitation Areas - Draft 11-6-2018

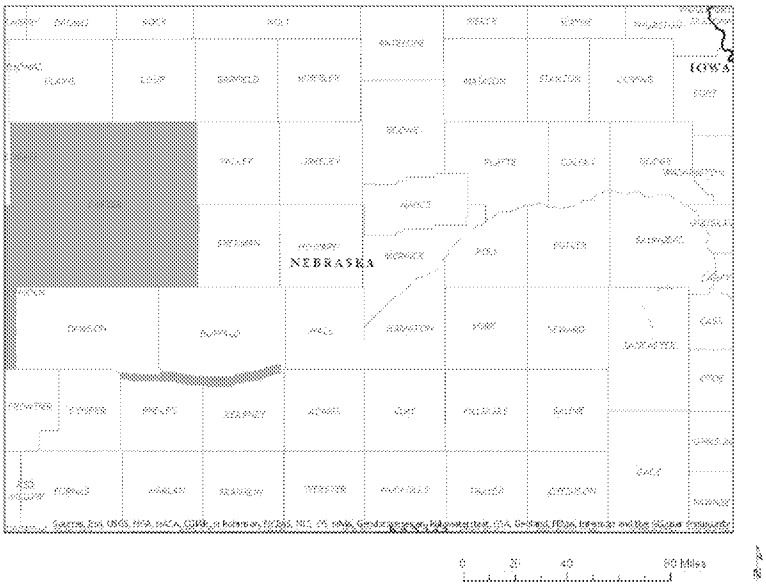


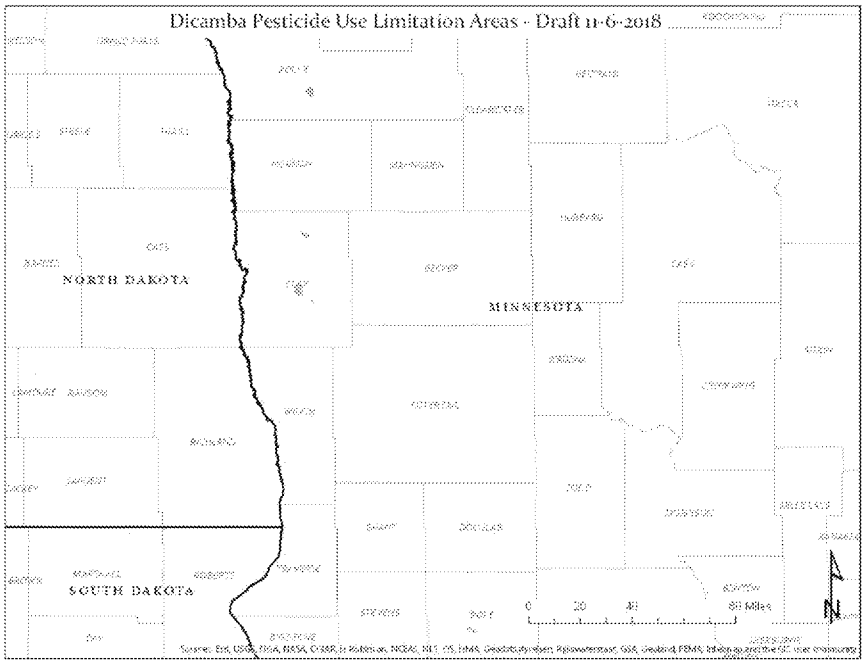
Original Label for Wilson County, TN

Pesticide Use Limitation Area

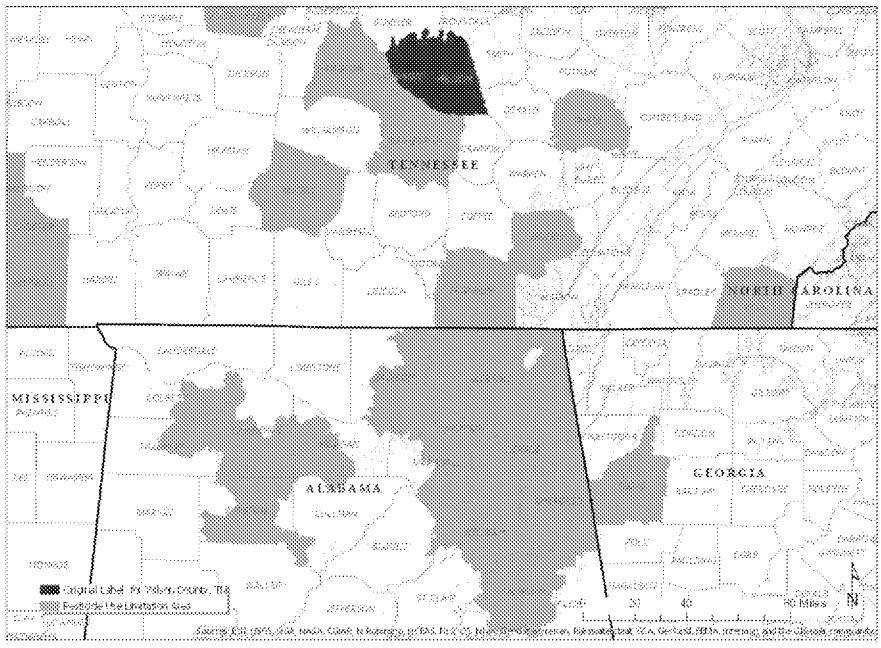
0 250 500 1,000 Miles

Dicamba Pesticide Use Limitation Areas - Draft 11-6-2018




Dicamba Pesticide Use Limitation Areas - Draft 11-6-2018
NORTH DAKOTA
MINNESOTA
SOUTH DAKOTA
0
20
40
80 Miles
N

Dicamba Pesticide Use Limitation Areas - Draft 11-6-2018



Message

From: MARVIN, THOMAS [AG/1920] [thomas.marvin@bayer.com]
Sent: 11/6/2018 2:17:05 PM
To: Baris, Reuben [Baris.Reuben@epa.gov]
Subject: RE: Notification
Attachments: RE: example bulletin

Thanks Reuben. Our folks are just looking for confirmation, not necessarily a Bulletin that is actually live at this point. Based on EFED document, looks like county total is 201, and species total is 69. Can you confirm that the attached exceptions that we accepted are in fact the final exceptions? Our folks would like to begin addressing with growers.

Tom Marvin
Director, Federal Regulatory Affairs
1300 I Street, NW
Washington, DC 20005
Cell: 202-676-7846
Desk: 202-383-2851

From: Baris, Reuben [mailto:Baris.Reuben@epa.gov]
Sent: Monday, November 05, 2018 11:03 AM
To: MARVIN, THOMAS [AG/1920] <thomas.marvin@bayer.com>
Subject: RE: Notification

I'll see about Friday. Still waiting for confirmation from the other companies. I'm not in Friday, but I'm not the lynch pin.

I'll keep you updated with bulletins, I don't have a good estimate as I haven't engaged with that team today. But note the 6-month trigger is "you must check bulletins no more than 6 months prior to applying."

REUBEN BARIS | PRODUCT MANAGER, TEAM 25 | HERBICIDE BRANCH
U.S. ENVIRONMENTAL PROTECTION AGENCY, OFFICE OF PESTICIDE PROGRAMS | (703) 305-7356

From: MARVIN, THOMAS [AG/1920] [mailto:thomas.marvin@bayer.com]
Sent: Monday, November 05, 2018 11:00 AM
To: Baris, Reuben <Baris.Reuben@epa.gov>
Subject: RE: Notification

Thanks Reuben, will do. Also:

-our folks prefer this Friday for the meeting on study design. Does that look like it will work?
-What is your estimate on Bulletins Live? We see there is a 6 month trigger in the label that we will want to educate on as soon as we can.

Tom Marvin
Director, Federal Regulatory Affairs
1300 I Street, NW
Washington, DC 20005
Cell: 202-676-7846
Desk: 202-383-2851

From: Baris, Reuben [mailto:Baris.Reuben@epa.gov]
Sent: Monday, November 05, 2018 10:57 AM
To: MARVIN, THOMAS [AG/1920] <thomas.marvin@bayer.com>
Subject: Notification

Send it in as a notification.

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Message

From: MARVIN, THOMAS [AG/1920] [thomas.marvin@monsanto.com]
Sent: 10/31/2018 8:07:39 PM
To: Baris, Reuben [Baris.Reuben@epa.gov]
Subject: RE: example bulletin

We accept this language for use in Bulletins Live. Changes intended to reflect difference between FIFRA and ESA mitigations.

In combination with the 110 foot in-field wind-directional spray drift buffer, a 57 foot omnidirectional infield buffer is required to protect federally listed threatened and endangered species. The following areas may be included in the buffer distance calculation when directly adjacent to the treated field edges:

- Roads, paved or gravel surfaces, mowed and/or managed areas adjacent to field such as rights of way.
- Agricultural fields that have been prepared for planting or planted agricultural fields

Tom Marvin
Director, Federal Regulatory Affairs
1300 I Street, NW
Washington, DC 20005
Cell: 202-676-7846
Desk: 202-383-2851

From: Baris, Reuben [mailto:Baris.Reuben@epa.gov]
Sent: Wednesday, October 31, 2018 12:47 PM
To: MARVIN, THOMAS [AG/1920] <thomas.marvin@bayer.com>
Subject: RE: example bulletin

Please propose this back to the Agency.

In combination with the 110 foot in-field wind-directional spray drift buffer, a 57 foot omnidirectional infield buffer is required to protect federally listed threatened and endangered species. Non-sensitive areas defined below may be included as part of the buffer.

Non-sensitive areas – (must be consistent across all three labels)

- The following areas may be included in the buffer distance calculation when directly adjacent to the treated field edges:
  - Roads, paved or gravel surfaces, mowed and/or managed areas adjacent to field such as rights of way.
  - Planted agricultural fields containing: corn, dicamba tolerant cotton, dicamba tolerant soybean, sorghum, proso millet, small grains and sugarcane. If the applicator intends to include such crops as dicamba tolerant cotton and/or dicamba tolerant soybeans in the buffer distance calculation, the applicator must confirm the crops are in fact dicamba tolerant.
  - Agricultural fields that have been prepared for planting

REUBEN BARIS | PRODUCT MANAGER, TEAM 25 | HERBICIDE BRANCH
U.S. ENVIRONMENTAL PROTECTION AGENCY, OFFICE OF PESTICIDE PROGRAMS | (703) 305-7356

Message

From: ORR, THOMAS B [AG/1005] [thomas.orr@bayer.com]
Sent: 11/5/2018 8:02:39 PM
To: Baris, Reuben [Baris.Reuben@epa.gov]
CC: MARVIN, THOMAS [AG/1920] [thomas.marvin@monsanto.com]; BHAKTA, TINA [AG/1005] [tina.bhakta@monsanto.com]
Subject: Notification of Minor Revisions to Master Labeling for M1768 Herbicide (EPA Reg. 524-617)
Attachments: 524-617_Cover.Letter.pdf; 8570-1_Application.524-617.pdf; MASTER LABEL 524-617_11052018_highlighted.pdf; MASTER LABEL 524-617_11052018.pdf

Reuben,

Per your request, attached you will find the following documents:

- Cover letter describing minor revisions to M1768 Herbicide master labeling
- Completed from 8570-1
- Highlighted version of revised master labeling
- Clean version of revised master labeling

Please feel free to reach out to me directly or Tom Marvin with any questions.

Best regards,

Tom Orr
Global Regulatory Affairs Manager

///////////////////

Bayer Crop Science
Monsanto Company
Regulatory Science
Building FF
Chesterfield, 63017, USA
Tel: +1 636-737-9347
Cell: +1 314-422-1748
E-mail: thomas.orr@bayer.com
Web: http://www.bayer.com

/// Follow Bayer on:
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If improper activity or use is suspected, all available information may be used by the Company for possible disciplinary action, prosecution, civil claim or any remedy or lawful purpose.

U.S. Environmental Protection Agency
Document Processing Desk (NOTIF)
Office of Pesticide Programs (7504P)
Room S4900, One Potomac Yard
2777 Crystal Drive Arlington, VA 22202

Mr. Reuben Baris
Product Manager, Team 25
Herbicide Branch

November 5, 2018

Thomas B. Orr
Regulatory Affairs Manager

Bayer Crop Science Division
Monsanto Company

700 Chesterfield Parkway West
Chesterfield, Missouri 63017
USA

Tel. +1 636 737 9347
thomas.orr@bayer.com

www.bayer.com

Subject: Notification of Minor Revisions to Master Labeling per PR Notice 98-10 for M1768 Herbicide / XtendiMax™ With VaporGrip™ Technology EPA Reg. 524-617.

Dear Mr. Baris;

Monsanto Company is herein providing notification of new Master Labeling for **M1768 Herbicide** (XtendiMax® with VaporGrip® Technology, EPA Reg. No. 524-617). This new version supersedes the version previously approved on November 1, 2018.

The minor revisions in this version of the Master Labeling include the following:

- General label cleanup to ensure consistency of terminology throughout label
- Correction of minor typographical errors
- Updated inactive hyperlink from www.weedresistancemanagement.com to www.iwilltakeaction.com
- Updated Section 9.4 to clarify that 1 lb dicamba acid equivalent corresponds to 44 fluid ounces of product
- Removed text from Section 12.2 from previous draft version of the label

This notification is consistent with the provisions of PR Notice 98-10 and EPA regulations at 40 CFR 52.46, and no other changes have been made to the labeling or the confidential statement of formulation of this product. I understand that it is a violation of 18 U.S.C. Soc. 1001 to willfully make any false statement to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98-10 and 40 CGR 152.46, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.

Included in this submission are the following documents:

- Cover letter
- 8570-1 Application form
- Highlighted Revised Master Labeling
- Clean Revised Master Labeling

If you have any questions regarding this submission, please contact Thomas Marvin in our Washington D.C. office at (202) 383-2851, or by email at thomas.marvin@bayer.com, or me directly at (636) 737-9347, or by e-mail at thomas.orr@bayer.com.

Yours sincerely,

Bayer U.S. – Crop Science
Monsanto Company

Thomas B. Orr
Regulatory Affairs Manager

Please read instructions on reverse before completing form. Form Approved. OMB No. 2070-0060.

EPA

United States
Environmental Protection Agency
Washington, DC 20460

☐ **Registration**
☐ **Amendment**
☒ **Other**

OPP Identifier Number

Application for Pesticide – Section I

1. Company/Product Number	2. EPA Product Manager	3. Proposed Classification
Monsanto Company / 524-617	Reuben Baris	☐ None ☒ Restricted
4. Company/Product (Name) Monsanto Company / M1768 Herbicide (XtendiMax™ with VaporGrip™ Technology)	PM # 25	

5. Name and Address of Applicant *(Include ZIP Code)*
Monsanto Company
1300 I (Eye) Street, NW – Suite 450 East
Washington, DC 20005
☐ Check if this is a new address

6. **Expedited Review.** In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to:
EPA Reg. No. _____
Product Name _____

Section – II

☐ Amendment – Explain below.
☐ Resubmission in response to Agency letter dated
☒ Notification – Explain below.
☐ Final printed labels in response to Agency letter dated
☐ "Me Too" Application.
☐ Other – Explain below.

Explanation: Use additional page(s) if necessary. (For section I and Section II.)

Notification of Minor Revisions to Master Labeling per PR Notice 98-10 For M1768 Herbicide / XtendiMax™ With VaporGrip™ Technology EPA Reg. 524-617

Secton – III

1. Material This Product Will Be Packaged In:

Child-Resistant Packaging	Unit Packaging	Water Soluble Packaging	2. Type of Container
☐ Yes* ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Metal ☐ Plastic ☐ Glass ☐ Paper ☐ Other (Specify)
Certification must be submitted	If "Yes" Unit Packaging wgt. / No. per Container	If "Yes" Package wgt. / No. per Container	

3. Location of Net Contents Information	4. Size(s) Retail Container	5. Location of Label Directions
☐ Label ☐ Container		☐ On Label ☐ On Labeling accompanying product

6. Manner in Which Label is Affixed to Product ☐ Lithograph ☐ Paper glued ☐ Stenciled ☐ Other _____

Section – IV

1. Contact Point *(Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)*

Name	Title	Telephone No. *(Include Area Code)*
Thomas Marvin	Director, U.S. Regulatory Affairs	202-383-2851

Certification
I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.

6. Date Application Received **(Stamped)**

2. Signature	3. Title
	Regulatory Affairs Manager
4. Typed Name	5. Date
Thomas B. Orr	**November 5, 2018**

EPA Form 8570-1 (Rev. 8-94) Previous editions are obsolete.

MASTER LABEL FOR EPA REG. NO. 524-617

RESTRICTED USE PESTICIDE

For retail sale to and use only by Certified Applicators

This labeling expires on 12/20/2020. Do not use or distribute this product after 12/20/2020.

Primary Brand Name:

M1768 Herbicide

Alternate Brand Name:

XtendiMax® With VaporGrip® Technology

DICAMBA	GROUP	4	HERBICIDE

ACTIVE INGREDIENT:

Diglycolamine salt of dicamba (3,6-dichloro-*o*-anisic acid)* 42.8%
OTHER INGREDIENTS: 57.2%

TOTAL: 100.0%
* contains 29.0%, 3,6-dichloro-*o*-anisic acid (2.9 pounds acid equivalent per U.S. gallon or 350 grams per liter).

ED_005138A_00000123-00001

RESTRICTED USE PESTICIDE

For retail sale to and use only by Certified Applicators

XtendiMax® With VaporGrip® Technology

Complete Directions for Use

This labeling expires on 12/20/2020. Do not use or distribute this product after 12/20/2020.

EPA Reg. Number: 524-617

For weed control in asparagus, conservation reserve programs, corn, cotton, fallow croplands, general farmstead (noncropland), sorghum, grass grown for seed, hay, proso millet, pasture, rangeland, small grains, sod farms and farmstead turf, soybean, sugarcane, cotton with XtendFlex Technology, Roundup Ready 2 Xtend Soybean, and XtendFlex Soybean.

DICAMBA	GROUP	4	HERBICIDE

This label supersedes any previously issued labeling for this product, including previously issued supplemental labeling.

XtendiMax® With VaporGrip® Technology is approved by U.S. EPA for all uses specified on this label in the following states, subject to county restriction as noted: Alabama, Arkansas, Arizona, Colorado, Delaware, Florida (excluding Palm Beach County), Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Michigan, Minnesota, Mississippi, Missouri, Nebraska, New Jersey, New Mexico, New York, North Carolina, North Dakota, Oklahoma, Ohio, Pennsylvania, South Carolina, South Dakota, Tennessee (excluding Wilson County), Texas, Virginia, West Virginia, Wisconsin.

Check the registration status of each product in each state before using.

READ THE ENTIRE LABEL FOR **XTENDIMAX® WITH VAPORGRIP® TECHNOLOGY**
BEFORE PROCEEDING WITH THE USE DIRECTIONS CONTAINED IN THIS LABEL

READ AND FOLLOW ALL APPLICABLE DIRECTIONS, RESTRICTIONS, AND PRECAUTIONS ON THE CONTAINER LABEL AND BOOKLET AND WWW.XTENDIMAXAPPLICATIONREQUIREMENTS.COM.

Read the "LIMIT OF WARRANTY AND LIABILITY" statement at the end of the label before buying or using. If terms are not acceptable, return at once unopened.

Net contents:

EPA Establishment No.:

ED_005138A_00000123-00002

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1.0 INGREDIENTS

ACTIVE INGREDIENT:

Diglycolamine salt of dicamba (3,6-dichloro-*o*-anisic acid)* 42.8%
OTHER INGREDIENTS: 57.2%

TOTAL: 100.0%
* contains 29.0%, 3,6-dichloro-*o*-anisic acid (2.9 pounds acid equivalent per U.S. gallon or 350 grams per liter).

DICAMBA	GROUP	4	HERBICIDE

2.0 IMPORTANT PHONE NUMBERS

1. FOR PRODUCT INFORMATION OR ASSISTANCE IN USING THIS PRODUCT, CALL TOLL-FREE, 1-800-332-3111.
2. IN CASE OF AN EMERGENCY INVOLVING THIS HERBICIDE PRODUCT, OR FOR MEDICAL ASSISTANCE, CALL COLLECT, DAY OR NIGHT, (314)-694-4000.

IN CASE OF SPILL:

Steps to be taken in case material is released or spilled:

Dike and contain the spill with inert material (sand, earth, etc.) and transfer liquid and solid diking material to separate containers for disposal. Remove contaminated clothing, and wash affected skin areas with soap and water. Wash clothing before re-use. Keep the spill out of all sewers and open bodies of water.

3.0 PRECAUTIONARY STATEMENTS

3.1 Hazards to Humans and Domestic Animals

Keep out of reach of children.

CAUTION!

Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

FIRST AID	
IF IN EYES	• Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
IF SWALLOWED:	• Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow.

ED_005138A_00000123-00004

	• Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give anything by mouth to an unconscious person.
IF ON SKIN OR CLOTHING:	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 to 20 minutes. • Call a poison control center or doctor for treatment advice.
• Have the product container or label with you when calling a poison control center or doctor, or going for treatment. • You can call **(314) 694-4000**, collect day or night, for emergency medical treatment information. • This product is identified as **XtendiMax® With VaporGrip® Technology, EPA Registration No. 524-617.**	

PERSONAL PROTECTIVE EQUIPMENT (PPE)

All mixers, loaders, applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks

See "Engineering Controls Statement" for additional requirements.
Follow the manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

ENGINEERING CONTROLS STATEMENT

When handlers use closed systems, or enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

IMPORTANT: When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for "all mixers, loaders, applicators and other handlers" and have such PPE immediately available for use in an emergency, such as a spill or equipment breakdown.

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

3.2 Environmental Hazards

Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters or rinsate. Apply this product only as directed on the label.

This chemical is known to leach through soil into ground water under certain conditions as a result of agricultural use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.

Ground and Surface Water Protection

Point source contamination - To prevent point source contamination, do not mix or load this pesticide product within 50 feet of wells (including abandoned wells and drainage wells), sink holes, perennial or intermittent streams and rivers, and natural or impounded lakes and reservoirs. Do not apply pesticide product within 50 feet of wells. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pad or properly diked mixing/loading areas as described below.

Mixing, loading, rinsing, or washing operations performed within 50 feet of a well are allowed only when conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be on or move across the pad. The pad must be self-contained to prevent surface water flow over or from the pad. The pad capacity must be maintained at 110% that of the largest pesticide container or application equipment used on the pad and have sufficient capacity to contain all product spills, equipment or container leaks, equipment wash waters, and rainwater that may fall on the pad. The containment capacity does not apply to vehicles delivering pesticide shipments to the mixing/loading site. States may have in effect additional requirements regarding wellhead setbacks and operational containment.

Care must be taken when using this product to prevent: a) back siphoning into wells, b) spills or c) improper disposal of excess pesticide, spray mixtures or rinsates. Check valves or anti-siphoning devices must be used on all mixing equipment.

Movement by surface runoff or through soil - Do not apply under conditions which favor runoff. Do not apply to impervious substrates such as paved or highly compacted surfaces in areas with high potential for ground water contamination. Ground water contamination may occur in areas where soils are permeable or coarse and ground water is near the surface. Do not apply to soils classified as sand with less than 3% organic matter and where ground water depth is shallow. To minimize the possibility of ground water contamination, carefully follow application rate recommendations as affected by soil type in the Crop Specific Information section of this label.

Movement by water erosion of treated soil - Do not apply or incorporate this product through any type of irrigation equipment nor by flood or furrow irrigation. Ensure treated areas have received at least one-half inch rainfall (or irrigation) before using tailwater for subsequent irrigation of other fields.

Endangered Species Concerns
Use of this product in a manner inconsistent with its labeling may pose a hazard to endangered or threatened species. When using this product, you must follow the measures contained in the Endangered Species Protection Bulletin for the area in which you are applying the product. To obtain Bulletins, no more than six months before using this product, consult https://www.epa.gov/endangered-species or call 1-844-447-3813. You must use the Bulletin valid for the month in which you will apply the product.

It is a Federal offense to use any pesticide in a manner that results in the death of an endangered species.

3.3 Physical or Chemical Hazards

Do not store or heat near oxidizing agents, hazardous chemical reaction may occur.

4.0 DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling. This product can only be used in accordance with the Directions for Use on this label. This labeling must be in the user's possession during application.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulations.

This is a restricted use pesticide.

4.1 Training

Prior to applying this product in the 2019 growing season and each growing season thereafter, all applicator(s) applying this product must complete dicamba or auxin-specific training. If training is available and required by the state where the applicator intends to apply this product, the applicator must complete that training. If the state where the application is intended does not require auxin or dicamba-specific training, then the applicator must complete dicamba or auxin-specific training provided by one of the following sources: a) a registrant of a dicamba product approved for in-crop use with dicamba-tolerant crops, or b) a state or state-authorized provider.

4.2 Record Keeping

Record keeping is required for applications of this product. **The certified applicator must keep the following records for a period of two years**; records must be generated as soon as practical but no later than 72 hours after application and a record must be kept for each application of Xtendimax with VaporGrip Technology. Records must be made available to State Pesticide Control Official(s), USDA, and EPA upon request. An example form summarizing record keeping requirements can be found on www.xtendimaxapplicationrequirements.com.

1. All Items required by 7 CFR Part 110 (RECORDKEEPING ON RESTRICTED USE PESTICIDES BY CERTIFIED APPLICATORS) including:
    a. The brand or product name
    b. The EPA registration number
    c. The total amount applied
    d. The month, day, and year of application
    e. The location of the application
    f. The crop, commodity, stored product, or site of application
    g. The size of treated area
    h. The name of the certified applicator
    i. The certification number of the certified applicator
2. Training: Date and provider of required training completed and proof of completion.
3. Receipts of Purchase: Receipts or copies for the purchase of this product.
4. Product Label: A copy of this product label, and any state special local needs label that supplements this label.
5. Crop Planting Date: Record of the date at which the crop was planted.
6. Buffer Requirement: Record of the buffer distance calculation and any areas included within the buffer distance calculations as allowed in Section 9.1.4.a.
7. Sensitive Crops Awareness: Record that a sensitive crop registry was consulted and survey adjacent fields documenting the crops/areas surrounding the field prior to application. At a minimum, records must include the name of the sensitive crop registry and the date it was consulted and documentation of adjacent crops/areas and the date the survey was conducted (read Section 9.1.4.b for additional information).
8. Start and Finish Times of Each Application: Record of the time at which the application started and the time when the application finished.
9. Application Timing: Record of the type of application (for example: pre-emergence, post-emergence) and number of days after planting if post-emergence.
10. Air Temperature: Record of the air temperature in degrees Fahrenheit at the start and completion of each application.

11. Wind Speed and Direction: Record of the wind speed and direction (the direction from which the wind is blowing) at boom height at the start and completion of each application of this product (Read Section 9.1.1 for information on wind speed).
12. Nozzle and Pressure: Record of the spray nozzle manufacturer/brand, type, orifice size, and operating pressure used during each application of this product (Read Section 9.1.1 for information on nozzles and pressures.)
13. Tank Mix Products: Record of the brand names and EPA registration numbers (if available) for all products (pesticides, adjuvants, and other products) that were tank mixed with this product for each application (Read Section 8.0 for more information on tank mixing.)
14. Spray System Cleanout: Record of compliance with the section of this label titled Section 9.5: Proper Spray System Equipment Cleanout. At a minimum, records must include the confirmation that the spray system was clean before using this product and that the post-application cleanout was completed in accordance with Section 9.5.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about Personal Protective Equipment (PPE), and restricted-entry intervals. The requirements in this box only apply to uses of this product that are covered by the WPS.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 24 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as, plants, soil, or water is:

- Coveralls worn over short-sleeved shirt and short pants
- Chemical-resistant footwear plus socks
- Waterproof gloves
- Chemical-resistant headgear for overhead exposure
- Protective eyewear

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Do not enter or allow people (or pets) to enter the treated area until sprays have dried. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Do not enter or allow other people or pets to enter until sprays have dried.

5.0 STORAGE AND DISPOSAL

Proper pesticide storage and disposal are essential to protect against exposure to people and the environment due to leaks and spills, excess product or waste, and vandalism. Do not allow this product to contaminate water, foodstuffs, feed or seed by storage and disposal. Open dumping is prohibited. This product may not be mixed, loaded, or used within 50 feet of all wells including abandoned wells, drainage wells, and sinkholes. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pad or properly diked mixing/loading areas as described above

5.1 Pesticide Storage

Groundwater contamination may be reduced by diking and flooring of permanent liquid bulk storage sites with an impermeable material. Spillage or leakage should be contained and absorbed with clay granules, sawdust, or equivalent material for disposal.
Store in original container in a well-ventilated and away from food, pet food, feed, seed, fertilizers, and veterinary supplies. Avoid cross-contamination with other pesticides. Keep container closed to prevent spills and contamination.

5.2 Pesticide Disposal

To avoid wastes, use all material in this container, including rinsate, by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide

disposal program. Such programs are often run by state or local governments or by industry. All disposal must be in accordance with applicable federal, state and local regulations and procedures.
[*Alternate PESTICIDE DISPOSAL statement for transport vehicles only:* To avoid wastes, empty as much product from this transport vehicle as possible for repackaging or use in accordance with label directions. If wastes cannot be avoided, offer remaining product or rinsate to a waste disposal facility or pesticide disposal program. All disposal must be in accordance with applicable federal, state and local regulations and procedures.]

5.3 Container Handling and Disposal

[*Optional label statement if applicable*: See container label for container handling and disposal instructions and refilling limitations.]

[*CONTAINER HANDLING AND DISPOSAL STATEMENTS AND REFILLING LIMITATIONS FOR CONTAINER LABELS*]

[*CONTAINER HANDLING AND DISPOSAL STATEMENT AND REFILLING LIMITATION FOR NONREFILLABLE RIGID CONTAINERS OF LESS THAN 1-GALLON CAPACITY*]

Nonrefillable container. Do not reuse or refill this container.

[*Alternate container statement:* Nonrefillable container. Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state.]

Triple rinse this container promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Then offer this container for recycling, if available. If recycling is not available, dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.

[*Alternate container disposal statement:* Once properly rinsed, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or Monsanto at 1-800-ROUNDUP (1-800-768-6387). If recycling is not available, dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.]

[*CONTAINER HANDLING AND DISPOSAL STATEMENT AND REFILLING LIMITATION FOR NONREFILLABLE RIGID PLASTIC 2.5-GALLON CONTAINERS AND OTHER NONREFILLABLE CONTAINERS OF GREATER THAN 1-GALLON BUT EQUAL TO OR LESS THAN 5-GALLON CAPACITY*]

Nonrefillable container. Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state.

[*Alternate container statement:* Nonrefillable container. Do not reuse or refill this container.]

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Triple rinse or pressure rinse (or equivalent) this container promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Once properly rinsed, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. [*Optional container disposal statement:* To find the nearest site, contact your chemical dealer or Monsanto at 1-800-ROUNDUP (1-800-768-6387)]. If recycling is not available, dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.

[*Alternate container disposal statement:* Then offer this container for recycling, if available. If recycling is not available, dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.]

[*CONTAINER HANDLING AND DISPOSAL STATEMENT AND REFILLING LIMITATION FOR NONREFILLABLE RIGID PLASTIC 30-GALLON CONTAINERS AND OTHER NONREFILLABLE CONTAINERS OF GREATER THAN 5-GALLON CAPACITY*]

Nonrefillable container. Do not reuse or refill this container.

[*Alternate container statement:* Nonrefillable container. Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state.]

Triple rinse or pressure rinse (or equivalent) this container promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Once properly rinsed, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. [*Alternate container disposal statement:* To find the nearest site, contact your chemical dealer or Monsanto at 1-800-ROUNDUP (1-800-768-6387)]. If recycling is not available, dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.

[*Alternate container disposal statement:* Then offer the container for recycling, if available. If recycling is not available, dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.]

[*Optional container label statement:* Return Properly Rinsed Container to Monsanto for Recycling Contact: 1-800-ROUNDUP (1-800-768-6387)]

[*CONTAINER HANDLING AND DISPOSAL STATEMENT AND REFILLING LIMITATION FOR ALL REFILLABLE CONTAINERS, EXCEPT TRANSPORT VEHICLES*]

Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose.

Cleaning this container before refilling is the responsibility of the refiller. Cleaning this container before final disposal is the responsibility of the person disposing of the container.

To clean this container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer this container for recycling, if available.

[*Optional container disposal statement:* To obtain information about recycling refillable containers, contact Monsanto Company at 1-800-ROUNDUP (1-800-768-6387)]

[*Optional container label statement:* Return Properly Rinsed Container to Monsanto for Recycling, Call 1-800-ROUNDUP (1-800-768-6387)]

[*CONTAINER HANDLING AND DISPOSAL STATEMENT FOR ALL TRANSPORT VEHICLES AS DEFINED IN 40 CFR 156.3]*

THIS LABEL FOR USE WITH TRANSPORT VEHICLES ONLY

Emptied container retains vapor and product residue. Observe all precautions stated on this label until the container is cleaned, reconditioned or destroyed. Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, and worn-out threads and closures. Clean thoroughly before reuse for transportation of a material of different composition or before retiring this transport vehicle from service.

[Alternative label statement: NET CONTENTS: See Bill of Lading]

[Alternative label statement: LOT: See Bill of Lading]

[Alternative label statement: For Net Contents and Lot Number, see Bill of Lading]

6.0 PRODUCT INFORMATION

XtendiMax® With VaporGrip® Technology is approved by U.S. EPA for all uses specified on this label in the following states, subject to county restriction as noted: Alabama, Arkansas, Arizona, Colorado, Delaware, Florida (excluding Palm Beach County), Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Michigan, Minnesota, Mississippi, Missouri, Nebraska, New Jersey, New Mexico,

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New York, North Carolina, North Dakota, Oklahoma, Ohio, Pennsylvania, South Carolina, South Dakota, Tennessee (excluding Wilson County), Texas, Virginia, West Virginia, Wisconsin.

Additional state restrictions and requirements may apply. The applicator must comply with any additional state requirements and restrictions.

This product is a water-soluble formulation intended for control and suppression of many annual, biennials, and perennial broadleaf weeds, as well as woody brush and vines listed in the WEEDS CONTROLLED section of this label. This product may be used for control of these weeds in asparagus, corn, cotton, conservation reserve programs, fallow cropland, grass grown for seed, hay, proso millet, pasture, rangeland, general farmstead (noncropland), small grains, sod farms and farmstead turf, sorghum, soybean, sugarcane, Cotton with XtendFlex Technology, Roundup Ready 2 Xtend Soybean, and XtendFlex Soybean.

XtendiMax® With VaporGrip® Technology is a contact, systemic herbicide, which can have moderate residual control on small seeded broadleaf weeds, including waterhemp, lambsquarters and Palmer pigweed, depending on rainfall and soil type.

XtendiMax® With VaporGrip® Technology is readily absorbed by plants through shoot and root uptake, translocates throughout the plant's system, and accumulates in areas of active growth. XtendiMax® With VaporGrip® Technology interferes with the plant's growth hormones (auxins) resulting in death of many broadleaf weeds.

Failure to properly clean the entire spray system can result in inadvertent contamination of the spray system. You must ensure that the spray system used to apply this product is clean before using this product.

Rainfast period: Rainfall or irrigation occurring within 4 hours after postemergence applications may reduce the effectiveness of this product.

Refer to the CROP-SPECIFIC INFORMATION and CROPS WITH XTEND TECHNOLOGY sections for application timing and other crop-specific details.

6.1 Restrictions

The applicator must read the entire label, including product labeling and follow all restrictions for XtendiMax® With VaporGrip® Technology. Restrictions included, but are not limited to:

- DO NOT APPLY THIS PRODUCT AERIALLY.
- DO NOT TANK MIX WITH PRODUCTS CONTAINING AMMONIUM SALTS SUCH AS AMMONIUM SULFATE (AMS) AND UREA AMMONIUM NITRATE. Small quantities of AMS can greatly increase the volatility potential of dicamba. Read the TANK MIXING INSTRUCTIONS of this label (Section 8.0) for instructions regarding other tank mix products.
- DO NOT APPLY TO CROPS UNDER STRESS DUE TO LACK OF MOISTURE, HAIL DAMAGE, FLOODING, HERBICIDE INJURY, MECHANICAL INJURY, INSECTS, OR WIDELY FLUCTUATING TEMPERATURES AS INJURY MAY RESULT.
- DO NOT APPLY THROUGH ANY TYPE OF IRRIGATION EQUIPMENT. DO NOT TREAT IRRIGATION DITCHES OR WATER USED FOR CROP IRRIGATION OR DOMESTIC PURPOSES.
- DO NOT MAKE APPLICATION OF THIS PRODUCT IF RAIN THAT MAY EXCEED SOIL FIELD CAPACITY AND RESULT IN SOIL RUNOFF IS EXPECTED IN THE NEXT 24 HOURS

Review the entire label including, specific crop use direction sections for additional restrictions.

7.0 WEED RESISTANCE MANAGEMENT

DICAMBA	GROUP	4	HERBICIDE

Dicamba mimics auxin (a plant hormone) resulting in a hormone imbalance in sensitive plants that interferes with normal cell division, cell enlargement, and protein synthesis. Dicamba active ingredient is a Group 4 herbicide based on the mode of action classification system of the Weed Science Society of America. Any weed population can contain plants naturally resistant to Group 4 herbicides. Weed species resistant to Group 4 herbicides can be effectively managed utilizing another herbicide from a different Group, or by using other cultural or mechanical practices.

7.1 Weed Management Practices

Certain agronomic practices can delay or reduce the likelihood that resistant weed populations will develop and can be utilized to manage weed resistance once it occurs.

Do not use less than the labeled rate of this product in a single application. Using the appropriate application rate can minimize the selection for resistant weeds.

Proactively implementing diversified weed control strategies to minimize selection for weed populations resistant to one or more herbicides is a best practice. A diversified weed management program may include the use of multiple herbicides with different sites of action and overlapping weed spectrum with or without tillage operations and/or other cultural practices. Research has demonstrated that using the labeled rate and directions for use is important to delay the selection for resistance.

The continued effectiveness of this product depends on the successful implementation of a weed resistance management program.

To aid in the prevention of developing weeds resistant to this product:

- Scout fields before application to ensure herbicides and rates will be appropriate for the weed species and weed sizes present.
- Start with a clean field, using either a burndown herbicide application or tillage.
- Control weeds early when they are relatively small (less than 4 inches).
- Apply full rates of XtendiMax® With VaporGrip® Technology for the most difficult to control weed in the field at the specified time (correct weed size) to minimize weed escapes.
- Avoid tank mixtures with other herbicides that reduce the efficacy of this product (through antagonism), or with ones that encourage application rates of this product below those specified on this label.
- Scout fields after application to detect weed escapes or shifts in weed species.
- Control weed escapes before they reproduce by seed or proliferate vegetatively.
- Report any incidence of non-performance of this product against a particular weed species to your Monsanto retailer or Bayer representative or call 1-844-RRXTEND (1-844-779-8363).
- If resistance is suspected, treat weed escapes with an herbicide having a site of action other than Group 4 and/or use non-chemical methods to remove escapes, as practical, with the goal of preventing further seed production. EPA defines suspected herbicide resistance as the situation where the following three indicators occur at a site or location:
    - Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds;
    - A spreading patch of non-controlled plants of a particular weed species; and
    - Surviving plants mixed with controlled individuals of the same species.

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Additionally, users should follow as many of the following herbicide resistance management practices as is practical:

- Use a broad spectrum soil-applied herbicide with other sites of action as a foundation in a weed control program.
- Utilize sequential applications of herbicides with alternative sites of action.
- Rotate the use of this product with non-Group 4 herbicides.
- Avoid making more than two applications of dicamba and any other Group 4 herbicides within a single growing season unless mixed with an herbicide with a different mechanism of action with an overlapping spectrum for the difficult to control weeds.
- Incorporate non-chemical weed control practices, such as mechanical cultivation, crop rotation, cover crops and weed-free crop seeds, as part of an integrated weed control program.
- Use good agronomic principles that enhance crop development and crop competitiveness.
- Thoroughly clean plant residues from equipment before leaving fields suspected to contain resistant weeds.
- Manage weeds in and around fields, during and after harvest to reduce weed seed production.

Contact the local agricultural extension service, ~~Monsanto~~ Bayer representative, agricultural retailer or crop consultant for further guidance on weed control practices as needed.

7.2 Management of Dicamba-Resistant Biotypes

Appropriate testing is critical in order to determine if a weed is resistant to dicamba. Contact your ~~Monsanto~~ Bayer representative to determine if resistance in any particular weed biotype has been confirmed in your area, or visit on the Internet www.iwilltakeaction.com ~~www.weedresistancemanagement.com~~ or www.weedscience.org.

Monsanto Company is not responsible for any losses that result from the failure of this product to control dicamba-resistant weed biotypes.

The following good agronomic practices can reduce the spread of confirmed dicamba-resistant biotypes:

- If a naturally occurring resistant biotype is present in your field, this product may be tank-mixed or applied sequentially with an appropriately labeled herbicide with a different mode of action to achieve control (read Section 8.0 for more information on tank mixing).
- Cultural and mechanical control practices (e.g., crop rotation or tillage) can also be used as appropriate.
- Scout treated fields after herbicide application and control weed escapes, including resistant biotypes, before they set seed.
- Thoroughly clean equipment, as practical, for all weed seeds before leaving fields known to contain resistant biotypes.

8.0 TANK MIXING INSTRUCTIONS

Auxin herbicides such as dicamba have the potential to volatilize in lower pH spray mixtures. Knowing the pH of your spray mixture and making the appropriate adjustments to avoid a low pH spray mixture (e.g., pH less than 5) can reduce the potential for volatilization to occur. Talk to your local agricultural consultant, extension agent, or Bayer representative for recommendations to prevent low pH spray mixtures.

XtendiMax® With VaporGrip® Technology may only be tank-mixed with products that have been tested and found not to adversely affect the offsite movement potential of XtendiMax® With VaporGrip® Technology. The applicator must check the website found at www.xtendimaxapplicationrequirements.com no more than 7 days before applying XtendiMax® With VaporGrip® Technology.

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DO NOT tank mix any product with XtendiMax® With VaporGrip® Technology unless:

1. The intended tank-mix product is identified on the list of tested products found at www.xtendimaxapplicationrequirments.com;
2. The intended products are not prohibited on either this label or the label of the tank mix product; and
3. All requirements and restrictions on www.xtendimaxapplicationrequirments.com are followed.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, MONSANTO MAKES NO RECOMMENDATION OR WARRANTY HEREIN REGARDING THE USE OF ANY PRODUCT THAT MAY APPEAR ON THE WEBSITE REFERENCED ABOVE, REGARDLESS OF WHETHER SUCH PRODUCT IS USED ALONE OR IN A TANK MIX WITH XTENDIMAX® WITH VAPORGRIP® TECHNOLOGY. BUYER AND ALL USERS ARE SOLELY RESPONSIBLE FOR ANY LACK OF PERFORMANCE, LOSS, OR DAMAGE IN CONNECTION WITH THE USE OR HANDLING OF ANY SUCH PRODUCT ALONE OR IN A TANK MIX WITH XTENDIMAX® WITH VAPORGRIP® TECHNOLOGY. See the section titled "LIMIT OF WARRANTY AND LIABILITY" herein for more information.

8.1 Compatibility Test for Mix Components

Before mixing components, always perform a compatibility jar test.

- For 15 gallons per acre spray volume, use 2.5 cups (591.5 mL) of water. For other spray volumes, adjust rates accordingly. Only use water from the intended source at the source temperature.
- Add components in the sequence indicated in the Mixing Order section below using 2 teaspoons for each pound or 1 teaspoon for each pint of labeled use rate per acre.
- Cap the jar and invert 10 cycles between component additions.
- When the components have all been added to the jar, let the solution stand for 15 minutes.
- Evaluate the solution for uniformity and stability. The spray solution should not have free oil on the surface; fine particles that precipitate to the bottom; or thick (clabbered) texture. If the spray solution is not compatible, repeat the compatibility test with the addition of a suitable compatibility agent. If the solution is then compatible, use the compatibility agent as directed on its label. If the solution is still incompatible, then do not mix the ingredients in the same tank.

8.2 Mixing Order

Only use approved tank mix products as directed on www.xtendimaxapplicationrequirements.com. Always read and follow label directions for all products in the tank mixture. It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. See section 8.0 for additional restrictions on tank mixing.

1. Ensure application and mixing equipment are clean and in proper working order
2. Water - Begin by agitating a thoroughly **clean sprayer** tank three-quarters full of clean water.
3. Agitation - Maintain constant agitation throughout mixing and application.
4. Drift Reducing Adjuvants (DRA)-(when applicable)
5. Inductor - If an inductor is used, rinse it thoroughly after each component has been added.
6. Products in PVA bags - Place any product contained in water-soluble PVA bags into the mixing tank. Wait until all water-soluble PVA bags have fully dissolved and the product is evenly mixed in the spray tank before continuing.

7. Water-dispersible products (dry flowables, wettable powders, suspension concentrates, or suspo-emulsions)
8. Water-soluble products (such as XtendiMax® With VaporGrip® Technology)
9. Emulsifiable concentrates (such as oil concentrate when applicable)
10. Water-soluble additives (when applicable)
11. Add remaining quantity of water.

Maintain constant agitation during application

8.3 Adjuvants, Drift Reducing Adjuvants, Surfactants, and Other Tank Mixed Products

See Section 8.0 TANK MIX INSTRUCTIONS for tank mixing instructions for adjuvants, drift reducing adjuvants, surfactants, and other tank mixed products.

9.0 APPLICATION EQUIPMENT AND TECHNIQUES

DO NOT APPLY THIS PRODUCT USING AERIAL SPRAY EQUIPMENT.

XtendiMax® With VaporGrip® Technology can be applied to actively growing weeds as broadcast, band, or spot spray applications using water as a carrier. For best results, treat weeds early when they are relatively small (less than 4 inches). Timely application to small weeds early in the season will improve control and reduce weed competition. Refer to Table 1 for XtendiMax® With VaporGrip® Technology application rates for control or suppression by weed type and growth stage. For crop-specific application timing and other details, refer to the CROP-SPECIFIC INFORMATION section of this label.

APPLY THIS PRODUCT USING PROPERLY MAINTAINED AND CALIBRATED EQUIPMENT CAPABLE OF DELIVERING THE REQUIRED VOLUMES.

Using a hooded sprayer or other drift reduction technology in combination with approved nozzles may further reduce drift potential.

Cultivation: Do not cultivate within 7 days after applying this product.

Table 1. XtendiMax® With VaporGrip® Technology Application Rates for Control or Suppression by Weed Type and Growth Stage
Use rate limitations are given in sections 10 (RESTRICTIONS), 11 (CROP-SPECIFIC INFORMATION), and 12 (CROPS WITH XTEND TECHNOLOGY)

Weed Type and Stage	Rate Per Acre	Weed Type and Stage	Rate Per Acre
Annual[1]		**Perennial**	
Small, actively growing	11 – 22 fluid ounces	Top growth suppression	11 – 22 fluid ounces
Established weed growth	22 – 33 fluid ounces	Top growth control and root suppression	22 – 44 fluid ounces
		Noted perennials (footnote 1 in Section 13.0).	44 fluid ounces
		Other perennials (without footnote 1 in Section 13.0)[3]	44 fluid ounces
Biennial		**Woody Brush & Vines**	
Rosette diameter 1 – 3 inches	11 – 22 fluid ounces	Top growth suppression	22 – 44 fluid ounces
		Top growth control[2,3]	44 fluid ounces

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Rosette diameter 3 inches or more Bolting	22 – 44 fluid ounces 44 fluid ounces	Stems and stem suppression[3]	44 fluid ounces

[1] Rates below 11 fluid ounces per acre may provide control or suppression but should typically be applied with other herbicides that are effective on the same species and biotype.
[2] Woody Species listed in section 13.0 may require tank mixes for adequate top growth control.
[3] DO NOT broadcast apply more than 44 ounces per acre for a single application and DO NOT exceed broadcast applications of more than 88 ounces per acre within the growing season when a sequential application is needed for control. Use the higher rate when treating dense vegetation or perennial weeds with established root growth. Perennials and Woody Species are defined as those listed in Section 13.0.

9.1 Spray Drift Management

Do not allow herbicide solution to mist, drip, drift or splash onto desirable vegetation because severe injury or destruction to desirable broadleaf plants could result.

The most effective way to reduce drift potential is to apply large droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if the application is made improperly, or under unfavorable environmental conditions (see the **"Temperature and Humidity"** and "**Temperature Inversions**" sections of this label).

9.1.1 Sprayer Setup

The following sprayer setup requirements for drift management must be followed:

- **Nozzle type.** The applicator must use an approved nozzle within a specified pressure range as found at www.xtendimaxapplicationrequirements.com when applying XtendiMax® With VaporGrip® Technology. Do not use any other nozzle and pressure combination not specifically listed on this website.

- **Spray Volume.** The applicator must apply this product in a **minimum of 15 gallons of spray solution per acre**. See Section 8.0 for information on approved tank mix products.

- **Equipment Ground Speed.** Do not exceed a **ground speed of 15 miles per hour**. Select a ground speed that will deliver the desired spray volume while maintaining the desired spray pressure, but slower speeds generally result in better spray coverage and deposition on the target area. Provided the applicator can maintain the required nozzle pressure, it is recommended that tractor speed is reduced to 5 miles per hour at field edges.

- **Spray boom Height.** Do not exceed a **boom height of 24 inches** above target pest or crop canopy. Excessive boom height will increase the drift potential.

- **Wind Speed.** Do not apply when wind speeds are **less than 3 MPH or greater than 10 MPH**. Only apply when wind speed at boom height is between 3 and 10 mph.

9.1.2 Temperature and Humidity

When making applications in low relative humidity or temperatures above 91 degrees Fahrenheit, set up equipment to produce larger droplets to compensate for evaporation (for example: increase orifice size

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and/or increase spray volume as directed on www.xtendimaxapplicationrequirements.com). Larger droplets have a lower surface to volume ratio and can be impacted less by temperature and humidity. Droplet evaporation is most severe when conditions are both hot and dry.

9.1.3 Temperature Inversions

Do not apply this product during a temperature inversion as the off-target movement potential is high. In general, temperature inversions are more likely during nighttime hours. Applications of this product may ONLY occur one hour after sunrise through two hours before sunset.

- During a temperature inversion, the atmosphere is very stable and vertical air mixing is restricted, which can cause small, suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light, variable winds common during inversions.
- Temperature inversions can be characterized by increasing temperatures with altitude and can be common on evenings and nights with limited cloud cover and light to no wind. Cooling of air at the earth's surface takes place and warmer air is trapped above it. Temperature inversions can begin to form as the sun sets and often continue into the morning.
- Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.
- The inversion will typically dissipate with increased winds (above 3 miles per hour) or at sunrise when the surface air begins to warm (generally 3°F from morning low).

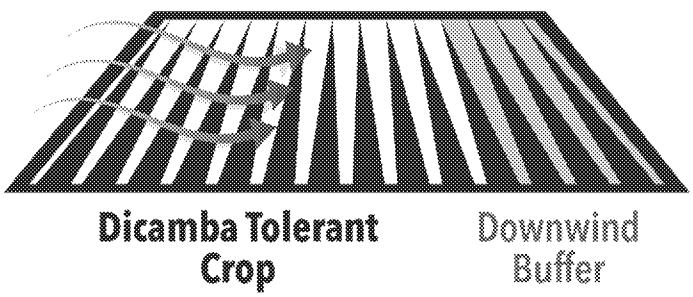
9.1.4 Buffer Requirements and Protection of Sensitive Crops

Do not apply under circumstances where drift may occur to food, forage, or other plantings that might be damaged or the crops rendered unfit for sale, use, or consumption.

9.1.4.a. **Buffer Requirement**

The applicator **must always maintain** a 110 foot downwind buffer (when applying up to 22 fluid ounces of this product per acre) or a 220 foot downwind buffer (when applying greater than 22 up to 44 fluid ounces of this product per acre) between the last treated row and the nearest downwind field edge (in the direction the wind is blowing).

If you have questions regarding Buffer Requirement contact Bayer at 1-844-RRXTEND prior to application.



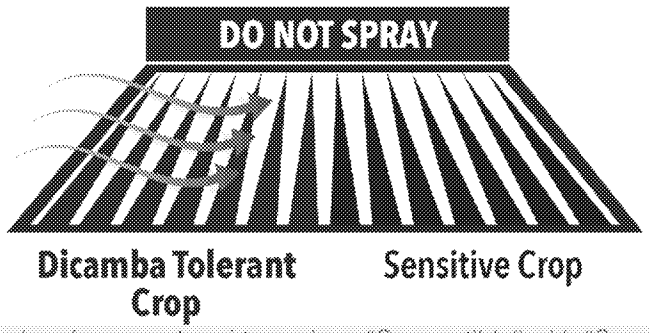
The following areas may be included in the buffer distance calculation when directly adjacent to the treated field edges:

- Roads, paved or gravel surfaces, mowed and/or managed areas adjacent to field such as rights of way.
- Planted agricultural fields containing: corn, dicamba tolerant cotton, dicamba tolerant soybean, sorghum, proso millet, small grains and sugarcane. If the applicator intends to include such crops as dicamba tolerant cotton and/or dicamba tolerant soybeans in the buffer distance calculation, the applicator must confirm the crops are in fact dicamba tolerant.
- Agricultural fields that have been prepared for planting
- Areas covered by the footprint of a building, silo, or other man made structure with walls and or roof.

9.1.4.b. **Sensitive Crops**

DO NOT APPLY this product when the wind is blowing toward adjacent non-dicamba tolerant sensitive crops; this includes **NON-DICAMBA TOLERANT SOYBEAN AND COTTON.**

It is important for the applicator to be aware that wind direction may vary during the application. If wind direction shifts such that the wind is blowing toward adjacent non-dicamba tolerant sensitive crops, the applicator must cease the application.



[Figure has been updated to replace "Susceptible" with "Sensitive"]

Before making an application, consult a sensitive crop registry (such as FieldWatch); and survey adjacent fields and confirm the crops/areas surrounding the field prior to application. At a minimum, records must include the name of the sensitive crop registry and the date it was consulted and documentation of adjacent crops/areas and the date the survey was conducted.

Sensitive crops include, but are not limited to non-dicamba tolerant soybeans and cotton, tomatoes and other fruiting vegetables (EPA crop group 8), fruit trees, cucurbits (EPA crop group 9), grapes, beans, flowers, ornamentals, peas, potatoes, sunflower, tobacco, other broadleaf plants, and including plants in a greenhouse. Severe injury or destruction could occur if any contact between this product and these plants occurs.

If you have questions regarding sensitive crop registries contact Bayer at 1-844-RRXTEND prior to application.

9.1.5 Application Awareness

AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR.

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The interaction of equipment and weather related factors must be monitored to maximize performance and on-target spray deposition. The applicator is responsible for considering all of these factors when making a spray decision. The applicator is responsible for compliance with state and local pesticide regulations, including any state or local pesticide drift regulations.

9.2 Ground Application (Banding)

When applying XtendiMax® With VaporGrip® Technology by banding, determine the amount of herbicide and water volume needed using the following formula:

$$\frac{\text{Bandwidth in inches}}{\text{Row width in inches}} \times \text{Broadcast rate per acre} = \text{Banding herbicide rate per acre}$$

$$\frac{\text{Bandwidth in inches}}{\text{Row width in inches}} \times \text{Broadcast volume per acre} = \text{Banding water volume per acre}$$

9.3 Ground Application (Broadcast)

Water Volume: Use a **minimum of 15 gallons** of spray solution per broadcast acre for optimal performance. Use 20 gallons per acre when treating dense or tall vegetation.

Application Equipment: Select nozzles (refer to section 9.1.1 Nozzle type of this product label) designed to produce minimal amounts of fine spray particles. Spray with nozzles as close to the weeds as practical for good weed coverage.

Using a hooded sprayer or other drift reduction technology in combination with approved nozzles may further reduce drift potential.

9.4 Ground Application (Wipers)

XtendiMax® With VaporGrip® Technology may be applied through wiper application equipment to control or suppress actively growing broadleaf weeds, brush and vines. Use a solution containing 1 part XtendiMax® With VaporGrip® Technology to 1 part water. Do not apply greater than 1 lb dicamba acid equivalent (~~1 quart44 fluid ounces~~ of this product) per acre per application. Do not contact desirable vegetation with herbicide solution. Wiper application may be made to crops (including pastures) and non-cropland areas described in this label except for non-dicamba-tolerant cotton, sorghum, and non-dicamba-tolerant soybean.

9.5 Proper Spray System Equipment Cleanout

You must ensure that the spray system used to apply this product is clean before using this product.

Failure to properly clean the entire spray system can result in inadvertent contamination of the spray system. Small quantities of dicamba may cause injury to non-dicamba tolerant soybeans and other sensitive crops (see Section 9.1.4 of this label for more information).

Inadvertent contamination can also occur in equipment used for bulk product handling and mixing prior to use in the spray system. Care should be taken to reduce contamination not only in the spray system but in any equipment used to transfer or deliver product. For example, bulk handling and mixing equipment containing this product should be segregated when possible to reduce potential for cross-contamination.

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Consider using block and check valves to avoid backflow during transfer. Piping should be reviewed to ensure there not potential for product build-up. Dedicated nurse trucks and tender equipment should be used when possible.

Clean equipment immediately after using this product, using a triple rinse procedure as follows:

1. After spraying, drain the sprayer (including boom and lines) immediately. Do not allow the spray solution to remain in the spray boom lines overnight prior to flushing.
2. Flush tank, hoses, boom and nozzles with clean water. If equipped, open boom ends and flush.
3. Inspect and clean all strainers, screens and filters.
4. Prepare a cleaning solution with a commercial detergent or sprayer cleaner or ammonia according to the manufacturer's directions.
5. Take care to wash all parts of the tank, including the inside top surface. Start agitation in the sprayer and thoroughly recirculate the cleaning solution for at least 15 minutes. All visible deposits must be removed from the spraying system.
6. Flush hoses, spray lines and nozzles for at least 1 minute with the cleaning solution.
7. Remove nozzles, screens and strainers and clean separately in the cleaning solution after completing the above procedures.
8. Drain pump, filter and lines.
9. Rinse the complete spraying system with clean water.
10. Clean and wash off the outside of the entire sprayer and boom.
11. All rinse water must be disposed of in compliance with local, state, and federal guidelines.

10.0 ADDITIONAL RESTRICTIONS

Maximum Application Rates: The maximum application or use rates stated throughout this label are given in units of volume (fluid ounces or quarts) of this product per acre. However, the maximum allowed application rates apply to this product combined with the use of any and all other herbicides containing the active ingredients dicamba, whether applied separately or as a tank mixture, on a basis of total pounds of dicamba (acid equivalents) per acre. If more than one dicamba-containing product is applied to the same site within the same year, you must ensure that the total use of dicamba (pounds acid equivalents) does not exceed 2 pounds/A per year from all applications. See the INGREDIENTS section of this label for necessary product information.

Maximum seasonal use rate: Refer to Table 2. Crop-Specific Restrictions for crop-specific maximum seasonal use rates. Do not exceed 88 fluid ounces of XtendiMax® With VaporGrip® Technology (2 pounds acid equivalent) per acre, per year.

Preharvest Interval (PHI): Refer to the CROP-SPECIFIC INFORMATION section for preharvest intervals.

Restricted Entry Interval (REI): 24 hours

Crop Rotational Restrictions

No rotational cropping restrictions apply when rotating to Roundup Ready 2 Xtend® Soybeans, XtendFlex® Soybeans, or cotton seed with XtendFlex® Technology (including Bollgard® 3 XtendFlex® Cotton, Bollgard II® XtendFlex® Cotton, or XtendFlex® Cotton). For other crops the interval between application and planting rotational crop is given below. When counting days from the application of this product, do not count days when the ground is frozen. Planting at intervals less than specified below may result in crop injury. Moisture is essential for the degradation of this herbicide in soil. If dry weather prevails, use cultivation to allow herbicide contact with moist soil.

Planting/replanting restrictions at application rates of 33 fluid ounces of this product per acre per season or less: Follow the planting restrictions in the directions for use for Preplant application in the Crop Specific Information section of this label. For corn, cotton (except cotton seed with XtendFlex® Technology), sorghum, and soybean (except Roundup Ready 2 Xtend® Soybean and XtendFlex® Soybean), follow the planting restrictions in the directions for use for preplant application in **Section 11. Crop-Specific Information** of this label. Do not plant barley, oat, wheat, and other grass seedings for 15 days for every 11 fluid ounces of this product applied per acre east of the Mississippi River and 22 days for every 11 fluid ounces per acre applied west of the Mississippi River. No planting restrictions apply beyond 120 days after application of this product.

Planting/replanting restrictions at application rates of more than 33 fluid ounces and up to 88 fluid ounces of this product per acre per season: Wait a minimum of 120 days after application of this product before planting corn, sorghum and cotton (except cotton seed with XtendFlex® Technology) east of the Rocky Mountains and before planting all other crops (except Roundup Ready 2 Xtend® Soybean and XtendFlex® Soybean) grown in areas receiving 30 inches or more rainfall annually. Wait a minimum of 180 days before planting crops in areas with less than 30 inches of annual rainfall. Wait a minimum of 30 days for every 22 fluid ounces of this product applied per acre before planting barley, oat, wheat, and other grass seedings east of the Mississippi River and 45 days for every 22 fluid ounces of this product applied per acre west of the Mississippi River.

Table 2. Crop-Specific Restrictions[1]

Crop	Maximum Rate Per Acre Per Application (fl oz)	Maximum Rate Per Acre Per Season (fl oz)	Livestock Grazing or Feeding
Asparagus	22	22	Yes
Barley; Fall Spring	11 11	16.5 15	Yes
Conservation Reserve Program (CRP)	44	88	Yes
Corn	22	33	Yes[2]
Cotton	11	11	Yes
Cotton with XtendFlex Technology	44	88	Yes
Fallow Ground	44	88	Yes
Grass grown for seed	44	88	Yes

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Oats	5.5	5.5	Yes
Pastureland	44	44	Yes
Proso Millet	5.5	5.5	Yes
Small grains grown for grass, forage, fodder, hay and/or pasture	22	22	Yes
Sorghum	11	22	Yes
Soybean	44	44	Yes
Roundup Ready 2 Xtend Soybean and XtendFlex Soybean	44	88	Yes
Sugarcane	44	88	Yes
Triticale	5.5	5.5	Yes
Sod farms and farmstead turf	44	44	Yes
Wheat	11	22	Yes
[1]Refer to section **11. CROP-SPECIFIC INFORMATION** and section **12. CROPS WITH XTEND TECHNOLOGY** for more details. [2]Once the crop reaches the ensilage (milk) stage or later in maturity			

11.0 CROP-SPECIFIC INFORMATION

Read Sections: 8.0 for Tank Mixing Instructions and 9.1.4 for Buffer Requirements and Sensitive Crops for information on tank mixing, buffer requirements, and sensitive crops.

11.1 Asparagus

Apply XtendiMax® With VaporGrip® Technology to emerged and actively growing weeds in 40 - 60 gallons of diluted spray per treated acre immediately after cutting the field, but at least 24 hours before the next cutting. Multiple applications may be made per growing season.

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If spray contacts emerged spears, crooking (twisting) of some spears may result. If such crooking occurs, discard affected spears.

Rates: Apply 11-22 fluid ounces of XtendiMax® With VaporGrip® Technology to control annual sowthistle, black mustard, Canada and Russian thistle, and redroot pigweed (carelessweed).

Apply 22 fluid ounces of XtendiMax® With VaporGrip® Technology to control common chickweed, field bindweed, nettleleaf goosefoot, and wild radish. Up to 2 applications may be made per growing season. Do not exceed a total of 22 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre, per crop year.

Do not harvest prior to 24 hours after treatment.

[Optional: Do not use in the Coachella Valley of California]

11.2 Between Crop Applications

Preplant Directions (Postharvest, Fallow, Crop Stubble, Set-Aside) for Broadleaf Weed Control:

XtendiMax® With VaporGrip® Technology can be applied either postharvest in the fall, spring, or summer during the fallow period or to crop stubble/set-aside acres. Apply XtendiMax® With VaporGrip® Technology as a broadcast or spot treatment to emerged and actively growing weeds after crop harvest (postharvest) and before a killing frost or in the fallow cropland or crop stubble the following spring or summer.

See the "Crop Rotational Restrictions" in Section 10 of this label for the recommended interval between application and planting to prevent crop injury.

Rates and Timings:

Apply 5.5 – 44 fluid ounces of XtendiMax® With VaporGrip® Technology per acre. Refer to Table 1 to determine use rates for specific targeted weed species. For best performance, apply XtendiMax® With VaporGrip® Technology when annual weeds are less than 4 inches tall, when biennial weeds are in the rosette stage and to perennial weed regrowth in late summer or fall following a mowing or tillage treatment. The most effective control of upright perennial broadleaf weeds such as Canada thistle and Jerusalem artichoke occurs if XtendiMax® With VaporGrip® Technology is applied when the majority of weeds have at least 4 – 6 inches of regrowth or for weeds such as field bindweed and hedge bindweed that are in or beyond the full bloom stage.

Avoid disturbing treated areas following application. Treatments may not kill weeds that develop from seed or underground plant parts such as rhizomes or bulblets, after the effective period for XtendiMax® With VaporGrip® Technology. For seedling control, a follow-up program or other cultural practices could be instituted. For small grain in-crop uses of XtendiMax® With VaporGrip® Technology, refer to the small grain section for details.

11.3 Conservation Reserve Program (CRP)

XtendiMax® With VaporGrip® Technology is recommended for use on both newly seeded and established grasses grown in Conservation Reserve or federal Set-Aside Programs. Treatments of XtendiMax® With VaporGrip® Technology will injure or may kill alfalfa, clovers, lespedeza, wild winter peas, vetch, and other legumes.

<u>Newly Seeded Areas</u>

XtendiMax® With VaporGrip® Technology may be applied either preplant or postemergence to newly seeded grasses or small grains such as barley, oats, rye, sudanqrass, wheat, or other grain species grown as a cover crop. Postemergence applications may be made after seedling grasses exceed the 3-

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leaf stage. Rates of XtendiMax® With VaporGrip® Technology greater than 22 fluid ounces per treated acre may severely injure newly seeded grasses.

Preplant applications may injure new seedlings if the interval between application and grass planting is less than 45 days per 22 fluid ounces of XtendiMax® With VaporGrip® Technology applied per treated acre west of the Mississippi River or 20 days per 22 fluid ounces applied east of the Mississippi River.

Established Grass Stands

Established grass stands are perennial grasses planted one or more seasons prior to treatment. Certain species (bentgrass, carpetgrass, smooth brome, buffalograss, or St. Augustinegrass) may be injured when treated with more than 22 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre.

When applied at recommended rates, XtendiMax® With VaporGrip® Technology will control many annual and biennial weeds and provide control or suppression of many perennial weeds.

Rates and Timings

Apply 5.5 - 44 fluid ounces of XtendiMax® With VaporGrip® Technology per acre. Refer to **Table 1** for rates based on target weed species. Retreatments may be made as needed; however, do not exceed a total of 88 fluid ounces (4 pints) of XtendiMax® With VaporGrip® Technology per acre per year.

11.4 Corn (Field, Pop, Seed, And Silage)

Direct contact of XtendiMax® With VaporGrip® Technology with corn seed must be avoided. If corn seeds are less than 1.5 inches below the surface, delay application until corn has emerged.

Applications of XtendiMax® With VaporGrip® Technology to corn during periods of rapid growth may result in temporary leaning. Corn will usually become erect within 3 to 7 days. Cultivation should be delayed until after corn is growing normally to avoid breakage.

Corn may be harvested or grazed for feed once the crop has reached the ensilage (milk) stage or later in maturity.

Up to 2 applications of XtendiMax® With VaporGrip® Technology may be made during a growing season. Sequential applications must be separated by 2 weeks or more.

Do not apply XtendiMax® With VaporGrip® Technology to seed corn or popcorn without first verifying with your local seed corn company (supplier) the selectivity of XtendiMax® With VaporGrip® Technology on your inbred line or variety of popcorn. This precaution will help avoid potential injury of sensitive varieties.

Avoid using crop oil concentrates after crop emergence as crop injury may result. Use crop oil concentrates only in dry conditions when corn is less than 5 inches tall when applying XtendiMax® With VaporGrip® Technology.

Use of sprayable fluid fertilizer as the carrier is not recommended for applications of XtendiMax® With VaporGrip® Technology made after corn emergence.

XtendiMax® With VaporGrip® Technology is not registered for use on sweet corn.

Preplant and Preemergence Application in No-Tillage Corn:

Rates: Apply 22 fluid ounces of XtendiMax® With VaporGrip® Technology per acre on medium- or fine-textured soils containing 2.5% or greater organic matter. Use 11 fluid ounces per acre on coarse soils (sand, loamy sand, and sandy loam) or medium- and fine-textured soils with less than 2.5% organic matter.

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Timing: XtendiMax® With VaporGrip® Technology can be applied to emerging weeds before, during, or after planting a corn crop. When planting into a legume sod (e.g., alfalfa or clover), apply XtendiMax® With VaporGrip® Technology after 4 – 6 inches of regrowth has occurred

Preemergence Application in Conventional or Reduced Tillage Corn:

Rates: Apply 22 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre on medium- or fine-textured soils containing 2.5% organic matter or more. Do not apply to coarse textured soils (sand, loamy sand, or sandy loam) of any soil with less than 2.5% organic matter until after corn emergence (See Early Postemergence uses below).

Timing: XtendiMax® With VaporGrip® Technology may be applied after planting and prior to corn emergence. Pre-emergence application of XtendiMax® With VaporGrip® Technology does not require mechanical incorporation to become active. A shallow mechanical incorporation is recommended if application is not followed by adequate rainfall or sprinkler irrigation. Avoid tillage equipment (e.g., drags, harrows) which concentrates treated soil over seed furrow as seed damage could result.

Preemergence control of cocklebur, jimsonweed, and velvetleaf may be reduced if conditions such as low temperature or lack of soil moisture cause delayed or deep germination of weeds.

Early Postemergence Application in All Tillage Systems:

Rates: Apply 22 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre. Reduce the rate to 11 fluid ounces per treated acre if corn is growing on coarse textured soils (sand, loamy sand, and sandy loam).

Timing: Apply between corn emergence and the 5-leaf stage or 8 inches tall, whichever occurs first. Refer to Late Postemergence Applications if the sixth true leaf is emerging from whorl or corn is greater than 8 inches tall.

Late Postemergence Application:

Rate: Apply 11 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre.

Timing: Apply XtendiMax® With VaporGrip® Technology from 8 - 36 inch tall corn or 15 days before tassel emergence, whichever comes first. For best performance, apply when weeds are less than 3 inches tall.

Apply directed spray when corn leaves prevent proper spray.

11.5 Cotton

For directions for use with crops with Xtend Technology see the "CROPS WITH XTEND TECHNOLOGY" section of this label.

Preplant Application:

Apply up to 11 fluid ounces of XtendiMax® With VaporGrip® Technology per acre to control emerged broadleaf weeds prior to planting cotton in conventional or conservation tillage systems.

For best performance, apply XtendiMax® With VaporGrip® Technology when weeds are in the 2 - 4 leaf stage and rosettes are less than 2 inches across.

Following application of XtendiMax® With VaporGrip® Technology and a minimum accumulation of 1 inch of rainfall or overhead irrigation, allow a minimum of 21 days between treatment and planting per application of 11 fluid ounces per acre or less. This plant back interval must be observed prior to planting cotton.

Do not apply preplant to cotton west of the Rockies.

Do not make XtendiMax® With VaporGrip® Technology preplant applications to cotton in geographic areas with average annual rainfall less than 25 inches.

If applying a spring preplant treatment following application of a fall preplant (postharvest) treatment, then the combination of both treatments may not exceed 2 pounds acid equivalent per acre.

11.6 Grass Grown For Seed

Apply 11 - 22 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre on seedling grass after the crop reaches the 3 -5 leaf stage. Apply up to 44 fluid ounces of XtendiMax® With VaporGrip® Technology on well-established perennial grass. For best performance, apply XtendiMax® With VaporGrip® Technology when weeds are in the 2 - 4 leaf stage and rosettes are less than 2 inches across. Use the higher level of listed rate ranges when treating more mature weeds or dense vegetative growth.

To suppress annual grasses such as brome (downy and ripgut), rattail fescue, and windgrass, apply up to 44 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre in the fall or late summer after harvest and burning of established grass seed crops. Applications should be made immediately following the first irrigation when the soil is moist and before weeds have more than 2 leaves.

Do not apply XtendiMax® With VaporGrip® Technology after the grass seed crop begins to joint.

Refer to the Pasture, Hay, Rangeland, and General Farmstead section for grazing and feeding restrictions.

11.7 Proso Millet

For use only within Colorado, Nebraska, North Dakota, South Dakota, [Optional: **and Wyoming].**

XtendiMax® With VaporGrip® Technology combined with an appropriate tank-mix partner will provide control or suppression of the annual broadleaf weeds listed in **Section 13.**

11.8 Pasture, Hay, Rangeland, And General Farmstead (Noncropland)

XtendiMax® With VaporGrip® Technology is recommended for use on pasture, hay, rangeland, and general farmstead (non-cropland) (including fencerows and non-irrigation ditch banks) for control or suppression of broadleaf weed and brush species listed in Section 12.

XtendiMax® With VaporGrip® Technology may also be applied to non-cropland areas to control broadleaf weeds in noxious weed control programs, districts, or areas including broadcast or spot treatment of roadsides and highways, utilities, railroad, and pipeline rights-of-way. Noxious weeds must be recognized at the state level, but programs may be administered at state, county, or other level.

XtendiMax® With VaporGrip® Technology uses described in this section also pertain to grasses and small grains (forage sorghum, rye, sudangrass, or wheat) grown for grass, forage, fodder, hay and/or pasture use only. Grasses and small grains not grown for grass, forage, fodder, hay and/or pasture must comply with crop-specific uses in this label. Some perennial weeds may be controlled with lower rates of XtendiMax® With VaporGrip® Technology (refer to **Table 1**).

Rates and Timings

Refer to **Table 1** for rate selection based on targeted weed or brush species.

Rates above 44 fluid ounces of XtendiMax® With VaporGrip® Technology per acre are for spot treatments only. Spot treatment is defined as no more than a total of 1000 square feet of treated area per acre. Do not broadcast apply more than 44 fluid ounces per acre.

Retreatments may be made as needed; however, do not exceed a total of 44 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre during a growing season.

Grass grown for hay requires a minimum of 7-days between treatment and harvest.

Crop-Specific Restrictions

Do not apply more than 22 fluid ounces of XtendiMax® With VaporGrip® Technology per acre to small grains grown for pasture.

Newly seeded areas may be severely injured if more than 22 fluid ounces of XtendiMax® With VaporGrip® Technology is applied per acre.

Established grass crops growing under stress can exhibit various injury symptoms that may be more pronounced if herbicides are applied. Bentgrass, carpetgrass, buffalograss, and St. Augustine grass may be injured if more than 22 fluid ounces of XtendiMax® With VaporGrip® Technology is applied per acre. Usually colonial bent grasses are more tolerant than creeping types. Velvet grasses are most easily injured. Treatments will kill or injure alfalfa, clovers, lespedeza, wild winter peas, vetch, and other legumes.

Table 3 lists the timing restrictions for grazing or harvesting hay from treated fields. There are no grazing restrictions for animals other than lactating dairy animals.

Table 3. Timing Restrictions for Lactating Dairy Animals Following Treatment

XtendiMax® With VaporGrip® Technology Rate per Treated Acre (fluid ounces)	Days Before Grazing (days)	Days Before Hay Harvest (days)
Up to 22	7	37
Up to 44	21	51

- **Spot Treatments:** XtendiMax® With VaporGrip® Technology may be applied to individual clumps or small areas of undesirable vegetation using handgun or similar types of application equipment. Apply diluted sprays to allow complete wetting (up to runoff) of foliage and stems.

Cut Surface Treatments:

XtendiMax® With VaporGrip® Technology may be applied as a cut surface treatment for control of unwanted trees and prevention of sprouts of cut trees.

Rate: Mix 1 part XtendiMax® With VaporGrip® Technology with 1 - 3 parts water to create the application solution. Use the lower dilution rate when treating difficult-to-control species.

- **For Frill or Girdle Treatments**: Make a continuous cut or a series of overlapping cuts using an axe to girdle tree trunk. Spray or paint the cut surface with the solution.
- **For Stump Treatments:** Spray or paint freshly cut surface with the water mix. The area adjacent to the bark should be thoroughly wet.

Applications For Control of Dormant Multiflora Rose:

XtendiMax® With VaporGrip® Technology can be applied when plants are dormant as an undiluted spot treatment directly to the soil or as a Lo-Oil basal bark treatment using an oil-water emulsion solution.

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- **Spot treatments:** Spot treatment applications of XtendiMax® With VaporGrip® Technology should be applied directly to the soil as close as possible to the root crown but within 6 - 8 inches of the crown. On sloping terrain, apply XtendiMax® With VaporGrip® Technology to the uphill side of the crown. Do not apply when snow or water prevents applying XtendiMax® With VaporGrip® Technology directly to the soil. The use rate of XtendiMax® With VaporGrip® Technology depends on the canopy diameter of the multiflora rose.

  Examples: Use 0.34, 1.38, or 3.23 fluid ounces of XtendiMax® With VaporGrip® Technology respectively, for 5, 10, or 15 feet canopy diameters.

- **Lo-Oil basal bark treatments:** For Lo-Oil basal bark treatments, apply XtendiMax® With VaporGrip® Technology to the basal stem region from the ground line to a height of 12 - 18 inches. Spray until runoff, with special emphasis on covering the root crown. For best results, apply XtendiMax® With VaporGrip® Technology when plants are dormant. Do not apply after bud break or when plants are showing signs of active growth. Do not apply when snow or water prevents applying XtendiMax® With VaporGrip® Technology to the ground line.

  To prepare approximately 2 gallons of a Lo-Oil spray solution:

  1) Combine 1.5 gallons of water, 1 ounce of emulsifier, 22 fluid ounces of XtendiMax® With VaporGrip® Technology, and 2.5 pints of No. 2 diesel fuel.

  2) Adjust the amounts of materials used proportionately to the amount of final spray solution desired.

  Do not exceed 8 gallons of spray solution mix applied per acre, per year.

11.9 SMALL GRAINS

11.9.1 Small Grains Not Underseeded To Legumes (fall- and spring-seeded barley, oat, triticale and wheat)

Refer to the specific crop sections below for use rates. When treating difficult to control weeds such as kochia, wild buckwheat, cow cockle, prostrate knotweed, Russian thistle, and prickly lettuce or when dense vegetative growth occurs, use the 4.12 – 5.5 fluid ounces of XtendiMax® With VaporGrip® Technology per acre.

Timings: Apply XtendiMax® With VaporGrip® Technology before, during, or after planting small grains. See specific small grain crop uses below for maximum crop stage. For best performance, apply XtendiMax® With VaporGrip® Technology when weeds are in the 2 - 3 leaf stage and rosettes are less than 2 inches across. Applying XtendiMax® With VaporGrip® Technology to small grains during periods of rapid growth may result in crop leaning. This condition is temporary and will not reduce crop yields.

Restrictions for small grain areas that are grazed or cut for hay are indicated in **Table 3** in Pasture, Hay, Rangeland, and General Farmstead section of this label.

11.9.2 Small Grains: Barley (fall- and spring-seeded)

Early season applications:

Apply 2.75 – 5.5 fluid ounces of XtendiMax® With VaporGrip® Technology to fall-seeded barley prior to the jointing stage. Apply 2.75 – 4.12 fluid ounces of XtendiMax® With VaporGrip® Technology before spring-seeded barley exceeds the 4-leaf stage.

Note: For spring barley varieties that are seeded during the winter months or later, follow the rates and timings given for spring-seeded barley.

Preharvest applications:

XtendiMax® With VaporGrip® Technology can be used to control weeds that may interfere with harvest of fall and spring-seeded barley. Apply 11 fluid ounces of XtendiMax® With VaporGrip® Technology per acre as a broadcast or spot treatment to annual broadleaf weeds when barley is in the hard dough stage and the green color is gone from the nodes (joints) of the stern. Best results will be obtained if application can be made when weeds are actively growing, but before weeds canopy.

Allow a minimum of 7 days between treatment and harvest. Do not use preharvest-treated barley for seed unless a germination test is performed on the seed with an acceptable result of 95% germination or better.

[Optional: Do not make preharvest applications in California.]

11.9.3 Small Grains: Oats (fall- and spring-seeded)

Early season applications:

Apply 2.75 – 5.5 fluid ounces of XtendiMax® With VaporGrip® Technology per acre to fall-seeded oat prior to the jointing stage. Apply 2.75 – 5.5 fluid ounces of XtendiMax® With VaporGrip® Technology before spring-seeded oat exceed the 5-leaf stage.

Do not tank mix XtendiMax® With VaporGrip® Technology with 2,4-D in oat.

Allow a minimum of 7 days between treatment and harvest.

11.9.4 Small Grains: Triticale (fall- and spring-seeded)

Early season applications:

Apply 2.75 – 5.5 fluid ounces of XtendiMax® With VaporGrip® Technology to triticale.

Early season applications to fall-seeded triticale must be made prior to the jointing stage.

Early season applications to spring-seeded triticale must be made before triticale reaches the 6-leaf stage.

11.9.5 Small Grains: Wheat (fall- and spring-seeded)

Early Season Applications:

Apply 2.75 – 5.5 fluid ounces of XtendiMax® With VaporGrip® Technology to wheat unless using one of the fall-seeded wheat specific programs below.

Early season applications to fall-seeded wheat must be made prior to the jointing stage.

Early season applications to spring-seeded wheat must be made before wheat exceeds the 6-leaf stage.

Early developing wheat varieties such as TAM 107, Madison, or Wakefield must receive application between early tillering and the jointing stage. Care should be taken in staging these varieties to be certain that the application occurs prior to the jointing stage.

Specific use programs for fall-seeded wheat only:

[Optional: XtendiMax® With VaporGrip® Technology may be used at 8.25 fluid ounces on fall-seeded wheat in Western Oregon as a spring application only.] In Colorado, Kansas, New Mexico, Oklahoma, and Texas, up to 11 fluid ounces of XtendiMax® With VaporGrip® Technology may be applied on fall-seeded wheat after it exceeds the 3-leaf stage for suppression of perennial weeds, such as field bindweed. Applications may be made in the fall following a frost but before a killing freeze.

Preharvest applications:

XtendiMax® With VaporGrip® Technology can be used to control weeds that may interfere with harvest of wheat. Apply 11 fluid ounces XtendiMax® With VaporGrip® Technology per acre as a broadcast or spot treatment to annual broadleaf weeds when wheat is in the hard dough stage and the green color is gone from the nodes (joints) of the stem. Best results will be obtained if application can be made when weeds are actively growing but before weeds canopy.

Allow a minimum of 7 days between treatment and harvest. Do not use preharvest-treated wheat for seed unless a germination test is performed on the seed with an acceptable result of 95% germination or better.

[Optional: Do not make preharvest applications in California.]

11.10 Sorghum

XtendiMax® With VaporGrip® Technology may be applied preplant, postemergence, or preharvest in sorghum to control many annual broadleaf weeds and to reduce competition from established perennial broadleaf weeds, as well as control their seedlings.

Do not graze or feed treated sorghum forage or silage prior to mature grain stage. If sorghum is grown for pasture or hay, refer to Pasture, Hay, Rangeland, and General Farmstead section of this label for specific grazing and feeding restrictions.

Do not apply XtendiMax® With VaporGrip® Technology to sorghum grown for seed production.

Preplant Application:

Up to 11 fluid ounces of XtendiMax® With VaporGrip® Technology may be applied per acre if applied at least 15 days before sorghum planting.

Postemergence Application:

Up to 11 fluid ounces of XtendiMax® With VaporGrip® Technology per acre may be applied after sorghum is in the spike stage (all sorghum emerged) but before sorghum is 15 inches tall. For best performance, apply XtendiMax® With VaporGrip® Technology when the sorghum crop is in the 3 - 5 leaf stage and weeds are small (less than 3 inches tall). Use drop pipes (drop nozzles) if sorghum is taller than 8 inches. Keep the spray off the sorghum leaves and out of the whorl to reduce the likelihood of crop injury and to improve spray coverage of weed foliage. Applying XtendiMax® With VaporGrip® Technology to sorghum during periods of rapid growth may result in temporary leaning of plants or rolling of leaves. These effects are usually outgrown within 10 - 14 days. Delay harvest until 30 days after a preharvest treatment.

Preharvest uses in Texas and Oklahoma only: Up to 11 fluid ounces of XtendiMax® With VaporGrip® Technology per acre may be applied for weed suppression any time after the sorghum has reached the soft dough stage. An agriculturally approved surfactant may be used to improve performance (read Section 8.0 for tank mixing instructions). Delay harvest until 30 days after a preharvest treatment.

Split Application:

XtendiMax® With VaporGrip® Technology may be applied in split applications: preplant followed by postemergence or preharvest; or postemergence followed by preharvest. Do not exceed 11 fluid ounces per acre, per application or a total of 22 ounces per acre, per season.

11.11 Soybean

For directions for use with crops with Xtend Technology see the "CROPS WITH XTEND TECHNOLOGY" section of this label.

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Preplant Applications:

Apply 5.5 -22 fluid ounces of XtendiMax® With VaporGrip® Technology per acre to control emerged broadleaf weeds prior to planting soybeans. Do not exceed 22 fluid ounces of XtendiMax® With VaporGrip® Technology per acre in a spring application prior to planting soybeans.

Following application of XtendiMax® With VaporGrip® Technology and a minimum accumulation of 1 inch rainfall or overhead irrigation, allow a minimum of 14 days between treatment and planting for applications of 11 fluid ounces per acre or less, and allow a minimum of 28 days between treatment and planting for applications of 22 fluid ounces per acre. These plant back intervals must be observed prior to planting soybeans or crop injury may occur.

Do not make XtendiMax® With VaporGrip® Technology preplant applications to soybeans in geographic areas with average annual rainfall less than 25 inches.

Preharvest Applications:

XtendiMax® With VaporGrip® Technology can be used to control many annual and perennial broadleaf weeds and control or suppress many biennial and perennial broadleaf weeds in soybean prior to harvest (refer to **Section 10**). Apply 11 - 44 fluid ounces of XtendiMax® With VaporGrip® Technology per acre as a broadcast or spot treatment to emerged and actively growing weeds after soybean pods have reached mature brown color and at least 75% leaf drop has occurred.

Do not harvest soybeans until 7 days after application.

Treatments may not kill weeds that develop from seed or underground plant parts, such as rhizomes or bulblets, after the effective period for XtendiMax® With VaporGrip® Technology. For seedling control, a follow-up program or other cultural practice could be instituted.

Do not use preharvest-treated soybean for seed unless a germination test is performed on the seed with an acceptable result of 95% germination or better.

Do not feed soybean fodder or hay following a preharvest application of XtendiMax® With VaporGrip® Technology.

[Optional: Do not make preharvest applications in California.]

11.12 Sugarcane

Apply XtendiMax® With VaporGrip® Technology for control of annual, biennial, or perennial broadleaf weeds listed in Section 11. Apply 11 - 33 fluid ounces of XtendiMax® With VaporGrip® Technology per acre for control of annual weeds, 22 - 44 fluid ounces for control of biennial weeds, and 44 fluid ounces for control or suppression of perennial weeds.

Use the higher level of listed rate ranges when treating dense vegetative growth.

A single retreatment may be made as needed, however, do not exceed a total of 88 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre during a growing season.

Timing: XtendiMax® With VaporGrip® Technology may be applied to sugarcane any time after weeds have emerged, but before the close-in stage of sugarcane. Applications of 44 fluid ounces of XtendiMax® With VaporGrip® Technology per acre made over the top of actively growing sugarcane may result in crop injury.

When possible, direct the spray beneath the sugarcane canopy to minimize the likelihood of crop injury. Using directed sprays will also help maximize the spray coverage of weed foliage.

Allow a minimum of 87 days between treatment and harvest.

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11.13 Farmstead Turf (noncropland) and Sod Farms

Do not use on residential sites.

For use in general farmstead (noncropland) and sod farms, apply 4.12 – 44 fluid ounces of XtendiMax® With VaporGrip® Technology per acre to control or suppress growth of many annual, biennial, and some perennial broadleaf weeds commonly found in turf. XtendiMax® With VaporGrip® Technology will also suppress many other listed perennial broadleaf weeds and woody brush and vine species. Refer to Table 1 for rate recommendations based on targeted weed or brush species and growth stage.

Repeat treatments may be made as needed; however, do not exceed 44 fluid ounces of XtendiMax® With VaporGrip® Technology per acre, per growing season.

Apply 30 - 200 gallons of diluted spray per treated acre (3 - 17 quarts of water per 1,000 square feet), depending on density or height of weeds treated and on the type of equipment used.

To avoid injury to newly seeded grasses, delay application of XtendiMax® With VaporGrip® Technology until after the second mowing. Furthermore, applying more than 16 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre may cause noticeable stunting or discoloration of sensitive grass species such as bentgrass, carpetgrass, buffalograss, and St. Augustinegrass.

In areas where roots of sensitive plants extend, do not apply more than 5.5 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre on coarse-textured (sandy-type) soils, or in excess of 8 fluid ounces per treated acre on fine-textured soils. Do not make repeat applications in these areas for 30 days and until previous applications of XtendiMax® With VaporGrip® Technology have been activated in the soil by rain or irrigation.

12.0 CROPS WITH XTEND® TECHNOLOGY

COTTON WITH XTENDFLEX® TECHNOLOGY (INCLUDING BOLLGARD II® XTENDFLEX® COTTON, BOLLGARD® 3 XTENDFLEX® COTTON, OR XTENDFLEX® COTTON), ROUNDUP READY 2 XTEND® SOYBEAN, AND XTENDFLEX® SOYBEAN CONTAIN A PATENTED GENE THAT PROVIDES TOLERANCE TO DICAMBA, THE ACTIVE INGREDIENT IN THIS PRODUCT. THIS PRODUCT WILL CAUSE SEVERE CROP INJURY OR DESTRUCTION AND YIELD LOSS IF APPLIED TO COTTON AND SOYBEAN THAT ARE NOT DICAMBA TOLERANT, INCLUDING COTTON AND SOYBEAN WITH A TRAIT ENGINEERED TO CONFER TOLERANCE TO AUXIN HERBICIDES OTHER THAN DICAMBA. FOLLOW THE REQUIREMENTS SET FORTH HEREIN TO PREVENT SEVERE CROP INJURY OR DESTRUCTION AND YIELD LOSS. CONTACT WITH FOLIAGE, GREEN STEMS, OR FRUIT OF CROPS, OR ANY DESIRABLE PLANTS THAT DO NOT CONTAIN A DICAMBA TOLERANCE GENE OR ARE NOT NATURALLY TOLERANT TO DICAMBA, COULD RESULT IN SEVERE PLANT INJURY OR DESTRUCTION.

Information on cotton with XtendFlex® Technology, Roundup Ready 2 Xtend® Soybean, and XtendFlex® Soybean can be obtained from your seed supplier or ~~Monsanto~~ Bayer representative. Cotton with XtendFlex® Technology, Roundup Ready 2 Xtend® Soybean, and XtendFlex® Soybean must be purchased from an authorized licensed seed supplier.

Note: Cotton with XtendFlex® Technology, Roundup Ready 2 Xtend® Soybean, and XtendFlex® Soybean and methods of controlling weeds and applying dicamba in a Cotton with XtendFlex® Technology, Roundup Ready 2 Xtend® Soybean, and XtendFlex® Soybean crop are protected under U.S. patent law. No license to use Cotton with XtendFlex® Technology, Roundup Ready 2 Xtend® Soybean, and XtendFlex® Soybean is granted or implied with the purchase of this herbicide product. Cotton with XtendFlex® Technology, Roundup Ready 2 Xtend® Soybean, and XtendFlex® Soybean are owned by Monsanto and a license must be obtained from Monsanto before using it. Contact your Authorized Monsanto Retailer for information on obtaining a license to Cotton with XtendFlex® Technology, Roundup Ready 2 Xtend® Soybean, and XtendFlex® Soybean.

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12.1 Cotton with XtendFlex® Technology

DO NOT combine these instructions with other instructions in the "COTTON" Section of **this** label for use over crops that do not contain the dicamba tolerance trait.

TYPES OF APPLICATIONS: Burndown/Early Preplant; Preplant; At-Planting; Preemergence; Postemergence (In-crop)

USE INSTRUCTIONS
Apply this product in a minimum of 15 gallons of spray solution per acre as a broadcast application. For best performance, control weeds early when they are less than 4 inches. Timely application will improve control and reduce weed competition. Refer to the following table for maximum application rates of this product with cotton with XtendFlex® Technology.

Maximum Application Rates	
Combined total per year for all applications	88 fluid ounces per acre (2.0 lb. a.e. dicamba per acre)
Total of all Burndown/Early Preplant, Preplant, At-Planting, and Preemergence applications	44 fluid ounces per acre (1.0 lb. a.e. dicamba per acre)
Total of all in-crop applications up to mid-bloom stage or no more than 60 days after planting, whichever occurs first	44 fluid ounces per acre (1.0 lb. a.e. dicamba per acre)
Maximum In-crop, single application	22 fluid ounces per acre (0.5 lb. a.e. dicamba per acre)

a.e. – acid equivalent

Refer to Table 1 for application rates for weed type and growth stage controlled by this product. Maximum in-crop application rate should be used when treating tough to control weeds, dense vegetative growth or weeds with a well-established root system.

Burndown/Early Preplant, Preplant, At-Planting, Preemergence
USE INSTRUCTIONS: This product may be used to control broadleaf weeds and may be applied before, during or immediately after planting cotton with XtendFlex® Technology. Refer to the "WEEDS CONTROLLED" section of this label for XtendiMax® With VaporGrip® Technology for specific weeds controlled.

RESTRICTIONS:
- The maximum combined quantity of this product that may be applied for all burndown/early preplant, preplant, at-planting, and preemergence applications is 44 fluid ounces (1.0 lb a.e. dicamba) per acre per season.
- The maximum application rate for a single, burndown/early preplant, preplant, at-planting, or preemergence application must not exceed 44 fluid ounces (1.0 lb a.e. dicamba) per acre.
- Do not apply less than 22 fluid ounces (0.5 lb a.e. dicamba) per acre.

Postemergence (In-crop)
USE INSTRUCTIONS: This product may be used to control broadleaf weeds in cotton with XtendFlex® Technology. In-crop applications of this product can be made up to mid-bloom stage or no more than 60 days after planting, whichever occurs first.

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The maximum and minimum rate for any single, in-crop application is 22 fluid ounces (0.5 lb a.e. dicamba) per acre. Using the appropriate application rate may reduce the selection for resistant weeds. For best performance, control weeds early when they are less than 4 inches. To the extent permitted by applicable law, Monsanto Company does not warrant product performance of applications to labeled weeds greater than 4 inches in height. Sequential applications of this product may be necessary to control new flushes of weeds or on tough-to-control weeds. Allow at least 7 days between applications.

Postemergence applications of this product mixed with adjuvants may cause a leaf response to cotton with XtendFlex® Technology. The symptoms usually appear as necrotic spots on fully expanded leaves. EC-based products that are tank mixed with products containing dicamba may increase the severity of the leaf damage.

RESTRICTIONS:

- The combined total applied in-crop up to mid-bloom stage or no more than 60 days after planting, whichever occurs first, must not exceed 44 fluid ounces (1.0 lb a.e. dicamba) per acre and a maximum of two in-crop applications.
- The maximum single, in-crop application rate must not exceed 22 fluid ounces (0.5 lb a.e. dicamba).
- The combined total per year for all applications must not exceed 88 fluid ounces (2.0 lb a.e. dicamba) per acre. For example, if a preplant application of 44 fluid ounces (1.0 lb a.e. dicamba) per acre was made, then the combined total in-crop applications must not exceed 44 fluid ounces (1.0 lb a.e. dicamba) per acre.

12.2 Roundup Ready 2 Xtend® Soybean and XtendFlex® Soybean

DO NOT combine these instructions with other instructions in the "SOYBEAN" Section of **this** label for use over crops that do not contain the dicamba tolerance trait.

TYPES OF APPLICATIONS: Burndown/Early Preplant; Preplant; At-Planting; Preemergence; Postemergence (In-crop); Lay-By

USE INSTRUCTIONS

Apply this product in a minimum of 15 gallons of spray solution per acre as a broadcast application. For best performance, control weeds early when they are less than 4 inches. Timely application will improve control and reduce weed competition. Refer to the following table for maximum application rates of this product with Roundup Ready 2 Xtend® Soybean and XtendFlex® Soybean.

Maximum Application Rates	
Combined total per year for all applications	88 fluid ounces per acre (2.0 lb. a.e. dicamba per acre)
Total of all Burndown/Early Preplant, Preplant, At-Planting, and Preemergence applications	44 fluid ounces per acre (1.0 lb. a.e. dicamba per acre)
Total of all In-crop applications from emergence prior to beginning bloom (R1 stage soybeans) or no more than 45 days after planting, whichever occurs first	44 fluid ounces per acre (1.0 lb. a.e. dicamba per acre)
Maximum In-crop, single application	22 fluid ounces per acre (0.5 lb. a.e. dicamba per acre)

a.e. – acid equivalent

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Refer to Table 1 for application rates for weed type and growth stage controlled by this product. Maximum in-crop application rate should be used when treating tough to control weeds, dense vegetative growth or weeds with a well-established root system.

Burndown/Early Preplant, Preplant, At-Planting, Preemergence
USE INSTRUCTIONS: This product may be used to control broadleaf weeds and may be applied before, during or immediately after planting Roundup Ready 2 Xtend® Soybean and XtendFlex® Soybean. Refer to the "WEEDS CONTROLLED" section of this label for specific weeds controlled.

RESTRICTIONS:

- The maximum combined quantity of this product that may be applied for all burndown/early preplant, preplant, at-planting, and preemergence applications is 44 fluid ounces (1.0 lb a.e. dicamba) per acre per season.
- The maximum application rate for a single, burndown/early preplant, preplant, at-planting, or preemergence application must not exceed 44 fluid ounces (1.0 lb a.e. dicamba) per acre.
- Do not apply less than 22 fluid ounces (0.5 lb a.e. dicamba) per acre.

Postemergence (In-crop)
USE INSTRUCTIONS: This product may be used to control broadleaf weeds in Roundup Ready 2 Xtend® Soybean and XtendFlex® Soybean. In-crop applications of this product can be made prior to beginning bloom (R1 stage soybeans) or no more than 45 days after planting, whichever occurs first.

The maximum and minimum rate for any single, in-crop application is 22 fluid ounces (0.5 lb a.e. dicamba) per acre. Using the appropriate application rate may reduce the selection for resistant weeds. For best performance, control weeds early when they are less than 4 inches. To the extent permitted by applicable law, Monsanto Company does not warrant product performance of applications to labeled weeds greater than 4 inches in height.

A second application of this product may be necessary to control new flushes of weeds and can be made prior to beginning bloom (R1 stage soybeans) or no more than 45 days after planting, whichever occurs first. Allow at least 7 days between applications. For best results, apply XtendiMax® With VaporGrip® Technology after some weed re-growth has occurred.

Application of this product postemergence and under stressful environments may cause temporary loss of turgor, a response commonly described as leaf droop in Roundup Ready 2 Xtend® Soybean and XtendFlex® Soybean. Typically, affected plants recover in 1-3 days depending on the level of droop and environmental conditions.

RESTRICTIONS:

- The combined total application rate in-crop prior to beginning bloom (R1 stage soybeans) or no more than 45 days after planting, whichever occurs first, must not exceed 44 fluid ounces (1.0 lb. a.e. dicamba) per acre a maximum of two in-crop applications.
- Do not make in-crop applications of this product during and after beginning bloom (R1 stage soybeans) or more than 45 days after planting.
- The maximum single, in-crop application rate must not exceed 22 fluid ounces (0.5 lb. a.e. dicamba) per acre. The combined total per year for all applications must not exceed 88 fluid ounces (2.0 lb. a.e. dicamba) per acre.

13.0 WEEDS CONTROLLED

General Weed List, Including ALS-, Glyphosate, and Triazine-Resistant Biotypes

Annuals

Alkanet
Amaranth, Palmer, Powell, Spiny
Aster, Slender
Bedstraw, Catchweed
Beggarweed, Florida
Broomweed, Common
Buckwheat, Tartary, Wild
Buffalobur
Burclover, California
Burcucumber
Buttercup, Corn, Creeping, Roughseed, Western Field
Carpetweed
Catchfly, Nightflowering
Chamomile, Corn
Chevil, Bur
Chickweed, Common
Clovers
Cockle, Corn, Cow, White
Cocklebur, Common
Copperleaf, Hophornbeam
Cornflower (Bachelor Button)
Croton, Tropic, Woolly
Daisy, English
Dragonhead, American
Eveningprimrose, Cutleaf
Falseflax, Smallseed
Fleabane, Annual
Flixweed
Fumitory
Goosefoot, Nettleleaf
Hempnettle
Henbit
Jacobs-Ladder
Jimsonweed
Knawel (German Moss)
Knotweed, Prostrate
Kochia
Ladysthumb
Lambsquarters Common
Lettuce, Miners, Prickly
Mallow, Common, Venice
Marestail (Horseweed)
Mayweed
Morningglory, Ivyleaf, Tall
Mustard, Black, Blue, Tansy, Treacle, Tumble, Wild, Yellowtops
Nightshade, Black, Cutleaf
Pennycress, Field (Fanweed, Frenchweed, Stinkweed)
Pepperweed, Virginia (Peppergrass)
Pigweed, Prostrate, Redroot (Carelessweed), Rough, Smooth, Tumble
Pineappleweed
Poorjoe
Poppy, Red-horned
Puncturevine
Purslane, Common
Pusley, Florida
Radish, Wild
Ragweed, Common, Giant (Buffaloweed), Lance-Leaf
Rocket, London, Yellow
Rubberweed, Bitter (Bitterweed)
Salsify
Senna, Coffee
Sesbania, Hemp
Shepherdpurse
Sicklepod
Sida, Prickly (Teaweed)
Smartweed, Green, Pennsylvania
Sneezeweed, Bitter
Sowthistle, Annual, Spiny
Spanish Needles
Spikeweed, Common
Spurge, Prostrate, Leafy
Spurry, Corn
Starbur, Bristly
Starwort, Little
Sumpweed, Rough
Sunflower, Common (Wild), Volunteer
Thistle, Russian
Velvetleaf
Waterhemp, Common, Tall
Waterprimrose, Winged
Wormwood

Biennials

Burdock, Common
Carrot, Wild (Queen Anne's Lace)
Cockle, White
Eveningprimrose, Common
Geranium, Carolina
Gromwell
Knapweed, Diffuse, Spotted
Mallow, Dwarf
Plantain, Bracted
Ragwort, Tansy
Starthistle, Yellow
Sweetclover
Teasel
Thistle, Bull, Milk, Musk, Plumeless

Perennials

Alfalfa[1]
Artichoke, Jerusalem
Aster, Spiny, Whiteheath
Bedstraw, Smooth
Bindweed, Field, Hedge
Blueweed, Texas
Bursage, Woollyleaf[1] (Bur Ragweed, Povertyweed)
Buttercup, Tall
Campion, Bladder
Chickweed, Field, Mouseear
Chicory[1]
Clover[1], Hop
Dandelion[1], Common
Dock[1] Broadleaf (Bitterdock), Curly
Dogbane, Hemp
Dogfennel[1] (Cypressweed)
Fern, Bracken
Garlic, Wild
Goldenrod, Canada, Missouri
Goldenweed, Common
Hawkweed
Henbane, Black[1]
Horsenettle, Carolina
Ironweed
Knapweed, Black, Diffuse, Russian[1], Spotted
Milkweed, Climbing, Common, Honeyvine, Western Whorled
Nettle, Stinging
Nightshade, Silverleaf (White Horsenettle)
Onion, Wild
Plaintain, Broadleaf, Buckhorn

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Pokeweed	Spurge, Leafy	Waterprimrose, Creeping
Ragweed, Western	Sundrops	Woodsorrel[1], Creeping, Yellow
Redvine	Thistle, Canada, Scotch	Wormwood, Absinth, Louisiana
Sericia Lespedeza	Toadflex, Dalmatian	Yankeeweed
Smartweed, Swamp	Tropical Soda Apple	Yarrow, Common[1]
Snakeweed, Broom	Trumpetcreeper (Buckvine)	
Sorrel[1], Red (Sheep Sorrel)	Vetch	
Sowthistle[1], Perennial	Waterhemlock, Spotted	

[1] Noted perennials may be controlled using lower rates of **XtendiMax® With VaporGrip® Technology** than those recommended for other listed perennial weeds.

Woody Species

Alder	Hawthorn (Thornapple)[2]	Plum, Sand (Wild Plum)[2]
Ash	Hemlock	Poplar
Aspen	Hickory	Rabbitbrush
Basswood	Honeylocust	Redcedar, Eastern[2]
Beech	Honeysuckle	Rose[2], McCartney, Multiflora
Birch	Hornbeam	Sagebrush, Fringed[2]
Blackberry[2]	Huckleberry	Sassafras
Blackgum[2]	Huisache	Serviceberry
Cedar[2]	Ivy, Poison	Spicebush
Cherry	Kudzu	Spruce
Chinquapin	Locust, Black	Sumac
Cottonwood	Maple	Sweetgum[2]
Creosotebush[2]	Mesquite	Sycamore
Cucumbertree	Oak	Tarbush
Dewberry[2]	Oak, Poison	Willow
Dogwood[2]	Olive, Russian	Witchhazel
Elm	Persimmon, Eastern	Yaupon[2]
Grape	Pine	Yucca[2]

[2]Growth suppression only

14.0 LIMIT OF WARRANTY AND LIABILITY

Monsanto Company warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes set forth in the Complete Directions for Use label booklet ("Directions") when used in accordance with those Directions under the conditions described therein. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, NO OTHER EXPRESS WARRANTY OR IMPLIED WARRANTY OF FITNESS FOR PARTICULAR PURPOSE OR MERCHANTABILITY IS MADE. This warranty is also subject to the conditions and limitations stated herein. Specifically, and without limiting the foregoing, MONSANTO MAKES NO RECOMMENDATION OR WARRANTY HEREIN REGARDING THE USE OF ANY PRODUCTS THAT MAY APPEAR ON THE WEBSITE REFERENCED IN THE TANK-MIXING INSTRUCTIONS HEREIN, REGARDLESS OF WHETHER SUCH PRODUCT IS USED ALONE OR IN A TANK MIX WITH XTENDIMAX® WITH VAPORGRIP® TECHNOLOGY. BUYER AND ALL USERS ARE SOLELY RESPONSIBLE FOR ANY LACK OF PERFORMANCE, LOSS, OR DAMAGE IN CONNECTION WITH THE USE OR HANDLING OF ANY SUCH PRODUCT ALONE OR IN A TANK MIX WITH XTENDIMAX® WITH VAPORGRIP® TECHNOLOGY.

Buyer and all users shall promptly notify this Company of any claims whether based in contract, negligence, strict liability, other tort or otherwise.

To the extent consistent with applicable law, buyer and all users are responsible for all loss or damage from use or handling which results from conditions beyond the control of this Company, including, but not limited to, incompatibility with products other than those set forth in the Directions, application to or

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contact with desirable vegetation, failure of this product to control weed biotypes which develop resistance to dicamba, unusual weather, weather conditions which are outside the range considered normal at the application site and for the time period when the product is applied, as well as weather conditions which are outside the application ranges set forth in the Directions, application in any manner not explicitly set forth in the Directions, moisture conditions outside the moisture range specified in the Directions, or the presence of products other than those set forth in the Directions in or on the soil, crop or treated vegetation.

This Company does not warrant any product reformulated or repackaged from this product except in accordance with this Company's stewardship requirements and with express written permission from this Company.

For in-crop (over-the-top) uses on crops with Xtend® Technology, crop safety and weed control performance are not warranted by Monsanto when this product is used in conjunction with "brown bag" or "bin run" seed saved from previous year's production and replanted.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE LIMIT OF THE LIABILITY OF THIS COMPANY OR ANY OTHER SELLER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT (INCLUDING CLAIMS BASED IN CONTRACT, NEGLIGENCE, STRICT LIABILITY, OTHER TORT OR OTHERWISE) SHALL BE THE PURCHASE PRICE PAID BY THE USER OR BUYER FOR THE QUANTITY OF THIS PRODUCT INVOLVED, OR, AT THE ELECTION OF THIS COMPANY OR ANY OTHER SELLER, THE REPLACEMENT OF SUCH QUANTITY, OR, IF NOT ACQUIRED BY PURCHASE, REPLACEMENT OF SUCH QUANTITY. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, IN NO EVENT SHALL THIS COMPANY OR ANY OTHER SELLER BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES.

Upon opening and using this product, buyer and all users are deemed to have accepted the terms of this LIMIT OF WARRANTY AND LIABILITY which may not be varied by any verbal or written agreement. If terms are not acceptable, return at once unopened.

Bollgard II®, Bollgard®, Degree Xtra®, Field Master®, Harness®, Roundup Ready®, Roundup Ready 2 Xtend®, Roundup PowerMAX®, RT 3®, Roundup WeatherMAX®, XtendiMax®, XtendFlex® and VaporGrip® are registered trademarks of Monsanto Technology LLC. All other trademarks are the property of their respective owners.

EPA Reg. No. 524-617

EPA Establishment No. [insert appropriate est. no.]

Lot number [insert appropriate lot number]

Net contents [insert net contents]

Packed for:
MONSANTO COMPANY
800 N. Lindbergh Blvd.
ST. LOUIS, MISSOURI, 63167 U.S.A.

© [DATE]

Message

From: Kenny, Daniel [Kenny.Dan@epa.gov]
Sent: 11/1/2018 11:03:34 PM
To: MARVIN, THOMAS [AG/1920] [thomas.marvin@bayer.com]
CC: Baris, Reuben [Baris.Reuben@epa.gov]
Subject: RE: Bayer must provide a point of contact for the registration notice
Attachments: Xtendimax Label - 2018.pdf

Hi Tom. Please see attached for the label. The letter will follow soon.

Dan

From: Kenny, Daniel
Sent: Thursday, November 01, 2018 4:20 PM
To: MARVIN, THOMAS [AG/1920] <thomas.marvin@bayer.com>
Cc: Baris, Reuben <Baris.Reuben@epa.gov>
Subject: Re: Bayer must provide a point of contact for the registration notice

Hi Tom. I'll send a copy as soon as I get back to my desk. The letter was in QA/QC but should be ready any minute too.

Sent from my iPhone

On Nov 1, 2018, at 2:49 PM, MARVIN, THOMAS [AG/1920] <thomas.marvin@bayer.com> wrote:

> Reuben: Any estimate on when we should expect to receive a stamped label?
>
> Tom Marvin
> Director, Federal Regulatory Affairs
> 1300 I Street, NW
> Washington, DC 20005
> Cell: 202-676-7846
> Desk: 202-383-2851
>
> ---
>
> **From:** MARVIN, THOMAS [AG/1920]
> **Sent:** Thursday, November 01, 2018 8:52 AM
> **To:** 'Baris, Reuben' <Baris.Reuben@epa.gov>; MARVIN, THOMAS [AG/1920] <thomas.marvin@bayer.com>
> **Cc:** Kenny, Daniel <Kenny.Dan@epa.gov>
> **Subject:** RE: Bayer must provide a point of contact for the registration notice
>
> Reuben:
>
> -5e Assistance Number: 1-844-RRXTEND
>
> -6(d)(v): Chemical.monsanto@monsanto.com
>
> Tom Marvin
> Director, Federal Regulatory Affairs
> 1300 I Street, NW

Washington, DC 20005
Cell: 202-676-7846
Desk: 202-383-2851

From: Baris, Reuben [mailto:Baris.Reuben@epa.gov]
Sent: Wednesday, October 31, 2018 10:20 PM
To: MARVIN, THOMAS [AG/1920] <thomas.marvin@bayer.com>
Cc: Kenny, Daniel <Kenny.Dan@epa.gov>
Subject: Bayer must provide a point of contact for the registration notice

Two items still need to be provided:

5(e) of the terms

"If you have any questions about the use of this product, please contact (*insert appropriate Bayer assistance telephone number)*."

6(d)(v) of the terms.

For those distributors and retailers who do not intend to relabel themselves, BASF must instruct them to contact *(Insert Bayer's specific contact or email)* immediately, so that Bayer CropScience can reclaim the inventory. If Bayer CropScience performs the relabeling, it must be done at an EPA-registered establishment, and all production must be reported per FIFRA section 7.

This system contains confidential and copyrighted information. Access to the system is limited to users only and only for approved business purposes. Anyone obtaining access to and using this system acknowledges that all information on this system including but not limited to electronic mail, word processing, directories and files, constitutes private property belonging to the Company.
Anyone using or viewing this system is further advised that the use of this system may be recorded and the information contained herein maybe monitored, retrieved and reviewed if, in the company's sole discretion, there is a business reason to do so.
If improper activity or use is suspected, all available information may be used by the Company for possible disciplinary action, prosecution, civil claim or any remedy or lawful purpose.

MASTER LABEL FOR EPA REG. NO. 524-617

RESTRICTED USE PESTICIDE

For retail sale to and use only by Certified Applicators

This labeling expires on 12/20/2020. Do not use or distribute this product after 12/20/2020.

ACCEPTED
11/01/2018
Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 524-617

Primary Brand Name:

M1768 Herbicide

Alternate Brand Name:

XtendiMax® With VaporGrip® Technology

DICAMBA	GROUP	4	HERBICIDE

ACTIVE INGREDIENT:

Diglycolamine salt of dicamba (3,6-dichloro-*o*-anisic acid)* 42.8%
OTHER INGREDIENTS: 57.2%

TOTAL: 100.0%
* contains 29.0%, 3,6-dichloro-*o*-anisic acid (2.9 pounds acid equivalent per U.S. gallon or 350 grams per liter).

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RESTRICTED USE PESTICIDE

For retail sale to and use only by Certified Applicators

XtendiMax® With VaporGrip® Technology

Complete Directions for Use

This labeling expires on 12/20/2020. Do not use or distribute this product after 12/20/2020.

EPA Reg. Number: 524-617

For weed control in asparagus, conservation reserve programs, corn, cotton, fallow croplands, general farmstead (noncropland), sorghum, grass grown for seed, hay, proso millet, pasture, rangeland, small grains, sod farms and farmstead turf, soybean, sugarcane, cotton with XtendFlex Technology, Roundup Ready 2 Xtend Soybean, and XtendFlex Soybean.

DICAMBA	GROUP	4	HERBICIDE

This label supersedes any previously issued labeling for this product, including previously issued supplemental labeling.

XtendiMax® With VaporGrip® Technology is approved by U.S. EPA for all uses specified on this label in the following states, subject to county restriction as noted: Alabama, Arkansas, Arizona, Colorado, Delaware, Florida (excluding Palm Beach County), Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Michigan, Minnesota, Mississippi, Missouri, Nebraska, New Jersey, New Mexico, New York, North Carolina, North Dakota, Oklahoma, Ohio, Pennsylvania, South Carolina, South Dakota, Tennessee (excluding Wilson County), Texas, Virginia, West Virginia, Wisconsin.

Check the registration status of each product in each state before using.

READ THE ENTIRE LABEL FOR **XTENDIMAX® WITH VAPORGRIP® TECHNOLOGY**
BEFORE PROCEEDING WITH THE USE DIRECTIONS CONTAINED IN THIS LABEL

READ AND FOLLOW ALL APPLICABLE DIRECTIONS, RESTRICTIONS, AND PRECAUTIONS ON THE CONTAINER LABEL AND BOOKLET AND WWW.XTENDIMAXAPPLICATIONREQUIREMENTS.COM.

Read the "LIMIT OF WARRANTY AND LIABILITY" statement at the end of the label before buying or using. If terms are not acceptable, return at once unopened.

Net contents:

EPA Establishment No.:

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1.0 INGREDIENTS

ACTIVE INGREDIENT:

Diglycolamine salt of dicamba (3,6-dichloro-*o*-anisic acid)* 42.8%
OTHER INGREDIENTS: 57.2%

TOTAL: 100.0%
* contains 29.0%, 3,6-dichloro-*o*-anisic acid (2.9 pounds acid equivalent per U.S. gallon or 350 grams per liter).

DICAMBA	GROUP	4	HERBICIDE

2.0 IMPORTANT PHONE NUMBERS

1. FOR PRODUCT INFORMATION OR ASSISTANCE IN USING THIS PRODUCT, CALL TOLL-FREE, 1-800-332-3111.
2. IN CASE OF AN EMERGENCY INVOLVING THIS HERBICIDE PRODUCT, OR FOR MEDICAL ASSISTANCE, CALL COLLECT, DAY OR NIGHT, (314)-694-4000.

IN CASE OF SPILL:

Steps to be taken in case material is released or spilled:

Dike and contain the spill with inert material (sand, earth, etc.) and transfer liquid and solid diking material to separate containers for disposal. Remove contaminated clothing, and wash affected skin areas with soap and water. Wash clothing before re-use. Keep the spill out of all sewers and open bodies of water.

3.0 PRECAUTIONARY STATEMENTS

3.1 Hazards to Humans and Domestic Animals

Keep out of reach of children.

CAUTION!

Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

FIRST AID	
IF IN EYES	• Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
IF SWALLOWED:	• Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow.

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	• Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give anything by mouth to an unconscious person.
IF ON SKIN OR CLOTHING:	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 to 20 minutes. • Call a poison control center or doctor for treatment advice.
• Have the product container or label with you when calling a poison control center or doctor, or going for treatment. • You can call **(314) 694-4000**, collect day or night, for emergency medical treatment information. • This product is identified as **XtendiMax® With VaporGrip® Technology, EPA Registration No. 524-617.**	

PERSONAL PROTECTIVE EQUIPMENT (PPE)

All mixers, loaders, applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks

See "Engineering Controls Statement" for additional requirements.
Follow the manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

ENGINEERING CONTROLS STATEMENT

When handlers use closed systems, or enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

IMPORTANT: When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for "all mixers, loaders, applicators and other handlers" and have such PPE immediately available for use in an emergency, such as a spill or equipment breakdown.

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

3.2 Environmental Hazards

Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters or rinsate. Apply this product only as directed on the label.

This chemical is known to leach through soil into ground water under certain conditions as a result of agricultural use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.

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Ground and Surface Water Protection

Point source contamination - To prevent point source contamination, do not mix or load this pesticide product within 50 feet of wells (including abandoned wells and drainage wells), sink holes, perennial or intermittent streams and rivers, and natural or impounded lakes and reservoirs. Do not apply pesticide product within 50 feet of wells. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pad or properly diked mixing/loading areas as described below.

Mixing, loading, rinsing, or washing operations performed within 50 feet of a well are allowed only when conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be on or move across the pad. The pad must be self-contained to prevent surface water flow over or from the pad. The pad capacity must be maintained at 110% that of the largest pesticide container or application equipment used on the pad and have sufficient capacity to contain all product spills, equipment or container leaks, equipment wash waters, and rainwater that may fall on the pad. The containment capacity does not apply to vehicles delivering pesticide shipments to the mixing/loading site. States may have in effect additional requirements regarding wellhead setbacks and operational containment.

Care must be taken when using this product to prevent: a) back siphoning into wells, b) spills or c) improper disposal of excess pesticide, spray mixtures or rinsates. Check valves or anti-siphoning devices must be used on all mixing equipment.

Movement by surface runoff or through soil - Do not apply under conditions which favor runoff. Do not apply to impervious substrates such as paved or highly compacted surfaces in areas with high potential for ground water contamination. Ground water contamination may occur in areas where soils are permeable or coarse and ground water is near the surface. Do not apply to soils classified as sand with less than 3% organic matter and where ground water depth is shallow. To minimize the possibility of ground water contamination, carefully follow application rate recommendations as affected by soil type in the Crop Specific Information section of this label.

Movement by water erosion of treated soil - Do not apply or incorporate this product through any type of irrigation equipment nor by flood or furrow irrigation. Ensure treated areas have received at least one-half inch rainfall (or irrigation) before using tailwater for subsequent irrigation of other fields.

Endangered Species Concerns
Use of this product in a manner inconsistent with its labeling may pose a hazard to endangered or threatened species. When using this product, you must follow the measures contained in the Endangered Species Protection Bulletin for the area in which you are applying the product. To obtain Bulletins, no more than six months before using this product, consult https://www.epa.gov/endangered-species or call 1-844-447-3813. You must use the Bulletin valid for the month in which you will apply the product.

It is a Federal offense to use any pesticide in a manner that results in the death of an endangered species.

3.3 Physical or Chemical Hazards

Do not store or heat near oxidizing agents, hazardous chemical reaction may occur.

4.0 DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling. This product can only be used in accordance with the Directions for Use on this label. This labeling must be in the user's possession during application.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulations.

This is a restricted use pesticide.

4.1 Training

Prior to applying this product in the 2019 growing season and each growing season thereafter, all applicator(s) applying this product must complete dicamba or auxin-specific training. If training is available and required by the state where the applicator intends to apply this product, the applicator must complete that training. If the state where the application is intended does not require auxin or dicamba-specific training, then the applicator must complete dicamba or auxin-specific training provided by one of the following sources: a) a registrant of a dicamba product approved for in-crop use with dicamba-tolerant crops, or b) a state or state-authorized provider.

4.2 Record Keeping

Record keeping is required for applications of this product. **The certified applicator must keep the following records for a period of two years**; records must be generated as soon as practical but no later than 72 hours after application and a record must be kept for each application of Xtendimax with VaporGrip Technology. Records must be made available to State Pesticide Control Official(s), USDA, and EPA upon request. An example form summarizing record keeping requirements can be found on www.xtendimaxapplicationrequirements.com.

1. All Items required by 7 CFR Part 110 (RECORDKEEPING ON RESTRICTED USE PESTICIDES BY CERTIFIED APPLICATORS) including:
    a. The brand or product name
    b. The EPA registration number
    c. The total amount applied
    d. The month, day, and year of application
    e. The location of the application
    f. The crop, commodity, stored product, or site of application
    g. The size of treated area
    h. The name of the certified applicator
    i. The certification number of the certified applicator
2. Training: Date and provider of required training completed and proof of completion.
3. Receipts of Purchase: Receipts or copies for the purchase of this product.
4. Product Label: A copy of this product label, and any state special local needs label that supplements this label.
5. Crop Planting Date: Record of the date at which the crop was planted.
6. Buffer Requirement: Record of the buffer distance calculation and any areas included within the buffer distance calculations as allowed in Section 9.1.4.a.
7. Sensitive Crops Awareness: Record that a sensitive crop registry was consulted and survey adjacent fields documenting the crops/areas surrounding the field prior to application. At a minimum, records must include the name of the sensitive crop registry and the date it was consulted and documentation of adjacent crops/areas and the date the survey was conducted (read Section 9.1.4.b for additional information).
8. Start and Finish Times of Each Application: Record of the time at which the application started and the time when the application finished.
9. Application Timing: Record of the type of application (for example: pre-emergence, post-emergence) and number of days after planting if post-emergence.
10. Air Temperature: Record of the air temperature in degrees Fahrenheit at the start and completion of each application.

11. Wind Speed and Direction: Record of the wind speed and direction (the direction from which the wind is blowing) at boom height at the start and completion of each application of this product (Read Section 9.1.1 for information on wind speed).
12. Nozzle and Pressure: Record of the spray nozzle manufacturer/brand, type, orifice size, and operating pressure used during each application of this product (Read Section 9.1.1 for information on nozzles and pressures.)
13. Tank Mix Products: Record of the brand names and EPA registration numbers (if available) for all products (pesticides, adjuvants, and other products) that were tank mixed with this product for each application (Read Section 8.0 for more information on tank mixing.)
14. Spray System Cleanout: Record of compliance with the section of this label titled Section 9.5: Proper Spray System Equipment Cleanout. At a minimum, records must include the confirmation that the spray system was clean before using this product and that the post-application cleanout was completed in accordance with Section 9.5.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about Personal Protective Equipment (PPE), and restricted-entry intervals. The requirements in this box only apply to uses of this product that are covered by the WPS.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 24 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as, plants, soil, or water is:

- Coveralls worn over short-sleeved shirt and short pants
- Chemical-resistant footwear plus socks
- Waterproof gloves
- Chemical-resistant headgear for overhead exposure
- Protective eyewear

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Do not enter or allow people (or pets) to enter the treated area until sprays have dried. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Do not enter or allow other people or pets to enter until sprays have dried.

5.0 STORAGE AND DISPOSAL

Proper pesticide storage and disposal are essential to protect against exposure to people and the environment due to leaks and spills, excess product or waste, and vandalism. Do not allow this product to contaminate water, foodstuffs, feed or seed by storage and disposal. Open dumping is prohibited. This product may not be mixed, loaded, or used within 50 feet of all wells including abandoned wells, drainage wells, and sinkholes. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pad or properly diked mixing/loading areas as described above

5.1 Pesticide Storage

Groundwater contamination may be reduced by diking and flooring of permanent liquid bulk storage sites with an impermeable material. Spillage or leakage should be contained and absorbed with clay granules, sawdust, or equivalent material for disposal.
Store in original container in a well-ventilated and away from food, pet food, feed, seed, fertilizers, and veterinary supplies. Avoid cross-contamination with other pesticides. Keep container closed to prevent spills and contamination.

5.2 Pesticide Disposal

To avoid wastes, use all material in this container, including rinsate, by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide

disposal program. Such programs are often run by state or local governments or by industry. All disposal must be in accordance with applicable federal, state and local regulations and procedures.
[*Alternate PESTICIDE DISPOSAL statement for transport vehicles only:* To avoid wastes, empty as much product from this transport vehicle as possible for repackaging or use in accordance with label directions. If wastes cannot be avoided, offer remaining product or rinsate to a waste disposal facility or pesticide disposal program. All disposal must be in accordance with applicable federal, state and local regulations and procedures.]

5.3 Container Handling and Disposal

[*Optional label statement if applicable*: See container label for container handling and disposal instructions and refilling limitations.]

[*CONTAINER HANDLING AND DISPOSAL STATEMENTS AND REFILLING LIMITATIONS FOR CONTAINER LABELS*]

[*CONTAINER HANDLING AND DISPOSAL STATEMENT AND REFILLING LIMITATION FOR NONREFILLABLE RIGID CONTAINERS OF LESS THAN 1-GALLON CAPACITY*]

Nonrefillable container. Do not reuse or refill this container.

[*Alternate container statement:* Nonrefillable container. Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state.]

Triple rinse this container promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Then offer this container for recycling, if available. If recycling is not available, dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.

[*Alternate container disposal statement:* Once properly rinsed, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or Monsanto at 1-800-ROUNDUP (1-800-768-6387). If recycling is not available, dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.]

[*CONTAINER HANDLING AND DISPOSAL STATEMENT AND REFILLING LIMITATION FOR NONREFILLABLE RIGID PLASTIC 2.5-GALLON CONTAINERS AND OTHER NONREFILLABLE CONTAINERS OF GREATER THAN 1-GALLON BUT EQUAL TO OR LESS THAN 5-GALLON CAPACITY*]

Nonrefillable container. Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state.

[*Alternate container statement:* Nonrefillable container. Do not reuse or refill this container.]

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Triple rinse or pressure rinse (or equivalent) this container promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Once properly rinsed, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. [*Optional container disposal statement:* To find the nearest site, contact your chemical dealer or Monsanto at 1-800-ROUNDUP (1-800-768-6387)]. If recycling is not available, dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.

[*Alternate container disposal statement:* Then offer this container for recycling, if available. If recycling is not available, dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.]

[*CONTAINER HANDLING AND DISPOSAL STATEMENT AND REFILLING LIMITATION FOR NONREFILLABLE RIGID PLASTIC 30-GALLON CONTAINERS AND OTHER NONREFILLABLE CONTAINERS OF GREATER THAN 5-GALLON CAPACITY*]

Nonrefillable container. Do not reuse or refill this container.

[*Alternate container statement:* Nonrefillable container. Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state.]

Triple rinse or pressure rinse (or equivalent) this container promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Once properly rinsed, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. [*Alternate container disposal statement:* To find the nearest site, contact your chemical dealer or Monsanto at 1-800-ROUNDUP (1-800-768-6387)]. If recycling is not available,

dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.

[*Alternate container disposal statement:* Then offer the container for recycling, if available. If recycling is not available, dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.]

[*Optional container label statement:* Return Properly Rinsed Container to Monsanto for Recycling Contact: 1-800-ROUNDUP (1-800-768-6387)]

[*CONTAINER HANDLING AND DISPOSAL STATEMENT AND REFILLING LIMITATION FOR ALL REFILLABLE CONTAINERS, EXCEPT TRANSPORT VEHICLES*]

Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose.

Cleaning this container before refilling is the responsibility of the refiller. Cleaning this container before final disposal is the responsibility of the person disposing of the container.

To clean this container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer this container for recycling, if available.

[*Optional container disposal statement:* To obtain information about recycling refillable containers, contact Monsanto Company at 1-800-ROUNDUP (1-800-768-6387)]

[*Optional container label statement:* Return Properly Rinsed Container to Monsanto for Recycling, Call 1-800-ROUNDUP (1-800-768-6387)]

[*CONTAINER HANDLING AND DISPOSAL STATEMENT FOR ALL TRANSPORT VEHICLES AS DEFINED IN 40 CFR 156.3]*

THIS LABEL FOR USE WITH TRANSPORT VEHICLES ONLY

Emptied container retains vapor and product residue. Observe all precautions stated on this label until the container is cleaned, reconditioned or destroyed. Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, and worn-out threads and closures. Clean thoroughly before reuse for transportation of a material of different composition or before retiring this transport vehicle from service.

[Alternative label statement: NET CONTENTS: See Bill of Lading]

[Alternative label statement: LOT: See Bill of Lading]

[Alternative label statement: For Net Contents and Lot Number, see Bill of Lading]

6.0 PRODUCT INFORMATION

XtendiMax® With VaporGrip® Technology is approved by U.S. EPA for all uses specified on this label in the following states, subject to county restriction as noted: Alabama, Arkansas, Arizona, Colorado, Delaware, Florida (excluding Palm Beach County), Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Michigan, Minnesota, Mississippi, Missouri, Nebraska, New Jersey, New Mexico, New York, North Carolina, North Dakota, Oklahoma, Ohio, Pennsylvania, South Carolina, South Dakota, Tennessee (excluding Wilson County), Texas, Virginia, West Virginia, Wisconsin.

Additional state restrictions and requirements may apply. The applicator must comply with any additional state requirements and restrictions.

This product is a water-soluble formulation intended for control and suppression of many annual, biennials, and perennial broadleaf weeds, as well as woody brush and vines listed in the WEEDS CONTROLLED section of this label. This product may be used for control of these weeds in asparagus, corn, cotton, conservation reserve programs, fallow cropland, grass grown for seed, hay, proso millet, pasture, rangeland, general farmstead (noncropland), small grains, sod farms and farmstead turf, sorghum, soybean, sugarcane, Cotton with XtendFlex Technology, Roundup Ready 2 Xtend Soybean, and XtendFlex Soybean.

XtendiMax® With VaporGrip® Technology is a contact, systemic herbicide, which can have moderate residual control on small seeded broadleaf weeds, including waterhemp, lambsquarters and Palmer pigweed, depending on rainfall and soil type.

XtendiMax® With VaporGrip® Technology is readily absorbed by plants through shoot and root uptake, translocates throughout the plant's system, and accumulates in areas of active growth. XtendiMax® With VaporGrip® Technology interferes with the plant's growth hormones (auxins) resulting in death of many broadleaf weeds.

Failure to properly clean the entire spray system can result in inadvertent contamination of the spray system. You must ensure that the spray system used to apply this product is clean before using this product.

Rainfast period: Rainfall or irrigation occurring within 4 hours after postemergence applications may reduce the effectiveness of this product.

Refer to the CROP-SPECIFIC INFORMATION and CROPS WITH XTEND TECHNOLOGY sections for application timing and other crop-specific details.

6.1 Restrictions

The applicator must read the entire label, including product labeling and follow all restrictions for XtendiMax® With VaporGrip® Technology. Restrictions included, but are not limited to:

- DO NOT APPLY THIS PRODUCT AERIALLY.
- DO NOT TANK MIX WITH PRODUCTS CONTAINING AMMONIUM SALTS SUCH AS AMMONIUM SULFATE (AMS) AND UREA AMMONIUM NITRATE. Small quantities of AMS can greatly increase the volatility potential of dicamba. Read the TANK MIXING INSTRUCTIONS of this label (Section 8.0) for instructions regarding other tank mix products.
- DO NOT APPLY TO CROPS UNDER STRESS DUE TO LACK OF MOISTURE, HAIL DAMAGE, FLOODING, HERBICIDE INJURY, MECHANICAL INJURY, INSECTS, OR WIDELY FLUCTUATING TEMPERATURES AS INJURY MAY RESULT.
- DO NOT APPLY THROUGH ANY TYPE OF IRRIGATION EQUIPMENT. DO NOT TREAT IRRIGATION DITCHES OR WATER USED FOR CROP IRRIGATION OR DOMESTIC PURPOSES.

- DO NOT MAKE APPLICATION OF THIS PRODUCT IF RAIN THAT MAY EXCEED SOIL FIELD CAPACITY AND RESULT IN SOIL RUNOFF IS EXPECTED IN THE NEXT 24 HOURS

Review the entire label including, specific crop use direction sections for additional restrictions.

7.0 WEED RESISTANCE MANAGEMENT

DICAMBA	GROUP	4	HERBICIDE

Dicamba mimics auxin (a plant hormone) resulting in a hormone imbalance in sensitive plants that interferes with normal cell division, cell enlargement, and protein synthesis. Dicamba active ingredient is a Group 4 herbicide based on the mode of action classification system of the Weed Science Society of America. Any weed population can contain plants naturally resistant to Group 4 herbicides. Weed species resistant to Group 4 herbicides can be effectively managed utilizing another herbicide from a different Group, or by using other cultural or mechanical practices.

7.1 Weed Management Practices

Certain agronomic practices can delay or reduce the likelihood that resistant weed populations will develop and can be utilized to manage weed resistance once it occurs.

Do not use less than the labeled rate of this product in a single application. Using the appropriate application rate can minimize the selection for resistant weeds.

Proactively implementing diversified weed control strategies to minimize selection for weed populations resistant to one or more herbicides is a best practice. A diversified weed management program may include the use of multiple herbicides with different sites of action and overlapping weed spectrum with or without tillage operations and/or other cultural practices. Research has demonstrated that using the labeled rate and directions for use is important to delay the selection for resistance.

The continued effectiveness of this product depends on the successful implementation of a weed resistance management program.

To aid in the prevention of developing weeds resistant to this product:

- Scout fields before application to ensure herbicides and rates will be appropriate for the weed species and weed sizes present.
- Start with a clean field, using either a burndown herbicide application or tillage.
- Control weeds early when they are relatively small (less than 4 inches).
- Apply full rates of XtendiMax® With VaporGrip® Technology for the most difficult to control weed in the field at the specified time (correct weed size) to minimize weed escapes.
- Avoid tank mixtures with other herbicides that reduce the efficacy of this product (through antagonism), or with ones that encourage application rates of this product below those specified on this label.
- Scout fields after application to detect weed escapes or shifts in weed species.
- Control weed escapes before they reproduce by seed or proliferate vegetatively.
- Report any incidence of non-performance of this product against a particular weed species to your Monsanto retailer or representative or call 1-844-RRXTEND (1-844-779-8363).
- If resistance is suspected, treat weed escapes with an herbicide having a site of action other than Group 4 and/or use non-chemical methods to remove escapes, as practical, with the goal of preventing further seed production. EPA defines suspected herbicide resistance as the situation where the following three indicators occur at a site or location:

- Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds;
- A spreading patch of non-controlled plants of a particular weed species; and
- Surviving plants mixed with controlled individuals of the same species.

Additionally, users should follow as many of the following herbicide resistance management practices as is practical:

- Use a broad spectrum soil-applied herbicide with other sites of action as a foundation in a weed control program.
- Utilize sequential applications of herbicides with alternative sites of action.
- Rotate the use of this product with non-Group 4 herbicides.
- Avoid making more than two applications of dicamba and any other Group 4 herbicides within a single growing season unless mixed with an herbicide with a different mechanism of action with an overlapping spectrum for the difficult to control weeds.
- Incorporate non-chemical weed control practices, such as mechanical cultivation, crop rotation, cover crops and weed-free crop seeds, as part of an integrated weed control program.
- Use good agronomic principles that enhance crop development and crop competitiveness.
- Thoroughly clean plant residues from equipment before leaving fields suspected to contain resistant weeds.
- Manage weeds in and around fields, during and after harvest to reduce weed seed production.

Contact the local agricultural extension service, Monsanto representative, agricultural retailer or crop consultant for further guidance on weed control practices as needed.

7.2 Management of Dicamba-Resistant Biotypes

Appropriate testing is critical in order to determine if a weed is resistant to dicamba. Contact your Monsanto representative to determine if resistance in any particular weed biotype has been confirmed in your area, or visit on the Internet www.weedresistancemanagement.com or www.weedscience.org.

Monsanto Company is not responsible for any losses that result from the failure of this product to control dicamba-resistant weed biotypes.

The following good agronomic practices can reduce the spread of confirmed dicamba-resistant biotypes:

- If a naturally occurring resistant biotype is present in your field, this product may be tank-mixed or applied sequentially with an appropriately labeled herbicide with a different mode of action to achieve control (read Section 8.0 for more information on tank mixing).
- Cultural and mechanical control practices (e.g., crop rotation or tillage) can also be used as appropriate.
- Scout treated fields after herbicide application and control weed escapes, including resistant biotypes, before they set seed.
- Thoroughly clean equipment, as practical, for all weed seeds before leaving fields known to contain resistant biotypes.

8.0 TANK MIXING INSTRUCTIONS

Auxin herbicides such as dicamba have the potential to volatilize in lower pH spray mixtures. Knowing the pH of your spray mixture and making the appropriate adjustments to avoid a low pH spray mixture (e.g., pH less than 5) can reduce the potential for volatilization to occur. Talk to your local agricultural consultant, extension agent, or Bayer representative for recommendations to prevent low pH spray mixtures.

XtendiMax® With VaporGrip® Technology may only be tank-mixed with products that have been tested and found not to adversely affect the offsite movement potential of XtendiMax® With VaporGrip® Technology. The applicator must check the website found at www.xtendimaxapplicationrequirements.com no more than 7 days before applying XtendiMax® With VaporGrip® Technology.

DO NOT tank mix any product with XtendiMax® With VaporGrip® Technology unless:

1. The intended tank-mix product is identified on the list of tested products found at www.xtendimaxapplicationrequirments.com;
2. The intended products are not prohibited on either this label or the label of the tank mix product; and
3. All requirements and restrictions on www.xtendimaxapplicationrequirments.com are followed.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, MONSANTO MAKES NO RECOMMENDATION OR WARRANTY HEREIN REGARDING THE USE OF ANY PRODUCT THAT MAY APPEAR ON THE WEBSITE REFERENCED ABOVE, REGARDLESS OF WHETHER SUCH PRODUCT IS USED ALONE OR IN A TANK MIX WITH XTENDIMAX® WITH VAPORGRIP® TECHNOLOGY. BUYER AND ALL USERS ARE SOLELY RESPONSIBLE FOR ANY LACK OF PERFORMANCE, LOSS, OR DAMAGE IN CONNECTION WITH THE USE OR HANDLING OF ANY SUCH PRODUCT ALONE OR IN A TANK MIX WITH XTENDIMAX® WITH VAPORGRIP® TECHNOLOGY. See the section titled "LIMIT OF WARRANTY AND LIABILITY" herein for more information.

8.1 Compatibility Test for Mix Components

Before mixing components, always perform a compatibility jar test.

- For 15 gallons per acre spray volume, use 2.5 cups (591.5 mL) of water. For other spray volumes, adjust rates accordingly. Only use water from the intended source at the source temperature.
- Add components in the sequence indicated in the Mixing Order section below using 2 teaspoons for each pound or 1 teaspoon for each pint of labeled use rate per acre.
- Cap the jar and invert 10 cycles between component additions.
- When the components have all been added to the jar, let the solution stand for 15 minutes.
- Evaluate the solution for uniformity and stability. The spray solution should not have free oil on the surface; fine particles that precipitate to the bottom; or thick (clabbered) texture. If the spray solution is not compatible, repeat the compatibility test with the addition of a suitable compatibility agent. If the solution is then compatible, use the compatibility agent as directed on its label. If the solution is still incompatible, then do not mix the ingredients in the same tank.

8.2 Mixing Order

Only use approved tank mix products as directed on www.xtendimaxapplicationrequirements.com. Always read and follow label directions for all products in the tank mixture. It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. See section 8.0 for additional restrictions on tank mixing.

1. Ensure application and mixing equipment are clean and in proper working order
2. Water - Begin by agitating a thoroughly **clean sprayer** tank three-quarters full of clean water.
3. Agitation - Maintain constant agitation throughout mixing and application.

4. Drift Reducing Adjuvants (DRA)-(when applicable)
5. Inductor - If an inductor is used, rinse it thoroughly after each component has been added.
6. Products in PVA bags - Place any product contained in water-soluble PVA bags into the mixing tank. Wait until all water-soluble PVA bags have fully dissolved and the product is evenly mixed in the spray tank before continuing.
7. Water-dispersible products (dry flowables, wettable powders, suspension concentrates, or suspo-emulsions)
8. Water-soluble products (such as XtendiMax® With VaporGrip® Technology)
9. Emulsifiable concentrates (such as oil concentrate when applicable)
10. Water-soluble additives (when applicable)
11. Add remaining quantity of water.

Maintain constant agitation during application

8.3 Adjuvants, Drift Reducing Adjuvants, Surfactants, and Other Tank Mixed Products

See Section 8.0 TANK MIXING INSTRUCTIONS for tank mixing instructions for adjuvants, drift reducing adjuvants, surfactants, and other tank mixed products.

9.0 APPLICATION EQUIPMENT AND TECHNIQUES

DO NOT APPLY THIS PRODUCT USING AERIAL SPRAY EQUIPMENT.

XtendiMax® With VaporGrip® Technology can be applied to actively growing weeds as broadcast, band, or spot spray applications using water as a carrier. For best results, treat weeds early when they are relatively small (less than 4 inches). Timely application to small weeds early in the season will improve control and reduce weed competition. Refer to Table 1 for XtendiMax® With VaporGrip® Technology application rates for control or suppression by weed type and growth stage. For crop-specific application timing and other details, refer to the CROP-SPECIFIC INFORMATION section of this label.

APPLY THIS PRODUCT USING PROPERLY MAINTAINED AND CALIBRATED EQUIPMENT CAPABLE OF DELIVERING THE REQUIRED VOLUMES.

Using a hooded sprayer or other drift reduction technology in combination with approved nozzles may further reduce drift potential.

Cultivation: Do not cultivate within 7 days after applying this product.

Table 1. XtendiMax® With VaporGrip® Technology Application Rates for Control or Suppression by Weed Type and Growth Stage
Use rate limitations are given in sections 10 (RESTRICTIONS), 11 (CROP-SPECIFIC INFORMATION), and 12 (CROPS WITH XTEND TECHNOLOGY)

Weed Type and Stage	Rate Per Acre	Weed Type and Stage	Rate Per Acre
Annual[1]		**Perennial**	
Small, actively growing	11 – 22 fluid ounces	Top growth suppression	11 – 22 fluid ounces
Established weed growth	22 – 33 fluid ounces	Top growth control and root suppression	22 – 44 fluid ounces
		Noted perennials (footnote 1 in Section 13.0).	44 fluid ounces
		Other perennials (without footnote 1 in Section	44 fluid ounces

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		13.0)[3]	
Biennial Rosette diameter 1 – 3 inches Rosette diameter 3 inches or more Bolting	 11 – 22 fluid ounces 22 – 44 fluid ounces 44 fluid ounces	**Woody Brush & Vines** Top growth suppression Top growth control[2,3] Stems and stem suppression[3]	 22 – 44 fluid ounces 44 fluid ounces 44 fluid ounces

[1] Rates below 11 fluid ounces per acre may provide control or suppression but should typically be applied with other herbicides that are effective on the same species and biotype.
[2] Woody Species listed in section 13.0 may require tank mixes for adequate top growth control.
[3] DO NOT broadcast apply more than 44 ounces per acre for a single application and DO NOT exceed broadcast applications of more than 88 ounces per acre within the growing season when a sequential application is needed for control. Use the higher rate when treating dense vegetation or perennial weeds with established root growth. Perennials and Woody Species are defined as those listed in Section 13.0.

9.1 Spray Drift Management

Do not allow herbicide solution to mist, drip, drift or splash onto desirable vegetation because severe injury or destruction to desirable broadleaf plants could result.

The most effective way to reduce drift potential is to apply large droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if the application is made improperly, or under unfavorable environmental conditions (see the **"Temperature and Humidity"** and "**Temperature Inversions"** sections of this label).

9.1.1 Sprayer Setup

The following sprayer setup requirements for drift management must be followed:

- **Nozzle type.** The applicator must use an approved nozzle within a specified pressure range as found at www.xtendimaxapplicationrequirements.com when applying XtendiMax® With VaporGrip® Technology. Do not use any other nozzle and pressure combination not specifically listed on this website.

- **Spray Volume.** The applicator must apply this product in a **minimum of 15 gallons of spray solution per acre**. See Section 8.0 for information on approved tank mix products.

- **Equipment Ground Speed.** Do not exceed a **ground speed of 15 miles per hour**. Select a ground speed that will deliver the desired spray volume while maintaining the desired spray pressure, but slower speeds generally result in better spray coverage and deposition on the target area. Provided the applicator can maintain the required nozzle pressure, it is recommended that tractor speed is reduced to 5 miles per hour at field edges.

- **Spray boom Height.** Do not exceed a **boom height of 24 inches** above target pest or crop canopy. Excessive boom height will increase the drift potential.

- **Wind Speed.** Do not apply when wind speeds are **less than 3 MPH or greater than 10 MPH**. Only apply when wind speed at boom height is between 3 and 10 mph.

9.1.2 Temperature and Humidity

When making applications in low relative humidity or temperatures above 91 degrees Fahrenheit, set up equipment to produce larger droplets to compensate for evaporation (for example: increase orifice size and/or increase spray volume as directed on www.xtendimaxapplicationrequirements.com). Larger droplets have a lower surface to volume ratio and can be impacted less by temperature and humidity. Droplet evaporation is most severe when conditions are both hot and dry.

9.1.3 Temperature Inversions

Do not apply this product during a temperature inversion as the off-target movement potential is high.
In general, temperature inversions are more likely during nighttime hours. Applications of this product may ONLY occur one hour after sunrise though two hours before sunset.

- During a temperature inversion, the atmosphere is very stable and vertical air mixing is restricted, which can cause small, suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light, variable winds common during inversions.
- Temperature inversions can be characterized by increasing temperatures with altitude and can be common on evenings and nights with limited cloud cover and light to no wind. Cooling of air at the earth's surface takes place and warmer air is trapped above it. Temperature inversions can begin to form as the sun sets and often continue into the morning.
- Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.
- The inversion will typically dissipate with increased winds (above 3 miles per hour) or at sunrise when the surface air begins to warm (generally 3°F from morning low).

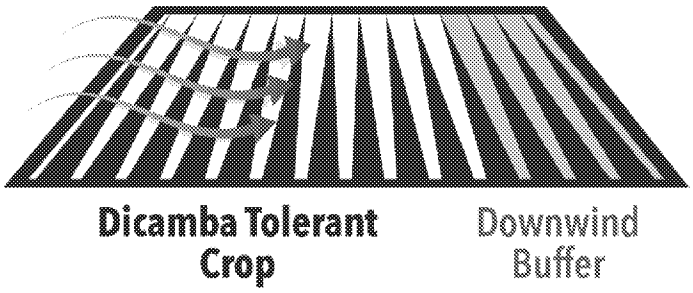
9.1.4 Buffer Requirements and Protection of Sensitive Crops

Do not apply under circumstances where drift may occur to food, forage, or other plantings that might be damaged or the crops rendered unfit for sale, use, or consumption.

9.1.4.a. Buffer Requirement

The applicator **must always maintain** a 110 foot downwind buffer (when applying up to 22 fluid ounces of this product per acre) or a 220 foot downwind buffer (when applying greater than 22 up to 44 fluid ounces of this product per acre) between the last treated row and the nearest downwind field edge (in the direction the wind is blowing).

If you have questions regarding Buffer Requirement contact Bayer at 1-844-RRXTEND prior to application.



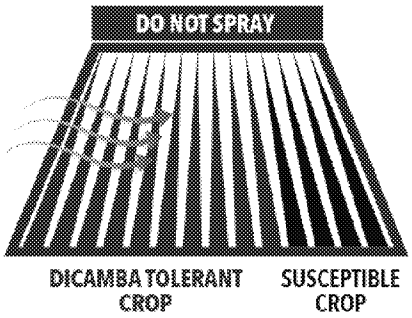
The following areas may be included in the buffer distance calculation when directly adjacent to the treated field edges:

- Roads, paved or gravel surfaces, mowed and/or managed areas adjacent to field such as rights of way.
- Planted agricultural fields containing: corn, dicamba tolerant cotton, dicamba tolerant soybean, sorghum, proso millet, small grains and sugarcane. If the applicator intends to include such crops as dicamba tolerant cotton and/or dicamba tolerant soybeans in the buffer distance calculation, the applicator must confirm the crops are in fact dicamba tolerant.
- Agricultural fields that have been prepared for planting
- Areas covered by the footprint of a building, silo, or other man made structure with walls and or roof.

9.1.4.b. **Sensitive Crops**

DO NOT APPLY this product when the wind is blowing toward adjacent non-dicamba tolerant sensitive crops; this includes **NON-DICAMBA TOLERANT SOYBEAN AND COTTON.**

It is important for the applicator to be aware that wind direction may vary during the application. If wind direction shifts such that the wind is blowing toward adjacent non-dicamba tolerant sensitive crops, the applicator must cease the application.



Before making an application, consult a sensitive crop registry (such as FieldWatch); and survey adjacent fields and confirm the crops/areas surrounding the field prior to application. At a minimum, records must include the name of the sensitive crop registry and the date it was consulted and documentation of adjacent crops/areas and the date the survey was conducted.

Sensitive crops include, but are not limited to non-dicamba tolerant soybeans and cotton, tomatoes and other fruiting vegetables (EPA crop group 8), fruit trees, cucurbits (EPA crop group 9), grapes, beans, flowers, ornamentals, peas, potatoes, sunflower, tobacco, other broadleaf plants, and including plants in a greenhouse. Severe injury or destruction could occur if any contact between this product and these plants occurs.

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If you have questions regarding sensitive crop registries contact Bayer at 1-844-RRXTEND prior to application.

9.1.5 Application Awareness

AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR.

The interaction of equipment and weather related factors must be monitored to maximize performance and on-target spray deposition. The applicator is responsible for considering all of these factors when making a spray decision. The applicator is responsible for compliance with state and local pesticide regulations, including any state or local pesticide drift regulations.

9.2 Ground Application (Banding)

When applying XtendiMax® With VaporGrip® Technology by banding, determine the amount of herbicide and water volume needed using the following formula:

$$\frac{\text{Bandwidth in inches}}{\text{Row width in inches}} \times \text{Broadcast rate per acre} = \text{Banding herbicide rate per acre}$$

$$\frac{\text{Bandwidth in inches}}{\text{Row width in inches}} \times \text{Broadcast volume per acre} = \text{Banding water volume per acre}$$

9.3 Ground Application (Broadcast)

Water Volume: Use a **minimum of 15 gallons** of spray solution per broadcast acre for optimal performance. Use 20 gallons per acre when treating dense or tall vegetation.

Application Equipment: Select nozzles (refer to section 9.1.1 Nozzle type of this product label) designed to produce minimal amounts of fine spray particles. Spray with nozzles as close to the weeds as practical for good weed coverage.

Using a hooded sprayer or other drift reduction technology in combination with approved nozzles may further reduce drift potential.

9.4 Ground Application (Wipers)

XtendiMax® With VaporGrip® Technology may be applied through wiper application equipment to control or suppress actively growing broadleaf weeds, brush and vines. Use a solution containing 1 part XtendiMax® With VaporGrip® Technology to 1 part water. Do not apply greater than 1 lb dicamba acid equivalent (1 quart of this product) per acre per application. Do not contact desirable vegetation with herbicide solution. Wiper application may be made to crops (including pastures) and non-cropland areas described in this label except for non-dicamba-tolerant cotton, sorghum, and non-dicamba-tolerant soybean.

9.5 Proper Spray System Equipment Cleanout

You must ensure that the spray system used to apply this product is clean before using this product.

Failure to properly clean the entire spray system can result in inadvertent contamination of the spray system. Small quantities of dicamba may cause injury to non-dicamba tolerant soybeans and other sensitive crops (see Section 9.1.4 of this label for more information).

Inadvertent contamination can also occur in equipment used for bulk product handling and mixing prior to use in the spray system. Care should be taken to reduce contamination not only in the spray system but in any equipment used to transfer or deliver product. For example, bulk handling and mixing equipment containing this product should be segregated when possible to reduce potential for cross-contamination. Consider using block and check valves to avoid backflow during transfer. Piping should be reviewed to ensure there not potential for product build-up. Dedicated nurse trucks and tender equipment should be used when possible.

Clean equipment immediately after using this product, using a triple rinse procedure as follows:

1. After spraying, drain the sprayer (including boom and lines) immediately. Do not allow the spray solution to remain in the spray boom lines overnight prior to flushing.
2. Flush tank, hoses, boom and nozzles with clean water. If equipped, open boom ends and flush.
3. Inspect and clean all strainers, screens and filters.
4. Prepare a cleaning solution with a commercial detergent or sprayer cleaner or ammonia according to the manufacturer's directions.
5. Take care to wash all parts of the tank, including the inside top surface. Start agitation in the sprayer and thoroughly recirculate the cleaning solution for at least 15 minutes. All visible deposits must be removed from the spraying system.
6. Flush hoses, spray lines and nozzles for at least 1 minute with the cleaning solution.
7. Remove nozzles, screens and strainers and clean separately in the cleaning solution after completing the above procedures.
8. Drain pump, filter and lines.
9. Rinse the complete spraying system with clean water.
10. Clean and wash off the outside of the entire sprayer and boom.
11. All rinse water must be disposed of in compliance with local, state, and federal guidelines.

10.0 ADDITIONAL RESTRICTIONS

Maximum Application Rates: The maximum application or use rates stated throughout this label are given in units of volume (fluid ounces or quarts) of this product per acre. However, the maximum allowed application rates apply to this product combined with the use of any and all other herbicides containing the active ingredients dicamba, whether applied separately or as a tank mixture, on a basis of total pounds of dicamba (acid equivalents) per acre. If more than one dicamba-containing product is applied to the same site within the same year, you must ensure that the total use of dicamba (pounds acid equivalents) does not exceed 2 pounds/A per year from all applications. See the INGREDIENTS section of this label for necessary product information.

Maximum seasonal use rate: Refer to Table 2. Crop-Specific Restrictions for crop-specific maximum seasonal use rates. Do not exceed 88 fluid ounces of XtendiMax® With VaporGrip® Technology (2 pounds acid equivalent) per acre, per year.

Preharvest Interval (PHI): Refer to the CROP-SPECIFIC INFORMATION section for preharvest intervals.

Restricted Entry Interval (REI): 24 hours

Crop Rotational Restrictions

No rotational cropping restrictions apply when rotating to Roundup Ready 2 Xtend® Soybeans, XtendFlex® Soybeans, or cotton seed with XtendFlex® Technology (including Bollgard® 3 XtendFlex® Cotton, Bollgard II® XtendFlex® Cotton, or XtendFlex® Cotton). For other crops the interval between application and planting rotational crop is given below. When counting days from the application of this product, do not count days when the ground is frozen. Planting at intervals less than specified below may result in crop injury. Moisture is essential for the degradation of this herbicide in soil. If dry weather prevails, use cultivation to allow herbicide contact with moist soil.

Planting/replanting restrictions at application rates of 33 fluid ounces of this product per acre per season or less: Follow the planting restrictions in the directions for use for Preplant application in the Crop Specific Information section of this label. For corn, cotton (except cotton seed with XtendFlex® Technology), sorghum, and soybean (except Roundup Ready 2 Xtend® Soybean and XtendFlex® Soybean), follow the planting restrictions in the directions for use for preplant application in **Section 11. Crop-Specific Information** of this label. Do not plant barley, oat, wheat, and other grass seedings for 15 days for every 11 fluid ounces of this product applied per acre east of the Mississippi River and 22 days for every 11 fluid ounces per acre applied west of the Mississippi River. No planting restrictions apply beyond 120 days after application of this product.

Planting/replanting restrictions at application rates of more than 33 fluid ounces and up to 88 fluid ounces of this product per acre per season: Wait a minimum of 120 days after application of this product before planting corn, sorghum and cotton (except cotton seed with XtendFlex® Technology) east of the Rocky Mountains and before planting all other crops (except Roundup Ready 2 Xtend® Soybean and XtendFlex® Soybean) grown in areas receiving 30 inches or more rainfall annually. Wait a minimum of 180 days before planting crops in areas with less than 30 inches of annual rainfall. Wait a minimum of 30 days for every 22 fluid ounces of this product applied per acre before planting barley, oat, wheat, and other grass seedings east of the Mississippi River and 45 days for every 22 fluid ounces of this product applied per acre west of the Mississippi River.

Table 2. Crop-Specific Restrictions[1]

Crop	Maximum Rate Per Acre Per Application (fl oz)	Maximum Rate Per Acre Per Season (fl oz)	Livestock Grazing or Feeding
Asparagus	22	22	Yes
Barley; Fall Spring	11 11	16.5 15	Yes
Conservation Reserve Program (CRP)	44	88	Yes
Corn	22	33	Yes[2]
Cotton	11	11	Yes

Cotton with XtendFlex Technology	44	88	Yes
Fallow Ground	44	88	Yes
Grass grown for seed	44	88	Yes
Oats	5.5	5.5	Yes
Pastureland	44	44	Yes
Proso Millet	5.5	5.5	Yes
Small grains grown for grass, forage, fodder, hay and/or pasture	22	22	Yes
Sorghum	11	22	Yes
Soybean	44	44	Yes
Roundup Ready 2 Xtend Soybean and XtendFlex Soybean	44	88	Yes
Sugarcane	44	88	Yes
Triticale	5.5	5.5	Yes
Sod farms and farmstead turf	44	44	Yes
Wheat	11	22	Yes
[1]Refer to section **11. CROP-SPECIFIC INFORMATION** and section **12. CROPS WITH XTEND TECHNOLOGY** for more details. [2]Once the crop reaches the ensilage (milk) stage or later in maturity			

11.0 CROP-SPECIFIC INFORMATION

Read Sections: 8.0 for Tank Mixing Instructions and 9.1.4 for Buffer Requirements and Sensitive Crops for information on tank mixing, buffer requirements, and sensitive crops.

11.1 Asparagus

Apply XtendiMax® With VaporGrip® Technology to emerged and actively growing weeds in 40 - 60 gallons of diluted spray per treated acre immediately after cutting the field, but at least 24 hours before the next cutting. Multiple applications may be made per growing season.

If spray contacts emerged spears, crooking (twisting) of some spears may result. If such crooking occurs, discard affected spears.

Rates: Apply 11-22 fluid ounces of XtendiMax® With VaporGrip® Technology to control annual sowthistle, black mustard, Canada and Russian thistle, and redroot pigweed (carelessweed).

Apply 22 fluid ounces of XtendiMax® With VaporGrip® Technology to control common chickweed, field bindweed, nettleleaf goosefoot, and wild radish. Up to 2 applications may be made per growing season. Do not exceed a total of 22 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre, per crop year.

Do not harvest prior to 24 hours after treatment.

[Optional: Do not use in the Coachella Valley of California]

11.2 Between Crop Applications

Preplant Directions (Postharvest, Fallow, Crop Stubble, Set-Aside) for Broadleaf Weed Control:

XtendiMax® With VaporGrip® Technology can be applied either postharvest in the fall, spring, or summer during the fallow period or to crop stubble/set-aside acres. Apply XtendiMax® With VaporGrip® Technology as a broadcast or spot treatment to emerged and actively growing weeds after crop harvest (postharvest) and before a killing frost or in the fallow cropland or crop stubble the following spring or summer.

See the "Crop Rotational Restrictions" in Section 10 of this label for the recommended interval between application and planting to prevent crop injury.

Rates and Timings:

Apply 5.5 – 44 fluid ounces of XtendiMax® With VaporGrip® Technology per acre. Refer to Table 1 to determine use rates for specific targeted weed species. For best performance, apply XtendiMax® With VaporGrip® Technology when annual weeds are less than 4 inches tall, when biennial weeds are in the rosette stage and to perennial weed regrowth in late summer or fall following a mowing or tillage treatment. The most effective control of upright perennial broadleaf weeds such as Canada thistle and Jerusalem artichoke occurs if XtendiMax® With VaporGrip® Technology is applied when the majority of weeds have at least 4 – 6 inches of regrowth or for weeds such as field bindweed and hedge bindweed that are in or beyond the full bloom stage.

Avoid disturbing treated areas following application. Treatments may not kill weeds that develop from seed or underground plant parts such as rhizomes or bulblets, after the effective period for XtendiMax® With VaporGrip® Technology. For seedling control, a follow-up program or other cultural practices could be instituted. For small grain in-crop uses of XtendiMax® With VaporGrip® Technology, refer to the small grain section for details.

11.3 Conservation Reserve Program (CRP)

XtendiMax® With VaporGrip® Technology is recommended for use on both newly seeded and established grasses grown in Conservation Reserve or federal Set-Aside Programs. Treatments of XtendiMax® With VaporGrip® Technology will injure or may kill alfalfa, clovers, lespedeza, wild winter peas, vetch, and other legumes.

Newly Seeded Areas

XtendiMax® With VaporGrip® Technology may be applied either preplant or postemergence to newly seeded grasses or small grains such as barley, oats, rye, sudanqrass, wheat, or other grain species grown as a cover crop. Postemergence applications may be made after seedling grasses exceed the 3-leaf stage. Rates of XtendiMax® With VaporGrip® Technology greater than 22 fluid ounces per treated acre may severely injure newly seeded grasses.

Preplant applications may injure new seedlings if the interval between application and grass planting is less than 45 days per 22 fluid ounces of XtendiMax® With VaporGrip® Technology applied per treated acre west of the Mississippi River or 20 days per 22 fluid ounces applied east of the Mississippi River.

Established Grass Stands

Established grass stands are perennial grasses planted one or more seasons prior to treatment. Certain species (bentgrass, carpetgrass, smooth brome, buffalograss, or St. Augustinegrass) may be injured when treated with more than 22 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre.

When applied at recommended rates, XtendiMax® With VaporGrip® Technology will control many annual and biennial weeds and provide control or suppression of many perennial weeds.

Rates and Timings

Apply 5.5 - 44 fluid ounces of XtendiMax® With VaporGrip® Technology per acre. Refer to **Table 1** for rates based on target weed species. Retreatments may be made as needed; however, do not exceed a total of 88 fluid ounces (4 pints) of XtendiMax® With VaporGrip® Technology per acre per year.

11.4 Corn (Field, Pop, Seed, And Silage)

Direct contact of XtendiMax® With VaporGrip® Technology with corn seed must be avoided. If corn seeds are less than 1.5 inches below the surface, delay application until corn has emerged.

Applications of XtendiMax® With VaporGrip® Technology to corn during periods of rapid growth may result in temporary leaning. Corn will usually become erect within 3 to 7 days. Cultivation should be delayed until after corn is growing normally to avoid breakage.

Corn may be harvested or grazed for feed once the crop has reached the ensilage (milk) stage or later in maturity.

Up to 2 applications of XtendiMax® With VaporGrip® Technology may be made during a growing season. Sequential applications must be separated by 2 weeks or more.

Do not apply XtendiMax® With VaporGrip® Technology to seed corn or popcorn without first verifying with your local seed corn company (supplier) the selectivity of XtendiMax® With VaporGrip® Technology on your inbred line or variety of popcorn. This precaution will help avoid potential injury of sensitive varieties.

Avoid using crop oil concentrates after crop emergence as crop injury may result. Use crop oil concentrates only in dry conditions when corn is less than 5 inches tall when applying XtendiMax® With VaporGrip® Technology.

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Use of sprayable fluid fertilizer as the carrier is not recommended for applications of XtendiMax® With VaporGrip® Technology made after corn emergence.

XtendiMax® With VaporGrip® Technology is not registered for use on sweet corn.

Preplant and Preemergence Application in No-Tillage Corn:

Rates: Apply 22 fluid ounces of XtendiMax® With VaporGrip® Technology per acre on medium- or fine-textured soils containing 2.5% or greater organic matter. Use 11 fluid ounces per acre on coarse soils (sand, loamy sand, and sandy loam) or medium- and fine-textured soils with less than 2.5% organic matter.

Timing: XtendiMax® With VaporGrip® Technology can be applied to emerging weeds before, during, or after planting a corn crop. When planting into a legume sod (e.g., alfalfa or clover), apply XtendiMax® With VaporGrip® Technology after 4 – 6 inches of regrowth has occurred

Preemergence Application in Conventional or Reduced Tillage Corn:

Rates: Apply 22 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre on medium- or fine-textured soils containing 2.5% organic matter or more. Do not apply to coarse textured soils (sand, loamy sand, or sandy loam) of any soil with less than 2.5% organic matter until after corn emergence (See Early Postemergence uses below).

Timing: XtendiMax® With VaporGrip® Technology may be applied after planting and prior to corn emergence. Pre-emergence application of XtendiMax® With VaporGrip® Technology does not require mechanical incorporation to become active. A shallow mechanical incorporation is recommended if application is not followed by adequate rainfall or sprinkler irrigation. Avoid tillage equipment (e.g., drags, harrows) which concentrates treated soil over seed furrow as seed damage could result.

Preemergence control of cocklebur, jimsonweed, and velvetleaf may be reduced if conditions such as low temperature or lack of soil moisture cause delayed or deep germination of weeds.

Early Postemergence Application in All Tillage Systems:

Rates: Apply 22 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre. Reduce the rate to 11 fluid ounces per treated acre if corn is growing on coarse textured soils (sand, loamy sand, and sandy loam).

Timing: Apply between corn emergence and the 5-leaf stage or 8 inches tall, whichever occurs first. Refer to Late Postemergence Applications if the sixth true leaf is emerging from whorl or corn is greater than 8 inches tall.

Late Postemergence Application:

Rate: Apply 11 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre.

Timing: Apply XtendiMax® With VaporGrip® Technology from 8 - 36 inch tall corn or 15 days before tassel emergence, whichever comes first. For best performance, apply when weeds are less than 3 inches tall.

Apply directed spray when corn leaves prevent proper spray.

11.5 Cotton

For directions for use with crops with Xtend Technology see the "CROPS WITH XTEND TECHNOLOGY" section of this label.

Preplant Application:

Apply up to 11 fluid ounces of XtendiMax® With VaporGrip® Technology per acre to control emerged broadleaf weeds prior to planting cotton in conventional or conservation tillage systems.

For best performance, apply XtendiMax® With VaporGrip® Technology when weeds are in the 2 - 4 leaf stage and rosettes are less than 2 inches across.

Following application of XtendiMax® With VaporGrip® Technology and a minimum accumulation of 1 inch of rainfall or overhead irrigation, allow a minimum of 21 days between treatment and planting per application of 11 fluid ounces per acre or less. This plant back interval must be observed prior to planting cotton.

Do not apply preplant to cotton west of the Rockies.

Do not make XtendiMax® With VaporGrip® Technology preplant applications to cotton in geographic areas with average annual rainfall less than 25 inches.

If applying a spring preplant treatment following application of a fall preplant (postharvest) treatment, then the combination of both treatments may not exceed 2 pounds acid equivalent per acre.

11.6 Grass Grown For Seed

Apply 11 - 22 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre on seedling grass after the crop reaches the 3 -5 leaf stage. Apply up to 44 fluid ounces of XtendiMax® With VaporGrip® Technology on well-established perennial grass. For best performance, apply XtendiMax® With VaporGrip® Technology when weeds are in the 2 - 4 leaf stage and rosettes are less than 2 inches across. Use the higher level of listed rate ranges when treating more mature weeds or dense vegetative growth.

To suppress annual grasses such as brome (downy and ripgut), rattail fescue, and windgrass, apply up to 44 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre in the fall or late summer after harvest and burning of established grass seed crops. Applications should be made immediately following the first irrigation when the soil is moist and before weeds have more than 2 leaves.

Do not apply XtendiMax® With VaporGrip® Technology after the grass seed crop begins to joint.

Refer to the Pasture, Hay, Rangeland, and General Farmstead section for grazing and feeding restrictions.

11.7 Proso Millet

For use only within Colorado, Nebraska, North Dakota, South Dakota, [Optional: **and Wyoming].**

XtendiMax® With VaporGrip® Technology combined with an appropriate tank-mix partner will provide control or suppression of the annual broadleaf weeds listed in **Section 13.**

11.8 Pasture, Hay, Rangeland, And General Farmstead (Noncropland)

XtendiMax® With VaporGrip® Technology is recommended for use on pasture, hay, rangeland, and general farmstead (non-cropland) (including fencerows and non-irrigation ditch banks) for control or suppression of broadleaf weed and brush species listed in Section 12.

XtendiMax® With VaporGrip® Technology may also be applied to non-cropland areas to control broadleaf weeds in noxious weed control programs, districts, or areas including broadcast or spot treatment of roadsides and highways, utilities, railroad, and pipeline rights-of-way. Noxious weeds must be recognized at the state level, but programs may be administered at state, county, or other level.

XtendiMax® With VaporGrip® Technology uses described in this section also pertain to grasses and small grains (forage sorghum, rye, sudangrass, or wheat) grown for grass, forage, fodder, hay and/or pasture use only. Grasses and small grains not grown for grass, forage, fodder, hay and/or pasture must comply with crop-specific uses in this label. Some perennial weeds may be controlled with lower rates of XtendiMax® With VaporGrip® Technology (refer to **Table 1**).

Rates and Timings

Refer to **Table 1** for rate selection based on targeted weed or brush species.

Rates above 44 fluid ounces of XtendiMax® With VaporGrip® Technology per acre are for spot treatments only. Spot treatment is defined as no more than a total of 1000 square feet of treated area per acre. Do not broadcast apply more than 44 fluid ounces per acre.

Retreatments may be made as needed; however, do not exceed a total of 44 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre during a growing season.

Grass grown for hay requires a minimum of 7-days between treatment and harvest.

Crop-Specific Restrictions

Do not apply more than 22 fluid ounces of XtendiMax® With VaporGrip® Technology per acre to small grains grown for pasture.

Newly seeded areas may be severely injured if more than 22 fluid ounces of XtendiMax® With VaporGrip® Technology is applied per acre.

Established grass crops growing under stress can exhibit various injury symptoms that may be more pronounced if herbicides are applied. Bentgrass, carpetgrass, buffalograss, and St. Augustin grass may be injured if more than 22 fluid ounces of XtendiMax® With VaporGrip® Technology is applied per acre. Usually colonial bent grasses are more tolerant than creeping types. Velvet grasses are most easily injured. Treatments will kill or injure alfalfa, clovers, lespedeza, wild winter peas, vetch, and other legumes.

Table 3 lists the timing restrictions for grazing or harvesting hay from treated fields. There are no grazing restrictions for animals other than lactating dairy animals.

Table 3. Timing Restrictions for Lactating Dairy Animals Following Treatment

XtendiMax® With VaporGrip® Technology Rate per Treated Acre (fluid ounces)	Days Before Grazing (days)	Days Before Hay Harvest (days)
Up to 22	7	37
Up to 44	21	51

- **Spot Treatments:** XtendiMax® With VaporGrip® Technology may be applied to individual clumps or small areas of undesirable vegetation using handgun or similar types of application equipment. Apply diluted sprays to allow complete wetting (up to runoff) of foliage and stems.

Cut Surface Treatments:

XtendiMax® With VaporGrip® Technology may be applied as a cut surface treatment for control of unwanted trees and prevention of sprouts of cut trees.

Rate: Mix 1 part XtendiMax® With VaporGrip® Technology with 1 - 3 parts water to create the application solution. Use the lower dilution rate when treating difficult-to-control species.

- **For Frill or Girdle Treatments**: Make a continuous cut or a series of overlapping cuts using an axe to girdle tree trunk. Spray or paint the cut surface with the solution.
- **For Stump Treatments:** Spray or paint freshly cut surface with the water mix. The area adjacent to the bark should be thoroughly wet.

Applications For Control of Dormant Multiflora Rose:

XtendiMax® With VaporGrip® Technology can be applied when plants are dormant as an undiluted spot treatment directly to the soil or as a Lo-Oil basal bark treatment using an oil-water emulsion solution.

- **Spot treatments:** Spot treatment applications of XtendiMax® With VaporGrip® Technology should be applied directly to the soil as close as possible to the root crown but within 6 - 8 inches of the crown. On sloping terrain, apply XtendiMax® With VaporGrip® Technology to the uphill side of the crown. Do not apply when snow or water prevents applying XtendiMax® With VaporGrip® Technology directly to the soil. The use rate of XtendiMax® With VaporGrip® Technology depends on the canopy diameter of the multiflora rose.

  Examples: Use 0.34, 1.38, or 3.23 fluid ounces of XtendiMax® With VaporGrip® Technology respectively, for 5, 10, or 15 feet canopy diameters.

- **Lo-Oil basal bark treatments:** For Lo-Oil basal bark treatments, apply XtendiMax® With VaporGrip® Technology to the basal stem region from the ground line to a height of 12 - 18 inches. Spray until runoff, with special emphasis on covering the root crown. For best results, apply XtendiMax® With VaporGrip® Technology when plants are dormant. Do not apply after bud break or when plants are showing signs of active growth. Do not apply when snow or water prevents applying XtendiMax® With VaporGrip® Technology to the ground line.

  To prepare approximately 2 gallons of a Lo-Oil spray solution:

  1) Combine 1.5 gallons of water, 1 ounce of emulsifier, 22 fluid ounces of XtendiMax® With VaporGrip® Technology, and 2.5 pints of No. 2 diesel fuel.
  2) Adjust the amounts of materials used proportionately to the amount of final spray solution desired.

  Do not exceed 8 gallons of spray solution mix applied per acre, per year.

11.9 SMALL GRAINS

11.9.1 Small Grains Not Underseeded To Legumes (fall- and spring-seeded barley, oat, triticale and wheat)

Refer to the specific crop sections below for use rates. When treating difficult to control weeds such as kochia, wild buckwheat, cow cockle, prostrate knotweed, Russian thistle, and prickly lettuce or when dense vegetative growth occurs, use the 4.12 – 5.5 fluid ounces of XtendiMax® With VaporGrip® Technology per acre.

Timings: Apply XtendiMax® With VaporGrip® Technology before, during, or after planting small grains. See specific small grain crop uses below for maximum crop stage. For best performance, apply XtendiMax® With VaporGrip® Technology when weeds are in the 2 - 3 leaf stage and rosettes are less than 2 inches across. Applying XtendiMax® With VaporGrip® Technology to small grains during periods of rapid growth may result in crop leaning. This condition is temporary and will not reduce crop yields.

Restrictions for small grain areas that are grazed or cut for hay are indicated in **Table 3** in Pasture, Hay, Rangeland, and General Farmstead section of this label.

11.9.2 Small Grains: Barley (fall- and spring-seeded)

Early season applications:

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Apply 2.75 – 5.5 fluid ounces of XtendiMax® With VaporGrip® Technology to fall-seeded barley prior to the jointing stage. Apply 2.75 – 4.12 fluid ounces of XtendiMax® With VaporGrip® Technology before spring-seeded barley exceeds the 4-leaf stage.

Note: For spring barley varieties that are seeded during the winter months or later, follow the rates and timings given for spring-seeded barley.

Preharvest applications:

XtendiMax® With VaporGrip® Technology can be used to control weeds that may interfere with harvest of fall and spring-seeded barley. Apply 11 fluid ounces of XtendiMax® With VaporGrip® Technology per acre as a broadcast or spot treatment to annual broadleaf weeds when barley is in the hard dough stage and the green color is gone from the nodes (joints) of the stern. Best results will be obtained if application can be made when weeds are actively growing, but before weeds canopy.

Allow a minimum of 7 days between treatment and harvest. Do not use preharvest-treated barley for seed unless a germination test is performed on the seed with an acceptable result of 95% germination or better.

[Optional: Do not make preharvest applications in California.]

11.9.3 Small Grains: Oats (fall- and spring-seeded)

Early season applications:

Apply 2.75 – 5.5 fluid ounces of XtendiMax® With VaporGrip® Technology per acre to fall-seeded oat prior to the jointing stage. Apply 2.75 – 5.5 fluid ounces of XtendiMax® With VaporGrip® Technology before spring-seeded oat exceed the 5-leaf stage.

Do not tank mix XtendiMax® With VaporGrip® Technology with 2,4-D in oat.

Allow a minimum of 7 days between treatment and harvest.

11.9.4 Small Grains: Triticale (fall- and spring-seeded)

Early season applications:

Apply 2.75 – 5.5 fluid ounces of XtendiMax® With VaporGrip® Technology to triticale.

Early season applications to fall-seeded triticale must be made prior to the jointing stage.

Early season applications to spring-seeded triticale must be made before triticale reaches the 6-leaf stage.

11.9.5 Small Grains: Wheat (fall- and spring-seeded)

Early Season Applications:

Apply 2.75 – 5.5 fluid ounces of XtendiMax® With VaporGrip® Technology to wheat unless using one of the fall-seeded wheat specific programs below.

Early season applications to fall-seeded wheat must be made prior to the jointing stage.

Early season applications to spring-seeded wheat must be made before wheat exceeds the 6-leaf stage.

Early developing wheat varieties such as TAM 107, Madison, or Wakefield must receive application between early tillering and the jointing stage. Care should be taken in staging these varieties to be certain that the application occurs prior to the jointing stage.

Specific use programs for fall-seeded wheat only:

[Optional: XtendiMax® With VaporGrip® Technology may be used at 8.25 fluid ounces on fall-seeded wheat in Western Oregon as a spring application only.] In Colorado, Kansas, New Mexico, Oklahoma, and Texas, up to 11 fluid ounces of XtendiMax® With VaporGrip® Technology may be applied on fall-seeded wheat after it exceeds the 3-leaf stage for suppression of perennial weeds, such as field bindweed. Applications may be made in the fall following a frost but before a killing freeze.

Preharvest applications:

XtendiMax® With VaporGrip® Technology can be used to control weeds that may interfere with harvest of wheat. Apply 11 fluid ounces XtendiMax® With VaporGrip® Technology per acre as a broadcast or spot treatment to annual broadleaf weeds when wheat is in the hard dough stage and the green color is gone from the nodes (joints) of the stem. Best results will be obtained if application can be made when weeds are actively growing but before weeds canopy.

Allow a minimum of 7 days between treatment and harvest. Do not use preharvest-treated wheat for seed unless a germination test is performed on the seed with an acceptable result of 95% germination or better.

[Optional: Do not make preharvest applications in California.]

11.10 Sorghum

XtendiMax® With VaporGrip® Technology may be applied preplant, postemergence, or preharvest in sorghum to control many annual broadleaf weeds and to reduce competition from established perennial broadleaf weeds, as well as control their seedlings.

Do not graze or feed treated sorghum forage or silage prior to mature grain stage. If sorghum is grown for pasture or hay, refer to Pasture, Hay, Rangeland, and General Farmstead section of this label for specific grazing and feeding restrictions.

Do not apply XtendiMax® With VaporGrip® Technology to sorghum grown for seed production.

Preplant Application:

Up to 11 fluid ounces of XtendiMax® With VaporGrip® Technology may be applied per acre if applied at least 15 days before sorghum planting.

Postemergence Application:

Up to 11 fluid ounces of XtendiMax® With VaporGrip® Technology per acre may be applied after sorghum is in the spike stage (all sorghum emerged) but before sorghum is 15 inches tall. For best performance, apply XtendiMax® With VaporGrip® Technology when the sorghum crop is in the 3 - 5 leaf stage and weeds are small (less than 3 inches tall). Use drop pipes (drop nozzles) if sorghum is taller than 8 inches. Keep the spray off the sorghum leaves and out of the whorl to reduce the likelihood of crop injury and to improve spray coverage of weed foliage. Applying XtendiMax® With VaporGrip® Technology to sorghum during periods of rapid growth may result in temporary leaning of plants or rolling of leaves. These effects are usually outgrown within 10 - 14 days. Delay harvest until 30 days after a preharvest treatment.

Preharvest uses in Texas and Oklahoma only: Up to 11 fluid ounces of XtendiMax® With VaporGrip® Technology per acre may be applied for weed suppression any time after the sorghum has reached the soft dough stage. An agriculturally approved surfactant may be used to improve performance (read Section 8.0 for tank mixing instructions). Delay harvest until 30 days after a preharvest treatment.

Split Application:

XtendiMax® With VaporGrip® Technology may be applied in split applications: preplant followed by postemergence or preharvest; or postemergence followed by preharvest. Do not exceed 11 fluid ounces per acre, per application or a total of 22 ounces per acre, per season.

11.11 Soybean

For directions for use with crops with Xtend Technology see the "CROPS WITH XTEND TECHNOLOGY" section of this label.

Preplant Applications:

Apply 5.5 -22 fluid ounces of XtendiMax® With VaporGrip® Technology per acre to control emerged broadleaf weeds prior to planting soybeans. Do not exceed 22 fluid ounces of XtendiMax® With VaporGrip® Technology per acre in a spring application prior to planting soybeans.

Following application of XtendiMax® With VaporGrip® Technology and a minimum accumulation of 1 inch rainfall or overhead irrigation, allow a minimum of 14 days between treatment and planting for applications of 11 fluid ounces per acre or less, and allow a minimum of 28 days between treatment and planting for applications of 22 fluid ounces per acre. These plant back intervals must be observed prior to planting soybeans or crop injury may occur.

Do not make XtendiMax® With VaporGrip® Technology preplant applications to soybeans in geographic areas with average annual rainfall less than 25 inches.

Preharvest Applications:

XtendiMax® With VaporGrip® Technology can be used to control many annual and perennial broadleaf weeds and control or suppress many biennial and perennial broadleaf weeds in soybean prior to harvest (refer to **Section 10**). Apply 11 - 44 fluid ounces of XtendiMax® With VaporGrip® Technology per acre as a broadcast or spot treatment to emerged and actively growing weeds after soybean pods have reached mature brown color and at least 75% leaf drop has occurred.

Do not harvest soybeans until 7 days after application.

Treatments may not kill weeds that develop from seed or underground plant parts, such as rhizomes or bulblets, after the effective period for XtendiMax® With VaporGrip® Technology. For seedling control, a follow-up program or other cultural practice could be instituted.

Do not use preharvest-treated soybean for seed unless a germination test is performed on the seed with an acceptable result of 95% germination or better.

Do not feed soybean fodder or hay following a preharvest application of XtendiMax® With VaporGrip® Technology.

[Optional: Do not make preharvest applications in California.]

11.12 Sugarcane

Apply XtendiMax® With VaporGrip® Technology for control of annual, biennial, or perennial broadleaf weeds listed in Section 11. Apply 11 - 33 fluid ounces of XtendiMax® With VaporGrip® Technology per acre for control of annual weeds, 22 - 44 fluid ounces for control of biennial weeds, and 44 fluid ounces for control or suppression of perennial weeds.

Use the higher level of listed rate ranges when treating dense vegetative growth.

A single retreatment may be made as needed, however, do not exceed a total of 88 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre during a growing season.

Timing: XtendiMax® With VaporGrip® Technology may be applied to sugarcane any time after weeds have emerged, but before the close-in stage of sugarcane. Applications of 44 fluid ounces of XtendiMax®

With VaporGrip® Technology per acre made over the top of actively growing sugarcane may result in crop injury.

When possible, direct the spray beneath the sugarcane canopy to minimize the likelihood of crop injury. Using directed sprays will also help maximize the spray coverage of weed foliage.

Allow a minimum of 87 days between treatment and harvest.

11.13 Farmstead Turf (noncropland) and Sod Farms

Do not use on residential sites.

For use in general farmstead (noncropland) and sod farms, apply 4.12 – 44 fluid ounces of XtendiMax® With VaporGrip® Technology per acre to control or suppress growth of many annual, biennial, and some perennial broadleaf weeds commonly found in turf. XtendiMax® With VaporGrip® Technology will also suppress many other listed perennial broadleaf weeds and woody brush and vine species. Refer to Table 1 for rate recommendations based on targeted weed or brush species and growth stage.

Repeat treatments may be made as needed; however, do not exceed 44 fluid ounces of XtendiMax® With VaporGrip® Technology per acre, per growing season.

Apply 30 - 200 gallons of diluted spray per treated acre (3 - 17 quarts of water per 1,000 square feet), depending on density or height of weeds treated and on the type of equipment used.

To avoid injury to newly seeded grasses, delay application of XtendiMax® With VaporGrip® Technology until after the second mowing. Furthermore, applying more than 16 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre may cause noticeable stunting or discoloration of sensitive grass species such as bentgrass, carpetgrass, buffalograss, and St. Augustinegrass.

In areas where roots of sensitive plants extend, do not apply more than 5.5 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre on coarse-textured (sandy-type) soils, or in excess of 8 fluid ounces per treated acre on fine-textured soils. Do not make repeat applications in these areas for 30 days and until previous applications of XtendiMax® With VaporGrip® Technology have been activated in the soil by rain or irrigation.

12.0 CROPS WITH XTEND® TECHNOLOGY

COTTON WITH XTENDFLEX® TECHNOLOGY (INCLUDING BOLLGARD II® XTENDFLEX® COTTON, BOLLGARD® 3 XTENDFLEX® COTTON, OR XTENDFLEX® COTTON), ROUNDUP READY 2 XTEND® SOYBEAN, AND XTENDFLEX® SOYBEAN CONTAIN A PATENTED GENE THAT PROVIDES TOLERANCE TO DICAMBA, THE ACTIVE INGREDIENT IN THIS PRODUCT. THIS PRODUCT WILL CAUSE SEVERE CROP INJURY OR DESTRUCTION AND YIELD LOSS IF APPLIED TO COTTON AND SOYBEAN THAT ARE NOT DICAMBA TOLERANT, INCLUDING COTTON AND SOYBEAN WITH A TRAIT ENGINEERED TO CONFER TOLERANCE TO AUXIN HERBICIDES OTHER THAN DICAMBA. FOLLOW THE REQUIREMENTS SET FORTH HEREIN TO PREVENT SEVERE CROP INJURY OR DESTRUCTION AND YIELD LOSS. CONTACT WITH FOLIAGE, GREEN STEMS, OR FRUIT OF CROPS, OR ANY DESIRABLE PLANTS THAT DO NOT CONTAIN A DICAMBA TOLERANCE GENE OR ARE NOT NATURALLY TOLERANT TO DICAMBA, COULD RESULT IN SEVERE PLANT INJURY OR DESTRUCTION.

Information on cotton with XtendFlex® Technology, Roundup Ready 2 Xtend® Soybean, and XtendFlex® Soybean can be obtained from your seed supplier or Monsanto representative. Cotton with XtendFlex® Technology, Roundup Ready 2 Xtend® Soybean, and XtendFlex® Soybean must be purchased from an authorized licensed seed supplier.

Note: Cotton with XtendFlex® Technology, Roundup Ready 2 Xtend® Soybean, and XtendFlex® Soybean and methods of controlling weeds and applying dicamba in a Cotton with XtendFlex® Technology, Roundup Ready 2 Xtend® Soybean, and XtendFlex® Soybean crop are protected under U.S. patent law. No license to use Cotton with XtendFlex® Technology, Roundup Ready 2 Xtend® Soybean, and XtendFlex® Soybean is granted or implied with the purchase of this herbicide product. Cotton with XtendFlex® Technology, Roundup Ready 2 Xtend® Soybean, and XtendFlex® Soybean are owned by Monsanto and a license must be obtained from Monsanto before using it. Contact your Authorized Monsanto Retailer for information on obtaining a license to Cotton with XtendFlex® Technology, Roundup Ready 2 Xtend® Soybean, and XtendFlex® Soybean.

12.1 Cotton with XtendFlex® Technology

DO NOT combine these instructions with other instructions in the "COTTON" Section of **this** label for use over crops that do not contain the dicamba tolerance trait.

TYPES OF APPLICATIONS: Burndown/Early Preplant; Preplant; At-Planting; Preemergence; Postemergence (In-crop)

USE INSTRUCTIONS
Apply this product in a minimum of 15 gallons of spray solution per acre as a broadcast application. For best performance, control weeds early when they are less than 4 inches. Timely application will improve control and reduce weed competition. Refer to the following table for maximum application rates of this product with cotton with XtendFlex® Technology.

Maximum Application Rates	
Combined total per year for all applications	88 fluid ounces per acre (2.0 lb. a.e. dicamba per acre)
Total of all Burndown/Early Preplant, Preplant, At-Planting, and Preemergence applications	44 fluid ounces per acre (1.0 lb. a.e. dicamba per acre)
Total of all in-crop applications up to mid-bloom stage or no more than 60 days after planting, whichever occurs first	44 fluid ounces per acre (1.0 lb. a.e. dicamba per acre)
Maximum In-crop, single application	22 fluid ounces per acre (0.5 lb. a.e. dicamba per acre)

a.e. – acid equivalent

Refer to Table 1 for application rates for weed type and growth stage controlled by this product. Maximum in-crop application rate should be used when treating tough to control weeds, dense vegetative growth or weeds with a well-established root system.

Burndown/Early Preplant, Preplant, At-Planting, Preemergence
USE INSTRUCTIONS: This product may be used to control broadleaf weeds and may be applied before, during or immediately after planting cotton with XtendFlex® Technology. Refer to the "WEEDS CONTROLLED" section of this label for XtendiMax® With VaporGrip® Technology for specific weeds controlled.

RESTRICTIONS:

- The maximum combined quantity of this product that may be applied for all burndown/early preplant, preplant, at-planting, and preemergence applications is 44 fluid ounces (1.0 lb a.e. dicamba) per acre per season.

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- The maximum application rate for a single, burndown/early preplant, preplant, at-planting, or preemergence application must not exceed 44 fluid ounces (1.0 lb a.e. dicamba) per acre.
- Do not apply less than 22 fluid ounces (0.5 lb a.e. dicamba) per acre.

Postemergence (In-crop)
USE INSTRUCTIONS: This product may be used to control broadleaf weeds in cotton with XtendFlex® Technology. In-crop applications of this product can be made up to mid-bloom stage or no more than 60 days after planting, whichever occurs first.

The maximum and minimum rate for any single, in-crop application is 22 fluid ounces (0.5 lb a.e. dicamba) per acre. Using the appropriate application rate may reduce the selection for resistant weeds. For best performance, control weeds early when they are less than 4 inches. To the extent permitted by applicable law, Monsanto Company does not warrant product performance of applications to labeled weeds greater than 4 inches in height. Sequential applications of this product may be necessary to control new flushes of weeds or on tough-to-control weeds. Allow at least 7 days between applications.

Postemergence applications of this product mixed with adjuvants may cause a leaf response to cotton with XtendFlex® Technology. The symptoms usually appear as necrotic spots on fully expanded leaves. EC-based products that are tank mixed with products containing dicamba may increase the severity of the leaf damage.

RESTRICTIONS:
- The combined total applied in-crop up to mid-bloom stage or no more than 60 days after planting, whichever occurs first, must not exceed 44 fluid ounces (1.0 lb a.e. dicamba) per acre and a maximum of two in-crop applications.
- The maximum single, in-crop application rate must not exceed 22 fluid ounces (0.5 lb a.e. dicamba).
- The combined total per year for all applications must not exceed 88 fluid ounces (2.0 lb a.e. dicamba) per acre. For example, if a preplant application of 44 fluid ounces (1.0 lb a.e. dicamba) per acre was made, then the combined total in-crop applications must not exceed 44 fluid ounces (1.0 lb a.e. dicamba) per acre.

12.2 Roundup Ready 2 Xtend® Soybean and XtendFlex® Soybean

DO NOT combine these instructions with other instructions in the "SOYBEAN" Section of **this** label for use over crops that do not contain the dicamba tolerance trait.

TYPES OF APPLICATIONS: Burndown/Early Preplant; Preplant; At-Planting; Preemergence; Postemergence (In-crop); Lay-By

USE INSTRUCTIONS
Apply this product in a minimum of 15 gallons of spray solution per acre as a broadcast application. For best performance, control weeds early when they are less than 4 inches. Timely application will improve control and reduce weed competition. Refer to the following table for maximum application rates of this product with Roundup Ready 2 Xtend® Soybean and XtendFlex® Soybean.

Maximum Application Rates	
Combined total per year for all applications	88 fluid ounces per acre (2.0 lb. a.e. dicamba per acre)
Total of all Burndown/Early Preplant, Preplant, At-Planting, and Preemergence applications	44 fluid ounces per acre (1.0 lb. a.e. dicamba per acre)

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Total of all In-crop applications from emergence prior to beginning bloom (R1 stage soybeans) or no more than 45 days after planting, whichever occurs first	44 fluid ounces per acre (1.0 lb. a.e. dicamba per acre)
Maximum In-crop, single application	22 fluid ounces per acre (0.5 lb. a.e. dicamba per acre)

a.e. – acid equivalent

Refer to Table 1 for application rates for weed type and growth stage controlled by this product. Maximum in-crop application rate should be used when treating tough to control weeds, dense vegetative growth or weeds with a well-established root system.

Burndown/Early Preplant, Preplant, At-Planting, Preemergence
USE INSTRUCTIONS: This product may be used to control broadleaf weeds and may be applied before, during or immediately after planting Roundup Ready 2 Xtend® Soybean and XtendFlex® Soybean. Refer to the "WEEDS CONTROLLED" section of this label for specific weeds controlled.

RESTRICTIONS:
- The maximum combined quantity of this product that may be applied for all burndown/early preplant, preplant, at-planting, and preemergence applications is 44 fluid ounces (1.0 lb a.e. dicamba) per acre per season.
- The maximum application rate for a single, burndown/early preplant, preplant, at-planting, or preemergence application must not exceed 44 fluid ounces (1.0 lb a.e. dicamba) per acre.
- Do not apply less than 22 fluid ounces (0.5 lb a.e. dicamba) per acre.

Postemergence (In-crop)
USE INSTRUCTIONS: This product may be used to control broadleaf weeds in Roundup Ready 2 Xtend® Soybean and XtendFlex® Soybean. In-crop applications of this product can be made prior to beginning bloom (R1 stage soybeans) or no more than 45 days after planting, whichever occurs first.

The maximum and minimum rate for any single, in-crop application is 22 fluid ounces (0.5 lb a.e. dicamba) per acre. Using the appropriate application rate may reduce the selection for resistant weeds. For best performance, control weeds early when they are less than 4 inches. To the extent permitted by applicable law, Monsanto Company does not warrant product performance of applications to labeled weeds greater than 4 inches in height.

A second application of this product may be necessary to control new flushes of weeds and can be made prior to beginning bloom (R1 stage soybeans) or no more than 45 days after planting, whichever occurs first. Allow at least 7 days between applications. For best results, apply XtendiMax® With VaporGrip® Technology after some weed re-growth has occurred.

Application of this product postemergence and under stressful environments may cause temporary loss of turgor, a response commonly described as leaf droop in Roundup Ready 2 Xtend® Soybean and XtendFlex® Soybean. Typically, affected plants recover in 1-3 days depending on the level of droop and environmental conditions.

RESTRICTIONS:
- The combined total application rate in-crop prior to beginning bloom (R1 stage soybeans) or no more than 45 days after planting, whichever occurs first, must not exceed 44 fluid ounces (1.0 lb. a.e. dicamba) per acre a maximum of two in-crop applications.
- Do not make in-crop applications of this product during and after beginning bloom (R1 stage soybeans) or more than 45 days after planting.
- The maximum single, in-crop application rate must not exceed 22 fluid ounces (0.5 lb. a.e. dicamba) per acre. The combined total per year for all applications must not exceed 88 fluid ounces (2.0 lb. a.e. dicamba) per acre.

13.0 WEEDS CONTROLLED

General Weed List, Including ALS-, Glyphosate, and Triazine-Resistant Biotypes

Annuals

Alkanet
Amaranth, Palmer, Powell, Spiny
Aster, Slender
Bedstraw, Catchweed
Beggarweed, Florida
Broomweed, Common
Buckwheat, Tartary, Wild
Buffalobur
Burclover, California
Burcucumber
Buttercup, Corn, Creeping, Roughseed, Western Field
Carpetweed
Catchfly, Nightflowering
Chamomile, Corn
Chevil, Bur
Chickweed, Common
Clovers
Cockle, Corn, Cow, White
Cocklebur, Common
Copperleaf, Hophornbeam
Cornflower (Bachelor Button)
Croton, Tropic, Woolly
Daisy, English
Dragonhead, American
Eveningprimrose, Cutleaf
Falseflax, Smallseed
Fleabane, Annual
Flixweed
Fumitory
Goosefoot, Nettleleaf
Hempnettle
Henbit
Jacobs-Ladder
Jimsonweed
Knawel (German Moss)
Knotweed, Prostrate
Kochia
Ladysthumb
Lambsquarters Common
Lettuce, Miners, Prickly
Mallow, Common, Venice
Marestail (Horseweed)
Mayweed
Morningglory, Ivyleaf, Tall
Mustard, Black, Blue, Tansy, Treacle, Tumble, Wild, Yellowtops
Nightshade, Black, Cutleaf
Pennycress, Field (Fanweed, Frenchweed, Stinkweed)
Pepperweed, Virginia (Peppergrass)
Pigweed, Prostrate, Redroot (Carelessweed), Rough, Smooth, Tumble
Pineappleweed
Poorjoe
Poppy, Red-horned
Puncturevine
Purslane, Common
Pusley, Florida
Radish, Wild
Ragweed, Common, Giant (Buffaloweed), Lance-Leaf
Rocket, London, Yellow
Rubberweed, Bitter (Bitterweed)
Salsify
Senna, Coffee
Sesbania, Hemp
Shepherdpurse
Sicklepod
Sida, Prickly (Teaweed)
Smartweed, Green, Pennsylvania
Sneezeweed, Bitter
Sowthistle, Annual, Spiny
Spanish Needles
Spikeweed, Common
Spurge, Prostrate, Leafy
Spurry, Corn
Starbur, Bristly
Starwort, Little
Sumpweed, Rough
Sunflower, Common (Wild), Volunteer
Thistle, Russian
Velvetleaf
Waterhemp, Common, Tall
Waterprimrose, Winged
Wormwood

Biennials

Burdock, Common
Carrot, Wild (Queen Anne's Lace)
Cockle, White
Eveningprimrose, Common
Geranium, Carolina
Gromwell
Knapweed, Diffuse, Spotted
Mallow, Dwarf
Plantain, Bracted
Ragwort, Tansy
Starthistle, Yellow
Sweetclover
Teasel
Thistle, Bull, Milk, Musk, Plumeless

Perennials

Alfalfa[1]
Artichoke, Jerusalem
Aster, Spiny, Whiteheath
Bedstraw, Smooth
Bindweed, Field, Hedge
Blueweed, Texas
Bursage, Woollyleaf[1] (Bur Ragweed, Povertyweed)
Buttercup, Tall
Campion, Bladder
Chickweed, Field, Mouseear

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Chicory[1]
Clover[1], Hop
Dandelion[1], Common
Dock[1] Broadleaf (Bitterdock), Curly
Dogbane, Hemp
Dogfennel[1] (Cypressweed)
Fern, Bracken
Garlic, Wild
Goldenrod, Canada, Missouri
Goldenweed, Common
Hawkweed
Henbane, Black[1]
Horsenettle, Carolina
Ironweed
Knapweed, Black, Diffuse, Russian[1], Spotted
Milkweed, Climbing, Common, Honeyvine, Western Whorled
Nettle, Stinging
Nightshade, Silverleaf (White Horsenettle)
Onion, Wild
Plaintain, Broadleaf, Buckhorn
Pokeweed
Ragweed, Western
Redvine
Sericia Lespedeza
Smartweed, Swamp
Snakeweed, Broom
Sorrel[1], Red (Sheep Sorrel)
Sowthistle[1], Perennial
Spurge, Leafy
Sundrops
Thistle, Canada, Scotch
Toadflex, Dalmatian
Tropical Soda Apple
Trumpetcreeper (Buckvine)
Vetch
Waterhemlock, Spotted
Waterprimrose, Creeping
Woodsorrel[1], Creeping, Yellow
Wormwood, Absinth, Louisiana
Yankeeweed
Yarrow, Common[1]

[1] Noted perennials may be controlled using lower rates of **XtendiMax® With VaporGrip® Technology** than those recommended for other listed perennial weeds.

Woody Species

Alder
Ash
Aspen
Basswood
Beech
Birch
Blackberry[2]
Blackgum[2]
Cedar[2]
Cherry
Chinquapin
Cottonwood
Creosotebush[2]
Cucumbertree
Dewberry[2]
Dogwood[2]
Elm
Grape
Hawthorn (Thornapple)[2]
Hemlock
Hickory
Honeylocust
Honeysuckle
Hornbeam
Huckleberry
Huisache
Ivy, Poison
Kudzu
Locust, Black
Maple
Mesquite
Oak
Oak, Poison
Olive, Russian
Persimmon, Eastern
Pine
Plum, Sand (Wild Plum)[2]
Poplar
Rabbitbrush
Redcedar, Eastern[2]
Rose[2], McCartney, Multiflora
Sagebrush, Fringed[2]
Sassafras
Serviceberry
Spicebush
Spruce
Sumac
Sweetgum[2]
Sycamore
Tarbush
Willow
Witchhazel
Yaupon[2]
Yucca[2]

[2]Growth suppression only

14.0 LIMIT OF WARRANTY AND LIABILITY

Monsanto Company warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes set forth in the Complete Directions for Use label booklet ("Directions") when used in accordance with those Directions under the conditions described therein. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, NO OTHER EXPRESS WARRANTY OR IMPLIED WARRANTY OF FITNESS FOR PARTICULAR PURPOSE OR MERCHANTABILITY IS MADE. This warranty is also subject to the conditions and limitations stated herein. Specifically, and without limiting the foregoing, MONSANTO MAKES NO RECOMMENDATION OR WARRANTY HEREIN REGARDING THE USE OF ANY PRODUCTS THAT MAY APPEAR ON THE WEBSITE REFERENCED IN THE TANK-MIXING INSTRUCTIONS HEREIN, REGARDLESS OF WHETHER SUCH PRODUCT IS USED ALONE OR IN A TANK MIX WITH XTENDIMAX® WITH VAPORGRIP® TECHNOLOGY. BUYER AND ALL USERS ARE SOLELY RESPONSIBLE FOR ANY LACK OF PERFORMANCE, LOSS, OR DAMAGE IN

CONNECTION WITH THE USE OR HANDLING OF ANY SUCH PRODUCT ALONE OR IN A TANK MIX WITH XTENDIMAX® WITH VAPORGRIP® TECHNOLOGY.

Buyer and all users shall promptly notify this Company of any claims whether based in contract, negligence, strict liability, other tort or otherwise.

To the extent consistent with applicable law, buyer and all users are responsible for all loss or damage from use or handling which results from conditions beyond the control of this Company, including, but not limited to, incompatibility with products other than those set forth in the Directions, application to or contact with desirable vegetation, failure of this product to control weed biotypes which develop resistance to dicamba, unusual weather, weather conditions which are outside the range considered normal at the application site and for the time period when the product is applied, as well as weather conditions which are outside the application ranges set forth in the Directions, application in any manner not explicitly set forth in the Directions, moisture conditions outside the moisture range specified in the Directions, or the presence of products other than those set forth in the Directions in or on the soil, crop or treated vegetation.

This Company does not warrant any product reformulated or repackaged from this product except in accordance with this Company's stewardship requirements and with express written permission from this Company.

For in-crop (over-the-top) uses on crops with Xtend® Technology, crop safety and weed control performance are not warranted by Monsanto when this product is used in conjunction with "brown bag" or "bin run" seed saved from previous year's production and replanted.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE LIMIT OF THE LIABILITY OF THIS COMPANY OR ANY OTHER SELLER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT (INCLUDING CLAIMS BASED IN CONTRACT, NEGLIGENCE, STRICT LIABILITY, OTHER TORT OR OTHERWISE) SHALL BE THE PURCHASE PRICE PAID BY THE USER OR BUYER FOR THE QUANTITY OF THIS PRODUCT INVOLVED, OR, AT THE ELECTION OF THIS COMPANY OR ANY OTHER SELLER, THE REPLACEMENT OF SUCH QUANTITY, OR, IF NOT ACQUIRED BY PURCHASE, REPLACEMENT OF SUCH QUANTITY. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, IN NO EVENT SHALL THIS COMPANY OR ANY OTHER SELLER BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES.

Upon opening and using this product, buyer and all users are deemed to have accepted the terms of this LIMIT OF WARRANTY AND LIABILITY which may not be varied by any verbal or written agreement. If terms are not acceptable, return at once unopened.

Bollgard II®, Bollgard®, Degree Xtra®, Field Master®, Harness®, Roundup Ready®, Roundup Ready 2 Xtend®, Roundup PowerMAX®, RT 3®, Roundup WeatherMAX®, XtendiMax®, XtendFlex® and VaporGrip® are registered trademarks of Monsanto Technology LLC. All other trademarks are the property of their respective owners.

EPA Reg. No. 524-617

EPA Establishment No. [insert appropriate est. no.]

Lot number [insert appropriate lot number]

Net contents [insert net contents]

Packed for:
MONSANTO COMPANY
800 N. Lindbergh Blvd.
ST. LOUIS, MISSOURI, 63167 U.S.A.

© [DATE]

Message

From: MARVIN, THOMAS [AG/1920] [thomas.marvin@bayer.com]
Sent: 10/31/2018 9:29:55 PM
To: Baris, Reuben [Baris.Reuben@epa.gov]; MARVIN, THOMAS [AG/1920] [thomas.marvin@bayer.com]; tina.bhakta@bayer.com
CC: Goodis, Michael [Goodis.Michael@epa.gov]; Kenny, Daniel [Kenny.Dan@epa.gov]
Subject: RE: label comments
Attachments: MASTER LABEL 524-617_10312018 - EPA comments.pdf; MASTER LABEL 524-617_10312018.V2.pdf

PDF attached. Looks like prior version we sent below at 3:58 was missing an element in Section 3.2 from the version you sent below at 12:28 that we intended to accept. Both your incoming and our revised accepted version attached in pdf.

Tom Marvin
Director, Federal Regulatory Affairs
1300 I Street, NW
Washington, DC 20005
Cell: 202-676-7846
Desk: 202-383-2851

From: Baris, Reuben [mailto:Baris.Reuben@epa.gov]
Sent: Wednesday, October 31, 2018 5:07 PM
To: MARVIN, THOMAS [AG/1920] <thomas.marvin@bayer.com>; tina.bhakta@bayer.com
Cc: Goodis, Michael <Goodis.Michael@epa.gov>; Kenny, Daniel <Kenny.Dan@epa.gov>
Subject: RE: label comments

We need a pdf.

REUBEN BARIS | PRODUCT MANAGER, TEAM 25 | HERBICIDE BRANCH
U.S. ENVIRONMENTAL PROTECTION AGENCY, OFFICE OF PESTICIDE PROGRAMS | (703) 305-7356

From: MARVIN, THOMAS [AG/1920] [mailto:thomas.marvin@bayer.com]
Sent: Wednesday, October 31, 2018 3:58 PM
To: Baris, Reuben <Baris.Reuben@epa.gov>; tina.bhakta@bayer.com
Cc: Goodis, Michael <Goodis.Michael@epa.gov>; Kenny, Daniel <Kenny.Dan@epa.gov>
Subject: RE: label comments

Revised label attached.

Tom Marvin
Director, Federal Regulatory Affairs
1300 I Street, NW
Washington, DC 20005
Cell: 202-676-7846
Desk: 202-383-2851

From: Baris, Reuben [mailto:Baris.Reuben@epa.gov]
Sent: Wednesday, October 31, 2018 12:28 PM
To: MARVIN, THOMAS [AG/1920] <thomas.marvin@bayer.com>; tina.bhakta@bayer.com
Subject: label comments

Much closer. Let me know if you want to discuss the adjacent comment.

REUBEN BARIS | PRODUCT MANAGER, TEAM 25 | HERBICIDE BRANCH
U.S. ENVIRONMENTAL PROTECTION AGENCY, OFFICE OF PESTICIDE PROGRAMS | (703) 305-7356

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Anyone obtaining access to and using this system acknowledges that all information on this system including but not limited to electronic mail, word processing, directories and files, constitutes private property belonging to the Company.
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If improper activity or use is suspected, all available information may be used by the Company for possible disciplinary action, prosecution, civil claim or any remedy or lawful purpose.

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If improper activity or use is suspected, all available information may be used by the Company for possible disciplinary action, prosecution, civil claim or any remedy or lawful purpose.

MASTER LABEL FOR EPA REG. NO. 524-617

RESTRICTED USE PESTICIDE

For retail sale to and use only by Certified Applicators

This labeling expires on 12/20/2020. ~~Do not use or distribute this product after 12/20/2020~~.

Primary Brand Name:

M1768 Herbicide

Alternate Brand Name:

XtendiMax® With VaporGrip® Technology

DICAMBA	GROUP	4	HERBICIDE

ACTIVE INGREDIENT:

Diglycolamine salt of dicamba (3,6-dichloro-*o*-anisic acid)* 42.8%
OTHER INGREDIENTS: 57.2%

TOTAL: 100.0%
* contains 29.0%, 3,6-dichloro-*o*-anisic acid (2.9 pounds acid equivalent per U.S. gallon or 350 grams per liter).

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RESTRICTED USE PESTICIDE

For retail sale to and use only by Certified Applicators

XtendiMax® With VaporGrip® Technology

Complete Directions for Use

This labeling expires on 12/20/2020. ~~Do not use or distribute this product after 12/20/2020~~.

EPA Reg. Number: 524-617

For weed control in asparagus, conservation reserve programs, corn, cotton, fallow croplands, general farmstead (noncropland), sorghum, grass grown for seed, hay, proso millet, pasture, rangeland, small grains, sod farms and farmstead turf, soybean, sugarcane, cotton with XtendFlex Technology, Roundup Ready 2 Xtend Soybean, and XtendFlex Soybean.

DICAMBA	GROUP	4	HERBICIDE

This label supersedes any previously issued labeling for this product, including previously issued supplemental labeling.

XtendiMax® With VaporGrip® Technology is approved by U.S. EPA for all uses specified on this label in the following states, subject to county restriction as noted: Alabama, Arkansas, Arizona, Colorado, Delaware, Florida (excluding Palm Beach County), Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Michigan, Minnesota, Mississippi, Missouri, Nebraska, New Jersey, New Mexico, New York, North Carolina, North Dakota, Oklahoma, Ohio, Pennsylvania, South Carolina, South Dakota, Tennessee (excluding Wilson County), Texas, Virginia, West Virginia, Wisconsin.

Check the registration status of each product in each state before using.

READ THE ENTIRE LABEL FOR **XTENDIMAX® WITH VAPORGRIP® TECHNOLOGY**
BEFORE PROCEEDING WITH THE USE DIRECTIONS CONTAINED IN THIS LABEL

READ AND FOLLOW ALL APPLICABLE DIRECTIONS, RESTRICTIONS, AND PRECAUTIONS ON THE CONTAINER LABEL AND BOOKLET AND WWW.XTENDIMAXAPPLICATIONREQUIREMENTS.COM.

Read the "LIMIT OF WARRANTY AND LIABILITY" statement at the end of the label before buying or using. If terms are not acceptable, return at once unopened.

Net contents:

EPA Establishment No.:

ED_005138A_00000127-00002

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1.0 INGREDIENTS

ACTIVE INGREDIENT:

Diglycolamine salt of dicamba (3,6-dichloro-*o*-anisic acid)* 42.8%
OTHER INGREDIENTS: 57.2%

TOTAL: 100.0%
* contains 29.0%, 3,6-dichloro-*o*-anisic acid (2.9 pounds acid equivalent per U.S. gallon or 350 grams per liter).

DICAMBA	GROUP	4	HERBICIDE

2.0 IMPORTANT PHONE NUMBERS

1. FOR PRODUCT INFORMATION OR ASSISTANCE IN USING THIS PRODUCT, CALL TOLL-FREE, 1-800-332-3111.
2. IN CASE OF AN EMERGENCY INVOLVING THIS HERBICIDE PRODUCT, OR FOR MEDICAL ASSISTANCE, CALL COLLECT, DAY OR NIGHT, (314)-694-4000.

IN CASE OF SPILL:

Steps to be taken in case material is released or spilled:

Dike and contain the spill with inert material (sand, earth, etc.) and transfer liquid and solid diking material to separate containers for disposal. Remove contaminated clothing, and wash affected skin areas with soap and water. Wash clothing before re-use. Keep the spill out of all sewers and open bodies of water.

3.0 PRECAUTIONARY STATEMENTS

3.1 Hazards to Humans and Domestic Animals

Keep out of reach of children.

CAUTION!

Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

FIRST AID	
IF IN EYES	• Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
IF SWALLOWED:	• Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give anything by mouth to an unconscious person.
IF ON SKIN OR CLOTHING:	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 to 20 minutes.

	• Call a poison control center or doctor for treatment advice.

- Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
- You can call **(314) 694-4000**, collect day or night, for emergency medical treatment information.
- This product is identified as **XtendiMax® With VaporGrip® Technology, EPA Registration No. 524-617.**

PERSONAL PROTECTIVE EQUIPMENT (PPE)

All mixers, loaders, applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks

See "Engineering Controls Statement" for additional requirements.
Follow the manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

ENGINEERING CONTROLS STATEMENT

When handlers use closed systems, or enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

IMPORTANT: When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for "all mixers, loaders, applicators and other handlers" and have such PPE immediately available for use in an emergency, such as a spill or equipment breakdown.

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

3.2 Environmental Hazards

Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters or rinsate. Apply this product only as directed on the label.

This chemical is known to leach through soil into ground water under certain conditions as a result of agricultural use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.

Ground and Surface Water Protection

Point source contamination - To prevent point source contamination, do not mix or load this pesticide product within 50 feet of wells (including abandoned wells and drainage wells), sink holes, perennial or intermittent streams and rivers, and natural or impounded lakes and reservoirs. Do not apply pesticide

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product within 50 feet of wells. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pad or properly diked mixing/loading areas as described below.

Mixing, loading, rinsing, or washing operations performed within 50 feet of a well are allowed only when conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be on or move across the pad. The pad must be self-contained to prevent surface water flow over or from the pad. The pad capacity must be maintained at 110% that of the largest pesticide container or application equipment used on the pad and have sufficient capacity to contain all product spills, equipment or container leaks, equipment wash waters, and rainwater that may fall on the pad. The containment capacity does not apply to vehicles delivering pesticide shipments to the mixing/loading site. States may have in effect additional requirements regarding wellhead setbacks and operational containment.

Care must be taken when using this product to prevent: a) back siphoning into wells, b) spills or c) improper disposal of excess pesticide, spray mixtures or rinsates. Check valves or anti-siphoning devices must be used on all mixing equipment.

Movement by surface runoff or through soil - Do not apply under conditions which favor runoff. Do not apply to impervious substrates such as paved or highly compacted surfaces in areas with high potential for ground water contamination. Ground water contamination may occur in areas where soils are permeable or coarse and ground water is near the surface. Do not apply to soils classified as sand with less than 3% organic matter and where ground water depth is shallow. To minimize the possibility of ground water contamination, carefully follow application rate recommendations as affected by soil type in the Crop Specific Information section of this label.

Movement by water erosion of treated soil - Do not apply or incorporate this product through any type of irrigation equipment nor by flood or furrow irrigation. Ensure treated areas have received at least one-half inch rainfall (or irrigation) before using tailwater for subsequent irrigation of other fields.

Endangered Species Concerns
Use of this product in a manner inconsistent with its labeling may pose a hazard to endangered or threatened species. When using this product, you must follow the measures contained in the Endangered Species Protection Bulletin for the area in which you are applying the product. To obtain Bulletins, no more than six months before using this product, consult https://www.epa.gov/endangered-species or call 1-844-447-3813. You must use the Bulletin valid for the month in which you will apply the product.

It is a Federal offense to use any pesticide in a manner that results in the death of an endangered species.

3.3 Physical or Chemical Hazards

Do not store or heat near oxidizing agents, hazardous chemical reaction may occur.

4.0 DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling. This product can only be used in accordance with the Directions for Use on this label. This labeling must be in the user's possession during application.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulations.

This is a restricted use pesticide.

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4.1 Training

Prior to applying this product in the 2019 growing season and each growing season thereafter, all applicator(s) applying this product must complete dicamba or auxin-specific training. If training is available and required by the state where the applicator intends to apply this product, the applicator must complete that training. If the state where the application is intended does not require auxin or dicamba-specific training, then the applicator must complete dicamba or auxin-specific training provided by one of the following sources: a) a registrant of a dicamba product approved for in-crop use with dicamba-tolerant crops, or b) a state or state-authorized provider.

4.2 Record Keeping

Record keeping is required for applications of this product. **The certified applicator must keep the following records for a period of two years**; records must be generated as soon as practical but no later than 72 hours after application and a record must be kept for each application of Xtendimax with VaporGrip Technology. Records must be made available to State Pesticide Control Official(s), USDA, and EPA upon request. An example form summarizing record keeping requirements can be found on www.xtendimaxapplicationrequirements.com.

1. All Items required by 7 CFR Part 110 (RECORDKEEPING ON RESTRICTED USE PESTICIDES BY CERTIFIED APPLICATORS) including:
    a. The brand or product name
    b. The EPA registration number
    c. The total amount applied
    d. The month, day, and year of application
    e. The location of the application
    f. The crop, commodity, stored product, or site of application
    g. The size of treated area
    h. The name of the certified applicator
    i. The certification number of the certified applicator
2. Training: Date and provider of required training completed and proof of completion.
3. Receipts of Purchase: Receipts or copies for the purchase of this product.
4. Product Label: A copy of this product label, and any state special local needs label that supplements this label.
5. Crop Planting Date: Record of the date at which the crop was planted.
6. Buffer Requirement: Record of the buffer distance calculation and any areas included within the buffer distance calculations as allowed in Section 9.1.4.a.
7. Sensitive Crops Awareness: Record that a sensitive crop registry was consulted and survey adjacent fields documenting the crops/areas surrounding the field prior to application. At a minimum, records must include the name of the sensitive crop registry and the date it was consulted and documentation of adjacent crops/areas and the date the survey was conducted (read Section 9.1.4.b for additional information).
8. Start and Finish Times of Each Application: Record of the time at which the application started and the time when the application finished.
9. Application Timing: Record of the type of application (for example: pre-emergence, post-emergence) and number of days after planting if post-emergence.
10. Air Temperature: Record of the air temperature in degrees Fahrenheit at the start and completion of each application.
11. Wind Speed and Direction: Record of the wind speed and direction (the direction from which the wind is blowing) at boom height at the start and completion of each application of this product (Read Section 9.1.1 for information on wind speed).

12. Nozzle and Pressure: Record of the spray nozzle manufacturer/brand, type, orifice size, and operating pressure used during each application of this product (Read Section 9.1.1 for information on nozzles and pressures.)
13. Tank Mix Products: Record of the brand names and EPA registration numbers (if available) for all products (pesticides, adjuvants, and other products) that were tank mixed with this product for each application (Read Section 8.0 for more information on tank mixing.)
14. Spray System Cleanout: Record of compliance with the section of this label titled Section 9.5: Proper Spray System Equipment Cleanout. At a minimum, records must include the confirmation that the spray system was clean before using this product and that the post-application cleanout was completed in accordance with Section 9.5.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about Personal Protective Equipment (PPE), and restricted-entry intervals. The requirements in this box only apply to uses of this product that are covered by the WPS.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 24 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as, plants, soil, or water is:

- Coveralls worn over short-sleeved shirt and short pants
- Chemical-resistant footwear plus socks
- Waterproof gloves
- Chemical-resistant headgear for overhead exposure
- Protective eyewear

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Do not enter or allow people (or pets) to enter the treated area until sprays have dried. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Do not enter or allow other people or pets to enter until sprays have dried.

5.0 STORAGE AND DISPOSAL

Proper pesticide storage and disposal are essential to protect against exposure to people and the environment due to leaks and spills, excess product or waste, and vandalism. Do not allow this product to contaminate water, foodstuffs, feed or seed by storage and disposal. Open dumping is prohibited. This product may not be mixed, loaded, or used within 50 feet of all wells including abandoned wells, drainage wells, and sinkholes. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pad or properly diked mixing/loading areas as described above

5.1 Pesticide Storage

Groundwater contamination may be reduced by diking and flooring of permanent liquid bulk storage sites with an impermeable material. Spillage or leakage should be contained and absorbed with clay granules, sawdust, or equivalent material for disposal.
Store in original container in a well-ventilated and away from food, pet food, feed, seed, fertilizers, and veterinary supplies. Avoid cross-contamination with other pesticides. Keep container closed to prevent spills and contamination.

5.2 Pesticide Disposal

To avoid wastes, use all material in this container, including rinsate, by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide

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disposal program. Such programs are often run by state or local governments or by industry. All disposal must be in accordance with applicable federal, state and local regulations and procedures.
[*Alternate PESTICIDE DISPOSAL statement for transport vehicles only:* To avoid wastes, empty as much product from this transport vehicle as possible for repackaging or use in accordance with label directions. If wastes cannot be avoided, offer remaining product or rinsate to a waste disposal facility or pesticide disposal program. All disposal must be in accordance with applicable federal, state and local regulations and procedures.]

5.3 Container Handling and Disposal

[*Optional label statement if applicable*: See container label for container handling and disposal instructions and refilling limitations.]

[*CONTAINER HANDLING AND DISPOSAL STATEMENTS AND REFILLING LIMITATIONS FOR CONTAINER LABELS*]

[*CONTAINER HANDLING AND DISPOSAL STATEMENT AND REFILLING LIMITATION FOR NONREFILLABLE RIGID CONTAINERS OF LESS THAN 1-GALLON CAPACITY*]

Nonrefillable container. Do not reuse or refill this container.

[*Alternate container statement:* Nonrefillable container. Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state.]

Triple rinse this container promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Then offer this container for recycling, if available. If recycling is not available, dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.

[*Alternate container disposal statement:* Once properly rinsed, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or Monsanto at 1-800-ROUNDUP (1-800-768-6387). If recycling is not available, dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.]

[*CONTAINER HANDLING AND DISPOSAL STATEMENT AND REFILLING LIMITATION FOR NONREFILLABLE RIGID PLASTIC 2.5-GALLON CONTAINERS AND OTHER NONREFILLABLE CONTAINERS OF GREATER THAN 1-GALLON BUT EQUAL TO OR LESS THAN 5-GALLON CAPACITY*]

Nonrefillable container. Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state.

[*Alternate container statement:* Nonrefillable container. Do not reuse or refill this container.]

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Triple rinse or pressure rinse (or equivalent) this container promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Once properly rinsed, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. [*Optional container disposal statement:* To find the nearest site, contact your chemical dealer or Monsanto at 1-800-ROUNDUP (1-800-768-6387)]. If recycling is not available, dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.

[*Alternate container disposal statement:* Then offer this container for recycling, if available. If recycling is not available, dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.]

[*CONTAINER HANDLING AND DISPOSAL STATEMENT AND REFILLING LIMITATION FOR NONREFILLABLE RIGID PLASTIC 30-GALLON CONTAINERS AND OTHER NONREFILLABLE CONTAINERS OF GREATER THAN 5-GALLON CAPACITY*]

Nonrefillable container. Do not reuse or refill this container.

[*Alternate container statement:* Nonrefillable container. Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state.]

Triple rinse or pressure rinse (or equivalent) this container promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Once properly rinsed, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. [*Alternate container disposal statement:* To find the nearest site, contact your chemical dealer or Monsanto at 1-800-ROUNDUP (1-800-768-6387)]. If recycling is not available,

dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.

[*Alternate container disposal statement:* Then offer the container for recycling, if available. If recycling is not available, dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.]

[*Optional container label statement:* Return Properly Rinsed Container to Monsanto for Recycling Contact: 1-800-ROUNDUP (1-800-768-6387)]

[*CONTAINER HANDLING AND DISPOSAL STATEMENT AND REFILLING LIMITATION FOR ALL REFILLABLE CONTAINERS, EXCEPT TRANSPORT VEHICLES*]

Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose.

Cleaning this container before refilling is the responsibility of the refiller. Cleaning this container before final disposal is the responsibility of the person disposing of the container.

To clean this container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer this container for recycling, if available.

[*Optional container disposal statement:* To obtain information about recycling refillable containers, contact Monsanto Company at 1-800-ROUNDUP (1-800-768-6387)]

[*Optional container label statement:* Return Properly Rinsed Container to Monsanto for Recycling, Call 1-800-ROUNDUP (1-800-768-6387)]

[*CONTAINER HANDLING AND DISPOSAL STATEMENT FOR ALL TRANSPORT VEHICLES AS DEFINED IN 40 CFR 156.3]*

THIS LABEL FOR USE WITH TRANSPORT VEHICLES ONLY

Emptied container retains vapor and product residue. Observe all precautions stated on this label until the container is cleaned, reconditioned or destroyed. Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, and worn-out threads and closures. Clean thoroughly before reuse for transportation of a material of different composition or before retiring this transport vehicle from service.

[Alternative label statement: NET CONTENTS: See Bill of Lading]

[Alternative label statement: LOT: See Bill of Lading]

[Alternative label statement: For Net Contents and Lot Number, see Bill of Lading]

6.0 PRODUCT INFORMATION

XtendiMax® With VaporGrip® Technology is approved by U.S. EPA for all uses specified on this label in the following states, subject to county restriction as noted: Alabama, Arkansas, Arizona, Colorado, Delaware, Florida (excluding Palm Beach County), Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Michigan, Minnesota, Mississippi, Missouri, Nebraska, New Jersey, New Mexico, New York, North Carolina, North Dakota, Oklahoma, Ohio, Pennsylvania, South Carolina, South Dakota, Tennessee (excluding Wilson County), Texas, Virginia, West Virginia, Wisconsin.

Additional state restrictions and requirements may apply. The applicator must comply with any additional state requirements and restrictions.

This product is a water-soluble formulation intended for control and suppression of many annual, biennials, and perennial broadleaf weeds, as well as woody brush and vines listed in the WEEDS CONTROLLED section of this label. This product may be used for control of these weeds in asparagus, corn, cotton, conservation reserve programs, fallow cropland, grass grown for seed, hay, proso millet, pasture, rangeland, general farmstead (noncropland), small grains, sod farms and farmstead turf, sorghum, soybean, sugarcane, Cotton with XtendFlex Technology, Roundup Ready 2 Xtend Soybean, and XtendFlex Soybean.

XtendiMax® With VaporGrip® Technology is a contact, systemic herbicide, which can have moderate residual control on small seeded broadleaf weeds, including waterhemp, lambsquarters and Palmer pigweed, depending on rainfall and soil type.

XtendiMax® With VaporGrip® Technology is readily absorbed by plants through shoot and root uptake, translocates throughout the plant's system, and accumulates in areas of active growth. XtendiMax® With VaporGrip® Technology interferes with the plant's growth hormones (auxins) resulting in death of many broadleaf weeds.

Failure to properly clean the entire spray system can result in inadvertent contamination of the spray system. You must ensure that the spray system used to apply this product is clean before using this product.

Rainfast period: Rainfall or irrigation occurring within 4 hours after postemergence applications may reduce the effectiveness of this product.

Refer to the CROP-SPECIFIC INFORMATION and CROPS WITH XTEND TECHNOLOGY sections for application timing and other crop-specific details.

6.1 Restrictions

The applicator must read the entire label, including product labeling and follow all restrictions for XtendiMax® With VaporGrip® Technology. Restrictions included, but are not limited to:

- DO NOT APPLY THIS PRODUCT AERIALLY.
- DO NOT TANK MIX WITH PRODUCTS CONTAINING AMMONIUM SALTS SUCH AS AMMONIUM SULFATE (AMS) AND UREA AMMONIUM NITRATE. Small quantities of AMS can greatly increase the volatility potential of dicamba. Read the TANK MIXING INSTRUCTIONS of this label (Section 8.0) for instructions regarding other tank mix products.
- DO NOT APPLY TO CROPS UNDER STRESS DUE TO LACK OF MOISTURE, HAIL DAMAGE, FLOODING, HERBICIDE INJURY, MECHANICAL INJURY, INSECTS, OR WIDELY FLUCTUATING TEMPERATURES AS INJURY MAY RESULT.
- DO NOT APPLY THROUGH ANY TYPE OF IRRIGATION EQUIPMENT. DO NOT TREAT IRRIGATION DITCHES OR WATER USED FOR CROP IRRIGATION OR DOMESTIC PURPOSES.

- DO NOT MAKE APPLICATION OF THIS PRODUCT IF RAIN THAT MAY EXCEED SOIL FIELD CAPACITY AND RESULT IN SOIL RUNOFF IS EXPECTED IN THE NEXT 24 HOURS

Review the entire label including, specific crop use direction sections for additional restrictions.

7.0 WEED RESISTANCE MANAGEMENT

DICAMBA	GROUP	4	HERBICIDE

Dicamba mimics auxin (a plant hormone) resulting in a hormone imbalance in sensitive plants that interferes with normal cell division, cell enlargement, and protein synthesis. Dicamba active ingredient is a Group 4 herbicide based on the mode of action classification system of the Weed Science Society of America. Any weed population can contain plants naturally resistant to Group 4 herbicides. Weed species resistant to Group 4 herbicides can be effectively managed utilizing another herbicide from a different Group, or by using other cultural or mechanical practices.

7.1 Weed Management Practices

Certain agronomic practices can delay or reduce the likelihood that resistant weed populations will develop and can be utilized to manage weed resistance once it occurs.

Do not use less than the labeled rate of this product in a single application. Using the appropriate application rate can minimize the selection for resistant weeds.

Proactively implementing diversified weed control strategies to minimize selection for weed populations resistant to one or more herbicides is a best practice. A diversified weed management program may include the use of multiple herbicides with different sites of action and overlapping weed spectrum with or without tillage operations and/or other cultural practices. Research has demonstrated that using the labeled rate and directions for use is important to delay the selection for resistance.

The continued effectiveness of this product depends on the successful implementation of a weed resistance management program.

To aid in the prevention of developing weeds resistant to this product:

- Scout fields before application to ensure herbicides and rates will be appropriate for the weed species and weed sizes present.
- Start with a clean field, using either a burndown herbicide application or tillage.
- Control weeds early when they are relatively small (less than 4 inches).
- Apply full rates of XtendiMax® With VaporGrip® Technology for the most difficult to control weed in the field at the specified time (correct weed size) to minimize weed escapes.
- Avoid tank mixtures with other herbicides that reduce the efficacy of this product (through antagonism), or with ones that encourage application rates of this product below those specified on this label.
- Scout fields after application to detect weed escapes or shifts in weed species.
- Control weed escapes before they reproduce by seed or proliferate vegetatively.
- Report any incidence of non-performance of this product against a particular weed species to your Monsanto retailer or representative or call 1-844-RRXTEND (1-844-779-8363).
- If resistance is suspected, treat weed escapes with an herbicide having a site of action other than Group 4 and/or use non-chemical methods to remove escapes, as practical, with the goal of preventing further seed production. EPA defines suspected herbicide resistance as the situation where the following three indicators occur at a site or location:

- Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds;
- A spreading patch of non-controlled plants of a particular weed species; and
- Surviving plants mixed with controlled individuals of the same species.

Additionally, users should follow as many of the following herbicide resistance management practices as is practical:

- Use a broad spectrum soil-applied herbicide with other sites of action as a foundation in a weed control program.
- Utilize sequential applications of herbicides with alternative sites of action.
- Rotate the use of this product with non-Group 4 herbicides.
- Avoid making more than two applications of dicamba and any other Group 4 herbicides within a single growing season unless mixed with an herbicide with a different mechanism of action with an overlapping spectrum for the difficult to control weeds.
- Incorporate non-chemical weed control practices, such as mechanical cultivation, crop rotation, cover crops and weed-free crop seeds, as part of an integrated weed control program.
- Use good agronomic principles that enhance crop development and crop competitiveness.
- Thoroughly clean plant residues from equipment before leaving fields suspected to contain resistant weeds.
- Manage weeds in and around fields, during and after harvest to reduce weed seed production.

Contact the local agricultural extension service, Monsanto representative, agricultural retailer or crop consultant for further guidance on weed control practices as needed.

7.2 Management of Dicamba-Resistant Biotypes

Appropriate testing is critical in order to determine if a weed is resistant to dicamba. Contact your Monsanto representative to determine if resistance in any particular weed biotype has been confirmed in your area, or visit on the Internet www.weedresistancemanagement.com or www.weedscience.org.

Monsanto Company is not responsible for any losses that result from the failure of this product to control dicamba-resistant weed biotypes.

The following good agronomic practices can reduce the spread of confirmed dicamba-resistant biotypes:

- If a naturally occurring resistant biotype is present in your field, this product may be tank-mixed or applied sequentially with an appropriately labeled herbicide with a different mode of action to achieve control (read Section 8.0 for more information on tank mixing).
- Cultural and mechanical control practices (e.g., crop rotation or tillage) can also be used as appropriate.
- Scout treated fields after herbicide application and control weed escapes, including resistant biotypes, before they set seed.
- Thoroughly clean equipment, as practical, for all weed seeds before leaving fields known to contain resistant biotypes.

8.0 TANK MIXING INSTRUCTIONS

Auxin herbicides such as dicamba have the potential to volatilize in lower pH spray mixtures. Knowing the pH of your spray mixture and making the appropriate adjustments to avoid a low pH spray mixture can reduce the potential for volatilization to occur. Talk to your local agricultural consultant, extension agent, or Bayer representative for recommendations to prevent low pH spray mixtures.

XtendiMax® With VaporGrip® Technology may only be tank-mixed with products that have been tested and found not to adversely affect the offsite movement potential of XtendiMax® With VaporGrip®

Technology. The applicator must check the website found at www.xtendimaxapplicationrequirements.com no more than 7 days before applying XtendiMax® With VaporGrip® Technology.

DO NOT tank mix any product with XtendiMax® With VaporGrip® Technology unless:

1. The intended tank-mix product is identified on the list of tested products found at www.xtendimaxapplicationrequirments.com;
2. The intended products are not prohibited on either this label or the label of the tank mix product; and
3. All requirements and restrictions on www.xtendimaxapplicationrequirments.com are followed.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, MONSANTO MAKES NO RECOMMENDATION OR WARRANTY HEREIN REGARDING THE USE OF ANY PRODUCT THAT MAY APPEAR ON THE WEBSITE REFERENCED ABOVE, REGARDLESS OF WHETHER SUCH PRODUCT IS USED ALONE OR IN A TANK MIX WITH XTENDIMAX® WITH VAPORGRIP® TECHNOLOGY. BUYER AND ALL USERS ARE SOLELY RESPONSIBLE FOR ANY LACK OF PERFORMANCE, LOSS, OR DAMAGE IN CONNECTION WITH THE USE OR HANDLING OF ANY SUCH PRODUCT ALONE OR IN A TANK MIX WITH XTENDIMAX® WITH VAPORGRIP® TECHNOLOGY. See the section titled "LIMIT OF WARRANTY AND LIABILITY" herein for more information.

8.1 Compatibility Test for Mix Components

Before mixing components, always perform a compatibility jar test.

- For 15 gallons per acre spray volume, use 2.5 cups (591.5 mL) of water. For other spray volumes, adjust rates accordingly. Only use water from the intended source at the source temperature.
- Add components in the sequence indicated in the Mixing Order section below using 2 teaspoons for each pound or 1 teaspoon for each pint of labeled use rate per acre.
- Cap the jar and invert 10 cycles between component additions.
- When the components have all been added to the jar, let the solution stand for 15 minutes.
- Evaluate the solution for uniformity and stability. The spray solution should not have free oil on the surface; fine particles that precipitate to the bottom; or thick (clabbered) texture. If the spray solution is not compatible, repeat the compatibility test with the addition of a suitable compatibility agent. If the solution is then compatible, use the compatibility agent as directed on its label. If the solution is still incompatible, then do not mix the ingredients in the same tank.

8.2 Mixing Order

Only use approved tank mix products as directed on www.xtendimaxapplicationrequirements.com. Always read and follow label directions for all products in the tank mixture. It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. See section 8.0 for additional restrictions on tank mixing.

1. Ensure application and mixing equipment are clean and in proper working order
2. Water - Begin by agitating a thoroughly **clean sprayer** tank three-quarters full of clean water.
3. Agitation - Maintain constant agitation throughout mixing and application.
4. Drift Reducing Adjuvants (DRA)-(when applicable)
5. Inductor - If an inductor is used, rinse it thoroughly after each component has been added.

6. Products in PVA bags - Place any product contained in water-soluble PVA bags into the mixing tank. Wait until all water-soluble PVA bags have fully dissolved and the product is evenly mixed in the spray tank before continuing.
7. Water-dispersible products (dry flowables, wettable powders, suspension concentrates, or suspo-emulsions)
8. Water-soluble products (such as XtendiMax® With VaporGrip® Technology)
9. Emulsifiable concentrates (such as oil concentrate when applicable)
10. Water-soluble additives (when applicable)
11. Add remaining quantity of water.

Maintain constant agitation during application

8.3 Adjuvants, Drift Reducing Adjuvants, Surfactants, and Other Tank Mixed Products

See Section 8.0 TANK MIXING INSTRUCTIONS~~TANK MIXING INSTRUCTIONS~~ for tank mixing instructions for adjuvants, drift reducing adjuvants, surfactants, and other tank mixed products.

9.0 APPLICATION EQUIPMENT AND TECHNIQUES

DO NOT APPLY THIS PRODUCT USING AERIAL SPRAY EQUIPMENT.

XtendiMax® With VaporGrip® Technology can be applied to actively growing weeds as broadcast, band, or spot spray applications using water as a carrier. For best results, treat weeds early when they are relatively small (less than 4 inches). Timely application to small weeds early in the season will improve control and reduce weed competition. Refer to Table 1 for XtendiMax® With VaporGrip® Technology application rates for control or suppression by weed type and growth stage. For crop-specific application timing and other details, refer to the CROP-SPECIFIC INFORMATION section of this label.

APPLY THIS PRODUCT USING PROPERLY MAINTAINED AND CALIBRATED EQUIPMENT CAPABLE OF DELIVERING THE REQUIRED VOLUMES.

Using a hooded sprayer or other drift reduction technology in combination with approved nozzles may further reduce drift potential.

Cultivation: Do not cultivate within 7 days after applying this product.

Table 1. XtendiMax® With VaporGrip® Technology Application Rates for Control or Suppression by Weed Type and Growth Stage
Use rate limitations are given in sections 10 (RESTRICTIONS), 11 (CROP-SPECIFIC INFORMATION), and 12 (CROPS WITH XTEND TECHNOLOGY)

Weed Type and Stage	Rate Per Acre	Weed Type and Stage	Rate Per Acre
Annual[1]		**Perennial**	
Small, actively growing	11 – 22 fluid ounces	Top growth suppression	11 – 22 fluid ounces
		Top growth control and root suppression	22 – 44 fluid ounces
Established weed growth	22 – 33 fluid ounces	Noted perennials (footnote 1 in Section 13.0).	44 fluid ounces
		Other perennials (without footnote 1 in Section 13.0)[3]	44 fluid ounces

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Biennial Rosette diameter 1 – 3 inches Rosette diameter 3 inches or more Bolting	 11 – 22 fluid ounces 22 – 44 fluid ounces 44 fluid ounces	**Woody Brush & Vines** Top growth suppression Top growth control[2,3] Stems and stem suppression[3]	 22 – 44 fluid ounces 44 fluid ounces 44 fluid ounces
[1] Rates below 11 fluid ounces per acre may provide control or suppression but should typically be applied with other herbicides that are effective on the same species and biotype. [2] Woody Species listed in section 13.0 may require tank mixes for adequate top growth control. [3] DO NOT broadcast apply more than 44 ounces per acre for a single application and DO NOT exceed broadcast applications of more than 88 ounces per acre within the growing season when a sequential application is needed for control. Use the higher rate when treating dense vegetation or perennial weeds with established root growth. Perennials and Woody Species are defined as those listed in Section 13.0.			

9.1 Spray Drift Management

Do not allow herbicide solution to mist, drip, drift or splash onto desirable vegetation because severe injury or destruction to desirable broadleaf plants could result.

The most effective way to reduce drift potential is to apply large droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if the application is made improperly, or under unfavorable environmental conditions (see the **"Temperature and Humidity"** and **"Temperature Inversions"** sections of this label).

9.1.1 Sprayer Setup

The following sprayer setup requirements for drift management must be followed:

- **Nozzle type.** The applicator must use an approved nozzle within a specified pressure range as found at www.xtendimaxapplicationrequirements.com when applying XtendiMax® With VaporGrip® Technology. Do not use any other nozzle and pressure combination not specifically listed on this website.

- **Spray Volume.** The applicator must apply this product in a **minimum of 15 gallons of spray solution per acre**. See Section 8.0 for information on approved tank mix products.

- **Equipment Ground Speed.** Do not exceed a **ground speed of 15 miles per hour**. Select a ground speed that will deliver the desired spray volume while maintaining the desired spray pressure, but slower speeds generally result in better spray coverage and deposition on the target area. Provided the applicator can maintain the required nozzle pressure, it is recommended that tractor speed is reduced to 5 miles per hour at field edges.

- **Spray boom Height.** Do not exceed a **boom height of 24 inches** above target pest or crop canopy. Excessive boom height will increase the drift potential.

- **Wind Speed.** Do not apply when wind speeds are **less than 3 MPH or greater than 10 MPH**. Only apply when wind speed at boom height is between 3 and 10 mph.

9.1.2 Temperature and Humidity

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When making applications in low relative humidity or temperatures above 91 degrees Fahrenheit, set up equipment to produce larger droplets to compensate for evaporation (for example: increase orifice size and/or increase spray volume as directed on www.xtendimaxapplicationrequirements.com). Larger droplets have a lower surface to volume ratio and can be impacted less by temperature and humidity. Droplet evaporation is most severe when conditions are both hot and dry.

9.1.3 Temperature Inversions

Do not apply this product during a temperature inversion as the off-target movement potential is high. In general, temperature inversions are more likely during nighttime hours. Applications of this product may ONLY occur one hour after sunrise though two hours before sunset.

- During a temperature inversion, the atmosphere is very stable and vertical air mixing is restricted, which can cause small, suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light, variable winds common during inversions.
- Temperature inversions can be characterized by increasing temperatures with altitude and can be common on evenings and nights with limited cloud cover and light to no wind. Cooling of air at the earth's surface takes place and warmer air is trapped above it. Temperature inversions can begin to form as the sun sets and often continue into the morning.
- Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.
- The inversion will typically dissipate with increased winds (above 3 miles per hour) or at sunrise when the surface air begins to warm (generally 3°F from morning low).

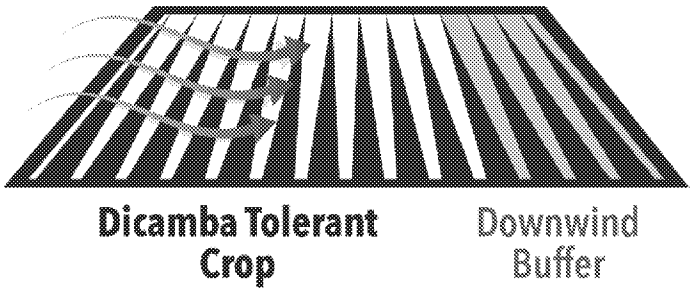
9.1.4 Buffer Requirements and Protection of Sensitive Crops

Do not apply under circumstances where drift may occur to food, forage, or other plantings that might be damaged or the crops rendered unfit for sale, use, or consumption.

9.1.4.a. **Buffer Requirement**

The applicator **must always maintain** a 110 foot downwind buffer (when applying up to 22 fluid ounces of this product per acre) or a 220 foot downwind buffer (when applying greater than 22 up to 44 fluid ounces of this product per acre) between the last treated row and the nearest downwind field edge (in the direction the wind is blowing).

If you have questions regarding Buffer Requirement contact Bayer at 1-844-RRXTEND prior to application.



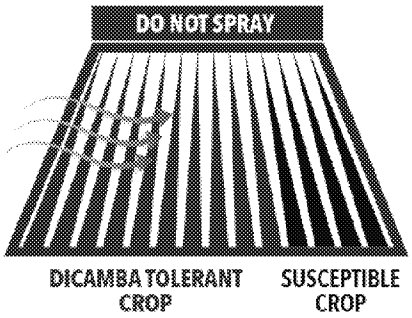
The following areas may be included in the buffer distance calculation when ~~directly~~ immediately adjacent to the treated field edges:

- Roads, paved or gravel surfaces, mowed and/or managed areas immediately adjacent to field such as road ditches.
- Planted agricultural fields containing: corn, dicamba tolerant cotton, dicamba tolerant soybean, sorghum, proso millet, small grains and sugarcane. If the applicator intends to include such crops as dicamba tolerant cotton and/or dicamba tolerant soybeans in the buffer distance calculation, the applicator must confirm the crops are in fact dicamba tolerant.
- Agricultural fields that have been prepared for planting
- Areas covered by the footprint of a building, silo, or other man made structure with walls and or roof.

9.1.4.b. **Sensitive Crops**

DO NOT APPLY this product when the wind is blowing toward immediately adjacent non-dicamba tolerant sensitive crops; this includes **NON-DICAMBA TOLERANT SOYBEAN AND COTTON.**

It is important for the applicator to be aware that wind direction may vary during the application. If wind direction shifts such that the wind is blowing toward adjacent non-dicamba tolerant sensitive crops, the applicator must cease the application.



Before making an application, consult a sensitive crop registry (such as FieldWatch); and survey adjacent fields and confirm the crops/areas surrounding the field prior to application. At a minimum, records must include the name of the sensitive crop registry and the date it was consulted and documentation of adjacent crops/areas and the date the survey was conducted.

Sensitive crops include, but are not limited to non-dicamba tolerant soybeans and cotton, tomatoes and other fruiting vegetables (EPA crop group 8), fruit trees, cucurbits (EPA crop group 9), grapes, beans, flowers, ornamentals, peas, potatoes, sunflower, tobacco, other broadleaf plants, and including plants in a greenhouse. Severe injury or destruction could occur if any contact between this product and these plants occurs.

If you have questions regarding sensitive crop registries contact Bayer at 1-844-RRXTEND prior to application.

9.1.5 Application Awareness

AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR.

The interaction of equipment and weather related factors must be monitored to maximize performance and on-target spray deposition. The applicator is responsible for considering all of these factors when making a spray decision. The applicator is responsible for compliance with state and local pesticide regulations, including any state or local pesticide drift regulations.

9.2 Ground Application (Banding)

When applying XtendiMax® With VaporGrip® Technology by banding, determine the amount of herbicide and water volume needed using the following formula:

$$\frac{\text{Bandwidth in inches}}{\text{Row width in inches}} \times \text{Broadcast rate per acre} = \text{Banding herbicide rate per acre}$$

$$\frac{\text{Bandwidth in inches}}{\text{Row width in inches}} \times \text{Broadcast volume per acre} = \text{Banding water volume per acre}$$

9.3 Ground Application (Broadcast)

Water Volume: Use a **minimum of 15 gallons** of spray solution per broadcast acre for optimal performance. Use 20 gallons per acre when treating dense or tall vegetation.

Application Equipment: Select nozzles (refer to section 9.1.1 Nozzle type of this product label) designed to produce minimal amounts of fine spray particles. Spray with nozzles as close to the weeds as practical for good weed coverage.

Using a hooded sprayer or other drift reduction technology in combination with approved nozzles may further reduce drift potential.

9.4 Ground Application (Wipers)

XtendiMax® With VaporGrip® Technology may be applied through wiper application equipment to control or suppress actively growing broadleaf weeds, brush and vines. Use a solution containing 1 part XtendiMax® With VaporGrip® Technology to 1 part water. Do not apply greater than 1 lb dicamba acid equivalent (1 quart of this product) per acre per application. Do not contact desirable vegetation with herbicide solution. Wiper application may be made to crops (including pastures) and non-cropland areas described in this label except for non-dicamba-tolerant cotton, sorghum, and non-dicamba-tolerant soybean.

9.5 Proper Spray System Equipment Cleanout

You must ensure that the spray system used to apply this product is clean before using this product.

Failure to properly clean the entire spray system can result in inadvertent contamination of the spray system. Small quantities of dicamba may cause injury to non-dicamba tolerant soybeans and other sensitive crops (see Section 9.1.4 of this label for more information).

Inadvertent contamination can also occur in equipment used for bulk product handling and mixing prior to use in the spray system. Care should be taken to reduce contamination not only in the spray system but in any equipment used to transfer or deliver product. For example, bulk handling and mixing equipment containing this product should be segregated when possible to reduce potential for cross-contamination. Consider using block and check valves to avoid backflow during transfer. Piping should be reviewed to ensure there not potential for product build-up. Dedicated nurse trucks and tender equipment should be used when possible.

Clean equipment immediately after using this product, using a triple rinse procedure as follows:

1. After spraying, drain the sprayer (including boom and lines) immediately. Do not allow the spray solution to remain in the spray boom lines overnight prior to flushing.
2. Flush tank, hoses, boom and nozzles with clean water. If equipped, open boom ends and flush.
3. Inspect and clean all strainers, screens and filters.
4. Prepare a cleaning solution with a commercial detergent or sprayer cleaner or ammonia according to the manufacturer's directions.
5. Take care to wash all parts of the tank, including the inside top surface. Start agitation in the sprayer and thoroughly recirculate the cleaning solution for at least 15 minutes. All visible deposits must be removed from the spraying system.
6. Flush hoses, spray lines and nozzles for at least 1 minute with the cleaning solution.
7. Remove nozzles, screens and strainers and clean separately in the cleaning solution after completing the above procedures.
8. Drain pump, filter and lines.
9. Rinse the complete spraying system with clean water.
10. Clean and wash off the outside of the entire sprayer and boom.
11. All rinse water must be disposed of in compliance with local, state, and federal guidelines.

10.0 ADDITIONAL RESTRICTIONS

Maximum Application Rates: The maximum application or use rates stated throughout this label are given in units of volume (fluid ounces or quarts) of this product per acre. However, the maximum allowed application rates apply to this product combined with the use of any and all other herbicides containing the active ingredients dicamba, whether applied separately or as a tank mixture, on a basis of total pounds of dicamba (acid equivalents) per acre. If more than one dicamba-containing product is applied to the same site within the same year, you must ensure that the total use of dicamba (pounds acid equivalents) does not exceed 2 pounds/A per year from all applications. See the INGREDIENTS section of this label for necessary product information.

Maximum seasonal use rate: Refer to Table 2. Crop-Specific Restrictions for crop-specific maximum seasonal use rates. Do not exceed 88 fluid ounces of XtendiMax® With VaporGrip® Technology (2 pounds acid equivalent) per acre, per year.

Preharvest Interval (PHI): Refer to the CROP-SPECIFIC INFORMATION section for preharvest intervals.

Restricted Entry Interval (REI): 24 hours

Crop Rotational Restrictions

No rotational cropping restrictions apply when rotating to Roundup Ready 2 Xtend® Soybeans, XtendFlex® Soybeans, or cotton seed with XtendFlex® Technology (including Bollgard® 3 XtendFlex® Cotton, Bollgard II® XtendFlex® Cotton, or XtendFlex® Cotton). For other crops the interval between application and planting rotational crop is given below. When counting days from the application of this product, do not count days when the ground is frozen. Planting at intervals less than specified below may result in crop injury. Moisture is essential for the degradation of this herbicide in soil. If dry weather prevails, use cultivation to allow herbicide contact with moist soil.

Planting/replanting restrictions at application rates of 33 fluid ounces of this product per acre per season or less: Follow the planting restrictions in the directions for use for Preplant application in the Crop Specific Information section of this label. For corn, cotton (except cotton seed with XtendFlex® Technology), sorghum, and soybean (except Roundup Ready 2 Xtend® Soybean and XtendFlex® Soybean), follow the planting restrictions in the directions for use for preplant application in **Section 11. Crop-Specific Information** of this label. Do not plant barley, oat, wheat, and other grass seedings for 15 days for every 11 fluid ounces of this product applied per acre east of the Mississippi River and 22 days for every 11 fluid ounces per acre applied west of the Mississippi River. No planting restrictions apply beyond 120 days after application of this product.

Planting/replanting restrictions at application rates of more than 33 fluid ounces and up to 88 fluid ounces of this product per acre per season: Wait a minimum of 120 days after application of this product before planting corn, sorghum and cotton (except cotton seed with XtendFlex® Technology) east of the Rocky Mountains and before planting all other crops (except Roundup Ready 2 Xtend® Soybean and XtendFlex® Soybean) grown in areas receiving 30 inches or more rainfall annually. Wait a minimum of 180 days before planting crops in areas with less than 30 inches of annual rainfall. Wait a minimum of 30 days for every 22 fluid ounces of this product applied per acre before planting barley, oat, wheat, and other grass seedings east of the Mississippi River and 45 days for every 22 fluid ounces of this product applied per acre west of the Mississippi River.

Table 2. Crop-Specific Restrictions[1]

Crop	Maximum Rate Per Acre Per Application (fl oz)	Maximum Rate Per Acre Per Season (fl oz)	Livestock Grazing or Feeding
Asparagus	22	22	Yes
Barley; Fall Spring	11 11	16.5 15	Yes
Conservation Reserve Program (CRP)	44	88	Yes
Corn	22	33	Yes[2]
Cotton	11	11	Yes

Cotton with XtendFlex Technology	44	88	Yes
Fallow Ground	44	88	Yes
Grass grown for seed	44	88	Yes
Oats	5.5	5.5	Yes
Pastureland	44	44	Yes
Proso Millet	5.5	5.5	Yes
Small grains grown for grass, forage, fodder, hay and/or pasture	22	22	Yes
Sorghum	11	22	Yes
Soybean	44	44	Yes
Roundup Ready 2 Xtend Soybean and XtendFlex Soybean	44	88	Yes
Sugarcane	44	88	Yes
Triticale	5.5	5.5	Yes
Sod farms and farmstead turf	44	44	Yes
Wheat	11	22	Yes
[1]Refer to section **11. CROP-SPECIFIC INFORMATION** and section **12. CROPS WITH XTEND TECHNOLOGY** for more details. [2]Once the crop reaches the ensilage (milk) stage or later in maturity			

11.0 CROP-SPECIFIC INFORMATION

Read Sections: 8.0 for Tank Mixing Instructions and 9.1.4 for Buffer Requirements and Sensitive Crops for information on tank mixing, buffer requirements, and sensitive crops.

11.1 Asparagus

Apply XtendiMax® With VaporGrip® Technology to emerged and actively growing weeds in 40 - 60 gallons of diluted spray per treated acre immediately after cutting the field, but at least 24 hours before the next cutting. Multiple applications may be made per growing season.

If spray contacts emerged spears, crooking (twisting) of some spears may result. If such crooking occurs, discard affected spears.

Rates: Apply 11-22 fluid ounces of XtendiMax® With VaporGrip® Technology to control annual sowthistle, black mustard, Canada and Russian thistle, and redroot pigweed (carelessweed).

Apply 22 fluid ounces of XtendiMax® With VaporGrip® Technology to control common chickweed, field bindweed, nettleleaf goosefoot, and wild radish. Up to 2 applications may be made per growing season. Do not exceed a total of 22 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre, per crop year.

Do not harvest prior to 24 hours after treatment.

[Optional: Do not use in the Coachella Valley of California]

11.2 Between Crop Applications

Preplant Directions (Postharvest, Fallow, Crop Stubble, Set-Aside) for Broadleaf Weed Control:

XtendiMax® With VaporGrip® Technology can be applied either postharvest in the fall, spring, or summer during the fallow period or to crop stubble/set-aside acres. Apply XtendiMax® With VaporGrip® Technology as a broadcast or spot treatment to emerged and actively growing weeds after crop harvest (postharvest) and before a killing frost or in the fallow cropland or crop stubble the following spring or summer.

See the "Crop Rotational Restrictions" in Section 10 of this label for the recommended interval between application and planting to prevent crop injury.

Rates and Timings:

Apply 5.5 – 44 fluid ounces of XtendiMax® With VaporGrip® Technology per acre. Refer to Table 1 to determine use rates for specific targeted weed species. For best performance, apply XtendiMax® With VaporGrip® Technology when annual weeds are less than 4 inches tall, when biennial weeds are in the rosette stage and to perennial weed regrowth in late summer or fall following a mowing or tillage treatment. The most effective control of upright perennial broadleaf weeds such as Canada thistle and Jerusalem artichoke occurs if XtendiMax® With VaporGrip® Technology is applied when the majority of weeds have at least 4 – 6 inches of regrowth or for weeds such as field bindweed and hedge bindweed that are in or beyond the full bloom stage.

Avoid disturbing treated areas following application. Treatments may not kill weeds that develop from seed or underground plant parts such as rhizomes or bulblets, after the effective period for XtendiMax® With VaporGrip® Technology. For seedling control, a follow-up program or other cultural practices could be instituted. For small grain in-crop uses of XtendiMax® With VaporGrip® Technology, refer to the small grain section for details.

11.3 Conservation Reserve Program (CRP)

XtendiMax® With VaporGrip® Technology is recommended for use on both newly seeded and established grasses grown in Conservation Reserve or federal Set-Aside Programs. Treatments of XtendiMax® With VaporGrip® Technology will injure or may kill alfalfa, clovers, lespedeza, wild winter peas, vetch, and other legumes.

Newly Seeded Areas

XtendiMax® With VaporGrip® Technology may be applied either preplant or postemergence to newly seeded grasses or small grains such as barley, oats, rye, sudanqrass, wheat, or other grain species grown as a cover crop. Postemergence applications may be made after seedling grasses exceed the 3-leaf stage. Rates of XtendiMax® With VaporGrip® Technology greater than 22 fluid ounces per treated acre may severely injure newly seeded grasses.

Preplant applications may injure new seedlings if the interval between application and grass planting is less than 45 days per 22 fluid ounces of XtendiMax® With VaporGrip® Technology applied per treated acre west of the Mississippi River or 20 days per 22 fluid ounces applied east of the Mississippi River.

Established Grass Stands

Established grass stands are perennial grasses planted one or more seasons prior to treatment. Certain species (bentgrass, carpetgrass, smooth brome, buffalograss, or St. Augustinegrass) may be injured when treated with more than 22 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre.

When applied at recommended rates, XtendiMax® With VaporGrip® Technology will control many annual and biennial weeds and provide control or suppression of many perennial weeds.

Rates and Timings

Apply 5.5 - 44 fluid ounces of XtendiMax® With VaporGrip® Technology per acre. Refer to **Table 1** for rates based on target weed species. Retreatments may be made as needed; however, do not exceed a total of 88 fluid ounces (4 pints) of XtendiMax® With VaporGrip® Technology per acre per year.

11.4 Corn (Field, Pop, Seed, And Silage)

Direct contact of XtendiMax® With VaporGrip® Technology with corn seed must be avoided. If corn seeds are less than 1.5 inches below the surface, delay application until corn has emerged.

Applications of XtendiMax® With VaporGrip® Technology to corn during periods of rapid growth may result in temporary leaning. Corn will usually become erect within 3 to 7 days. Cultivation should be delayed until after corn is growing normally to avoid breakage.

Corn may be harvested or grazed for feed once the crop has reached the ensilage (milk) stage or later in maturity.

Up to 2 applications of XtendiMax® With VaporGrip® Technology may be made during a growing season. Sequential applications must be separated by 2 weeks or more.

Do not apply XtendiMax® With VaporGrip® Technology to seed corn or popcorn without first verifying with your local seed corn company (supplier) the selectivity of XtendiMax® With VaporGrip® Technology on your inbred line or variety of popcorn. This precaution will help avoid potential injury of sensitive varieties.

Avoid using crop oil concentrates after crop emergence as crop injury may result. Use crop oil concentrates only in dry conditions when corn is less than 5 inches tall when applying XtendiMax® With VaporGrip® Technology.

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Use of sprayable fluid fertilizer as the carrier is not recommended for applications of XtendiMax® With VaporGrip® Technology made after corn emergence.

XtendiMax® With VaporGrip® Technology is not registered for use on sweet corn.

Preplant and Preemergence Application in No-Tillage Corn:

Rates: Apply 22 fluid ounces of XtendiMax® With VaporGrip® Technology per acre on medium- or fine-textured soils containing 2.5% or greater organic matter. Use 11 fluid ounces per acre on coarse soils (sand, loamy sand, and sandy loam) or medium- and fine-textured soils with less than 2.5% organic matter.

Timing: XtendiMax® With VaporGrip® Technology can be applied to emerging weeds before, during, or after planting a corn crop. When planting into a legume sod (e.g., alfalfa or clover), apply XtendiMax® With VaporGrip® Technology after 4 – 6 inches of regrowth has occurred

Preemergence Application in Conventional or Reduced Tillage Corn:

Rates: Apply 22 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre on medium- or fine-textured soils containing 2.5% organic matter or more. Do not apply to coarse textured soils (sand, loamy sand, or sandy loam) of any soil with less than 2.5% organic matter until after corn emergence (See Early Postemergence uses below).

Timing: XtendiMax® With VaporGrip® Technology may be applied after planting and prior to corn emergence. Pre-emergence application of XtendiMax® With VaporGrip® Technology does not require mechanical incorporation to become active. A shallow mechanical incorporation is recommended if application is not followed by adequate rainfall or sprinkler irrigation. Avoid tillage equipment (e.g., drags, harrows) which concentrates treated soil over seed furrow as seed damage could result.

Preemergence control of cocklebur, jimsonweed, and velvetleaf may be reduced if conditions such as low temperature or lack of soil moisture cause delayed or deep germination of weeds.

Early Postemergence Application in All Tillage Systems:

Rates: Apply 22 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre. Reduce the rate to 11 fluid ounces per treated acre if corn is growing on coarse textured soils (sand, loamy sand, and sandy loam).

Timing: Apply between corn emergence and the 5-leaf stage or 8 inches tall, whichever occurs first. Refer to Late Postemergence Applications if the sixth true leaf is emerging from whorl or corn is greater than 8 inches tall.

Late Postemergence Application:

Rate: Apply 11 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre.

Timing: Apply XtendiMax® With VaporGrip® Technology from 8 - 36 inch tall corn or 15 days before tassel emergence, whichever comes first. For best performance, apply when weeds are less than 3 inches tall.

Apply directed spray when corn leaves prevent proper spray.

11.5 Cotton

For directions for use with crops with Xtend Technology see the "CROPS WITH XTEND TECHNOLOGY" section of this label.

Preplant Application:

Apply up to 11 fluid ounces of XtendiMax® With VaporGrip® Technology per acre to control emerged broadleaf weeds prior to planting cotton in conventional or conservation tillage systems.

For best performance, apply XtendiMax® With VaporGrip® Technology when weeds are in the 2 - 4 leaf stage and rosettes are less than 2 inches across.

Following application of XtendiMax® With VaporGrip® Technology and a minimum accumulation of 1 inch of rainfall or overhead irrigation, allow a minimum of 21 days between treatment and planting per application of 11 fluid ounces per acre or less. This plant back interval must be observed prior to planting cotton.

Do not apply preplant to cotton west of the Rockies.

Do not make XtendiMax® With VaporGrip® Technology preplant applications to cotton in geographic areas with average annual rainfall less than 25 inches.

If applying a spring preplant treatment following application of a fall preplant (postharvest) treatment, then the combination of both treatments may not exceed 2 pounds acid equivalent per acre.

11.6 Grass Grown For Seed

Apply 11 - 22 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre on seedling grass after the crop reaches the 3 -5 leaf stage. Apply up to 44 fluid ounces of XtendiMax® With VaporGrip® Technology on well-established perennial grass. For best performance, apply XtendiMax® With VaporGrip® Technology when weeds are in the 2 - 4 leaf stage and rosettes are less than 2 inches across. Use the higher level of listed rate ranges when treating more mature weeds or dense vegetative growth.

To suppress annual grasses such as brome (downy and ripgut), rattail fescue, and windgrass, apply up to 44 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre in the fall or late summer after harvest and burning of established grass seed crops. Applications should be made immediately following the first irrigation when the soil is moist and before weeds have more than 2 leaves.

Do not apply XtendiMax® With VaporGrip® Technology after the grass seed crop begins to joint.

Refer to the Pasture, Hay, Rangeland, and General Farmstead section for grazing and feeding restrictions.

11.7 Proso Millet

For use only within Colorado, Nebraska, North Dakota, South Dakota, [Optional: **and Wyoming].**

XtendiMax® With VaporGrip® Technology combined with an appropriate tank-mix partner will provide control or suppression of the annual broadleaf weeds listed in **Section 13.**

11.8 Pasture, Hay, Rangeland, And General Farmstead (Noncropland)

XtendiMax® With VaporGrip® Technology is recommended for use on pasture, hay, rangeland, and general farmstead (non-cropland) (including fencerows and non-irrigation ditch banks) for control or suppression of broadleaf weed and brush species listed in Section 12.

XtendiMax® With VaporGrip® Technology may also be applied to non-cropland areas to control broadleaf weeds in noxious weed control programs, districts, or areas including broadcast or spot treatment of roadsides and highways, utilities, railroad, and pipeline rights-of-way. Noxious weeds must be recognized at the state level, but programs may be administered at state, county, or other level.

XtendiMax® With VaporGrip® Technology uses described in this section also pertain to grasses and small grains (forage sorghum, rye, sudangrass, or wheat) grown for grass, forage, fodder, hay and/or pasture use only. Grasses and small grains not grown for grass, forage, fodder, hay and/or pasture must comply with crop-specific uses in this label. Some perennial weeds may be controlled with lower rates of XtendiMax® With VaporGrip® Technology (refer to **Table 1**).

Rates and Timings

Refer to **Table 1** for rate selection based on targeted weed or brush species.

Rates above 44 fluid ounces of XtendiMax® With VaporGrip® Technology per acre are for spot treatments only. Spot treatment is defined as no more than a total of 1000 square feet of treated area per acre. Do not broadcast apply more than 44 fluid ounces per acre.

Retreatments may be made as needed; however, do not exceed a total of 44 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre during a growing season.

Grass grown for hay requires a minimum of 7-days between treatment and harvest.

Crop-Specific Restrictions

Do not apply more than 22 fluid ounces of XtendiMax® With VaporGrip® Technology per acre to small grains grown for pasture.

Newly seeded areas may be severely injured if more than 22 fluid ounces of XtendiMax® With VaporGrip® Technology is applied per acre.

Established grass crops growing under stress can exhibit various injury symptoms that may be more pronounced if herbicides are applied. Bentgrass, carpetgrass, buffalograss, and St. Augustin grass may be injured if more than 22 fluid ounces of XtendiMax® With VaporGrip® Technology is applied per acre. Usually colonial bent grasses are more tolerant than creeping types. Velvet grasses are most easily injured. Treatments will kill or injure alfalfa, clovers, lespedeza, wild winter peas, vetch, and other legumes.

Table 3 lists the timing restrictions for grazing or harvesting hay from treated fields. There are no grazing restrictions for animals other than lactating dairy animals.

Table 3. Timing Restrictions for Lactating Dairy Animals Following Treatment

XtendiMax® With VaporGrip® Technology Rate per Treated Acre (fluid ounces)	Days Before Grazing (days)	Days Before Hay Harvest (days)
Up to 22	7	37
Up to 44	21	51

- **Spot Treatments:** XtendiMax® With VaporGrip® Technology may be applied to individual clumps or small areas of undesirable vegetation using handgun or similar types of application equipment. Apply diluted sprays to allow complete wetting (up to runoff) of foliage and stems.

Cut Surface Treatments:

XtendiMax® With VaporGrip® Technology may be applied as a cut surface treatment for control of unwanted trees and prevention of sprouts of cut trees.

Rate: Mix 1 part XtendiMax® With VaporGrip® Technology with 1 - 3 parts water to create the application solution. Use the lower dilution rate when treating difficult-to-control species.

- **For Frill or Girdle Treatments**: Make a continuous cut or a series of overlapping cuts using an axe to girdle tree trunk. Spray or paint the cut surface with the solution.
- **For Stump Treatments:** Spray or paint freshly cut surface with the water mix. The area adjacent to the bark should be thoroughly wet.

Applications For Control of Dormant Multiflora Rose:

XtendiMax® With VaporGrip® Technology can be applied when plants are dormant as an undiluted spot treatment directly to the soil or as a Lo-Oil basal bark treatment using an oil-water emulsion solution.

- **Spot treatments:** Spot treatment applications of XtendiMax® With VaporGrip® Technology should be applied directly to the soil as close as possible to the root crown but within 6 - 8 inches of the crown. On sloping terrain, apply XtendiMax® With VaporGrip® Technology to the uphill side of the crown. Do not apply when snow or water prevents applying XtendiMax® With VaporGrip® Technology directly to the soil. The use rate of XtendiMax® With VaporGrip® Technology depends on the canopy diameter of the multiflora rose.

  Examples: Use 0.34, 1.38, or 3.23 fluid ounces of XtendiMax® With VaporGrip® Technology respectively, for 5, 10, or 15 feet canopy diameters.

- **Lo-Oil basal bark treatments:** For Lo-Oil basal bark treatments, apply XtendiMax® With VaporGrip® Technology to the basal stem region from the ground line to a height of 12 - 18 inches. Spray until runoff, with special emphasis on covering the root crown. For best results, apply XtendiMax® With VaporGrip® Technology when plants are dormant. Do not apply after bud break or when plants are showing signs of active growth. Do not apply when snow or water prevents applying XtendiMax® With VaporGrip® Technology to the ground line.

  To prepare approximately 2 gallons of a Lo-Oil spray solution:

  1) Combine 1.5 gallons of water, 1 ounce of emulsifier, 22 fluid ounces of XtendiMax® With VaporGrip® Technology, and 2.5 pints of No. 2 diesel fuel.
  2) Adjust the amounts of materials used proportionately to the amount of final spray solution desired.

  Do not exceed 8 gallons of spray solution mix applied per acre, per year.

11.9 SMALL GRAINS

11.9.1 Small Grains Not Underseeded To Legumes (fall- and spring-seeded barley, oat, triticale and wheat)

Refer to the specific crop sections below for use rates. When treating difficult to control weeds such as kochia, wild buckwheat, cow cockle, prostrate knotweed, Russian thistle, and prickly lettuce or when dense vegetative growth occurs, use the 4.12 – 5.5 fluid ounces of XtendiMax® With VaporGrip® Technology per acre.

Timings: Apply XtendiMax® With VaporGrip® Technology before, during, or after planting small grains. See specific small grain crop uses below for maximum crop stage. For best performance, apply XtendiMax® With VaporGrip® Technology when weeds are in the 2 - 3 leaf stage and rosettes are less than 2 inches across. Applying XtendiMax® With VaporGrip® Technology to small grains during periods of rapid growth may result in crop leaning. This condition is temporary and will not reduce crop yields.

Restrictions for small grain areas that are grazed or cut for hay are indicated in **Table 3** in Pasture, Hay, Rangeland, and General Farmstead section of this label.

11.9.2 Small Grains: Barley (fall- and spring-seeded)

Early season applications:

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Apply 2.75 – 5.5 fluid ounces of XtendiMax® With VaporGrip® Technology to fall-seeded barley prior to the jointing stage. Apply 2.75 – 4.12 fluid ounces of XtendiMax® With VaporGrip® Technology before spring-seeded barley exceeds the 4-leaf stage.

Note: For spring barley varieties that are seeded during the winter months or later, follow the rates and timings given for spring-seeded barley.

Preharvest applications:

XtendiMax® With VaporGrip® Technology can be used to control weeds that may interfere with harvest of fall and spring-seeded barley. Apply 11 fluid ounces of XtendiMax® With VaporGrip® Technology per acre as a broadcast or spot treatment to annual broadleaf weeds when barley is in the hard dough stage and the green color is gone from the nodes (joints) of the stern. Best results will be obtained if application can be made when weeds are actively growing, but before weeds canopy.

Allow a minimum of 7 days between treatment and harvest. Do not use preharvest-treated barley for seed unless a germination test is performed on the seed with an acceptable result of 95% germination or better.

[Optional: Do not make preharvest applications in California.]

11.9.3 Small Grains: Oats (fall- and spring-seeded)

Early season applications:

Apply 2.75 – 5.5 fluid ounces of XtendiMax® With VaporGrip® Technology per acre to fall-seeded oat prior to the jointing stage. Apply 2.75 – 5.5 fluid ounces of XtendiMax® With VaporGrip® Technology before spring-seeded oat exceed the 5-leaf stage.

Do not tank mix XtendiMax® With VaporGrip® Technology with 2,4-D in oat.

Allow a minimum of 7 days between treatment and harvest.

11.9.4 Small Grains: Triticale (fall- and spring-seeded)

Early season applications:

Apply 2.75 – 5.5 fluid ounces of XtendiMax® With VaporGrip® Technology to triticale.

Early season applications to fall-seeded triticale must be made prior to the jointing stage.

Early season applications to spring-seeded triticale must be made before triticale reaches the 6-leaf stage.

11.9.5 Small Grains: Wheat (fall- and spring-seeded)

Early Season Applications:

Apply 2.75 – 5.5 fluid ounces of XtendiMax® With VaporGrip® Technology to wheat unless using one of the fall-seeded wheat specific programs below.

Early season applications to fall-seeded wheat must be made prior to the jointing stage.

Early season applications to spring-seeded wheat must be made before wheat exceeds the 6-leaf stage.

Early developing wheat varieties such as TAM 107, Madison, or Wakefield must receive application between early tillering and the jointing stage. Care should be taken in staging these varieties to be certain that the application occurs prior to the jointing stage.

Specific use programs for fall-seeded wheat only:

[Optional: XtendiMax® With VaporGrip® Technology may be used at 8.25 fluid ounces on fall-seeded wheat in Western Oregon as a spring application only.] In Colorado, Kansas, New Mexico, Oklahoma, and Texas, up to 11 fluid ounces of XtendiMax® With VaporGrip® Technology may be applied on fall-seeded wheat after it exceeds the 3-leaf stage for suppression of perennial weeds, such as field bindweed. Applications may be made in the fall following a frost but before a killing freeze.

Preharvest applications:

XtendiMax® With VaporGrip® Technology can be used to control weeds that may interfere with harvest of wheat. Apply 11 fluid ounces XtendiMax® With VaporGrip® Technology per acre as a broadcast or spot treatment to annual broadleaf weeds when wheat is in the hard dough stage and the green color is gone from the nodes (joints) of the stem. Best results will be obtained if application can be made when weeds are actively growing but before weeds canopy.

Allow a minimum of 7 days between treatment and harvest. Do not use preharvest-treated wheat for seed unless a germination test is performed on the seed with an acceptable result of 95% germination or better.

[Optional: Do not make preharvest applications in California.]

11.10 Sorghum

XtendiMax® With VaporGrip® Technology may be applied preplant, postemergence, or preharvest in sorghum to control many annual broadleaf weeds and to reduce competition from established perennial broadleaf weeds, as well as control their seedlings.

Do not graze or feed treated sorghum forage or silage prior to mature grain stage. If sorghum is grown for pasture or hay, refer to Pasture, Hay, Rangeland, and General Farmstead section of this label for specific grazing and feeding restrictions.

Do not apply XtendiMax® With VaporGrip® Technology to sorghum grown for seed production.

Preplant Application:

Up to 11 fluid ounces of XtendiMax® With VaporGrip® Technology may be applied per acre if applied at least 15 days before sorghum planting.

Postemergence Application:

Up to 11 fluid ounces of XtendiMax® With VaporGrip® Technology per acre may be applied after sorghum is in the spike stage (all sorghum emerged) but before sorghum is 15 inches tall. For best performance, apply XtendiMax® With VaporGrip® Technology when the sorghum crop is in the 3 - 5 leaf stage and weeds are small (less than 3 inches tall). Use drop pipes (drop nozzles) if sorghum is taller than 8 inches. Keep the spray off the sorghum leaves and out of the whorl to reduce the likelihood of crop injury and to improve spray coverage of weed foliage. Applying XtendiMax® With VaporGrip® Technology to sorghum during periods of rapid growth may result in temporary leaning of plants or rolling of leaves. These effects are usually outgrown within 10 - 14 days. Delay harvest until 30 days after a preharvest treatment.

Preharvest uses in Texas and Oklahoma only: Up to 11 fluid ounces of XtendiMax® With VaporGrip® Technology per acre may be applied for weed suppression any time after the sorghum has reached the soft dough stage. An agriculturally approved surfactant may be used to improve performance (read Section 8.0 for tank mixing instructions). Delay harvest until 30 days after a preharvest treatment.

Split Application:

XtendiMax® With VaporGrip® Technology may be applied in split applications: preplant followed by postemergence or preharvest; or postemergence followed by preharvest. Do not exceed 11 fluid ounces per acre, per application or a total of 22 ounces per acre, per season.

11.11 Soybean

For directions for use with crops with Xtend Technology see the "CROPS WITH XTEND TECHNOLOGY" section of this label.

Preplant Applications:

Apply 5.5 -22 fluid ounces of XtendiMax® With VaporGrip® Technology per acre to control emerged broadleaf weeds prior to planting soybeans. Do not exceed 22 fluid ounces of XtendiMax® With VaporGrip® Technology per acre in a spring application prior to planting soybeans.

Following application of XtendiMax® With VaporGrip® Technology and a minimum accumulation of 1 inch rainfall or overhead irrigation, allow a minimum of 14 days between treatment and planting for applications of 11 fluid ounces per acre or less, and allow a minimum of 28 days between treatment and planting for applications of 22 fluid ounces per acre. These plant back intervals must be observed prior to planting soybeans or crop injury may occur.

Do not make XtendiMax® With VaporGrip® Technology preplant applications to soybeans in geographic areas with average annual rainfall less than 25 inches.

Preharvest Applications:

XtendiMax® With VaporGrip® Technology can be used to control many annual and perennial broadleaf weeds and control or suppress many biennial and perennial broadleaf weeds in soybean prior to harvest (refer to **Section 10**). Apply 11 - 44 fluid ounces of XtendiMax® With VaporGrip® Technology per acre as a broadcast or spot treatment to emerged and actively growing weeds after soybean pods have reached mature brown color and at least 75% leaf drop has occurred.

Do not harvest soybeans until 7 days after application.

Treatments may not kill weeds that develop from seed or underground plant parts, such as rhizomes or bulblets, after the effective period for XtendiMax® With VaporGrip® Technology. For seedling control, a follow-up program or other cultural practice could be instituted.

Do not use preharvest-treated soybean for seed unless a germination test is performed on the seed with an acceptable result of 95% germination or better.

Do not feed soybean fodder or hay following a preharvest application of XtendiMax® With VaporGrip® Technology.

[Optional: Do not make preharvest applications in California.]

11.12 Sugarcane

Apply XtendiMax® With VaporGrip® Technology for control of annual, biennial, or perennial broadleaf weeds listed in Section 11. Apply 11 - 33 fluid ounces of XtendiMax® With VaporGrip® Technology per acre for control of annual weeds, 22 - 44 fluid ounces for control of biennial weeds, and 44 fluid ounces for control or suppression of perennial weeds.

Use the higher level of listed rate ranges when treating dense vegetative growth.

A single retreatment may be made as needed, however, do not exceed a total of 88 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre during a growing season.

Timing: XtendiMax® With VaporGrip® Technology may be applied to sugarcane any time after weeds have emerged, but before the close-in stage of sugarcane. Applications of 44 fluid ounces of XtendiMax®

With VaporGrip® Technology per acre made over the top of actively growing sugarcane may result in crop injury.

When possible, direct the spray beneath the sugarcane canopy to minimize the likelihood of crop injury. Using directed sprays will also help maximize the spray coverage of weed foliage.

Allow a minimum of 87 days between treatment and harvest.

11.13 Farmstead Turf (noncropland) and Sod Farms

Do not use on residential sites.

For use in general farmstead (noncropland) and sod farms, apply 4.12 – 44 fluid ounces of XtendiMax® With VaporGrip® Technology per acre to control or suppress growth of many annual, biennial, and some perennial broadleaf weeds commonly found in turf. XtendiMax® With VaporGrip® Technology will also suppress many other listed perennial broadleaf weeds and woody brush and vine species. Refer to Table 1 for rate recommendations based on targeted weed or brush species and growth stage.

Repeat treatments may be made as needed; however, do not exceed 44 fluid ounces of XtendiMax® With VaporGrip® Technology per acre, per growing season.

Apply 30 - 200 gallons of diluted spray per treated acre (3 - 17 quarts of water per 1,000 square feet), depending on density or height of weeds treated and on the type of equipment used.

To avoid injury to newly seeded grasses, delay application of XtendiMax® With VaporGrip® Technology until after the second mowing. Furthermore, applying more than 16 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre may cause noticeable stunting or discoloration of sensitive grass species such as bentgrass, carpetgrass, buffalograss, and St. Augustinegrass.

In areas where roots of sensitive plants extend, do not apply more than 5.5 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre on coarse-textured (sandy-type) soils, or in excess of 8 fluid ounces per treated acre on fine-textured soils. Do not make repeat applications in these areas for 30 days and until previous applications of XtendiMax® With VaporGrip® Technology have been activated in the soil by rain or irrigation.

12.0 CROPS WITH XTEND® TECHNOLOGY

COTTON WITH XTENDFLEX® TECHNOLOGY (INCLUDING BOLLGARD II® XTENDFLEX® COTTON, BOLLGARD® 3 XTENDFLEX® COTTON, OR XTENDFLEX® COTTON), ROUNDUP READY 2 XTEND® SOYBEAN, AND XTENDFLEX® SOYBEAN CONTAIN A PATENTED GENE THAT PROVIDES TOLERANCE TO DICAMBA, THE ACTIVE INGREDIENT IN THIS PRODUCT. THIS PRODUCT WILL CAUSE SEVERE CROP INJURY OR DESTRUCTION AND YIELD LOSS IF APPLIED TO COTTON AND SOYBEAN THAT ARE NOT DICAMBA TOLERANT, INCLUDING COTTON AND SOYBEAN WITH A TRAIT ENGINEERED TO CONFER TOLERANCE TO AUXIN HERBICIDES OTHER THAN DICAMBA. FOLLOW THE REQUIREMENTS SET FORTH HEREIN TO PREVENT SEVERE CROP INJURY OR DESTRUCTION AND YIELD LOSS. CONTACT WITH FOLIAGE, GREEN STEMS, OR FRUIT OF CROPS, OR ANY DESIRABLE PLANTS THAT DO NOT CONTAIN A DICAMBA TOLERANCE GENE OR ARE NOT NATURALLY TOLERANT TO DICAMBA, COULD RESULT IN SEVERE PLANT INJURY OR DESTRUCTION.

Information on cotton with XtendFlex® Technology, Roundup Ready 2 Xtend® Soybean, and XtendFlex® Soybean can be obtained from your seed supplier or Monsanto representative. Cotton with XtendFlex® Technology, Roundup Ready 2 Xtend® Soybean, and XtendFlex® Soybean must be purchased from an authorized licensed seed supplier.

Note: Cotton with XtendFlex® Technology, Roundup Ready 2 Xtend® Soybean, and XtendFlex® Soybean and methods of controlling weeds and applying dicamba in a Cotton with XtendFlex® Technology, Roundup Ready 2 Xtend® Soybean, and XtendFlex® Soybean crop are protected under U.S. patent law. No license to use Cotton with XtendFlex® Technology, Roundup Ready 2 Xtend® Soybean, and XtendFlex® Soybean is granted or implied with the purchase of this herbicide product. Cotton with XtendFlex® Technology, Roundup Ready 2 Xtend® Soybean, and XtendFlex® Soybean are owned by Monsanto and a license must be obtained from Monsanto before using it. Contact your Authorized Monsanto Retailer for information on obtaining a license to Cotton with XtendFlex® Technology, Roundup Ready 2 Xtend® Soybean, and XtendFlex® Soybean.

12.1 Cotton with XtendFlex® Technology

DO NOT combine these instructions with other instructions in the "COTTON" Section of **this** label for use over crops that do not contain the dicamba tolerance trait.

TYPES OF APPLICATIONS: Burndown/Early Preplant; Preplant; At-Planting; Preemergence; Postemergence (In-crop)

USE INSTRUCTIONS
Apply this product in a minimum of 15 gallons of spray solution per acre as a broadcast application. For best performance, control weeds early when they are less than 4 inches. Timely application will improve control and reduce weed competition. Refer to the following table for maximum application rates of this product with cotton with XtendFlex® Technology.

Maximum Application Rates	
Combined total per year for all applications	88 fluid ounces per acre (2.0 lb. a.e. dicamba per acre)
Total of all Burndown/Early Preplant, Preplant, At-Planting, and Preemergence applications	44 fluid ounces per acre (1.0 lb. a.e. dicamba per acre)
Total of all in-crop applications up to mid-bloom stage or no more than 60 days after planting, whichever occurs first	44 fluid ounces per acre (1.0 lb. a.e. dicamba per acre)
Maximum In-crop, single application	22 fluid ounces per acre (0.5 lb. a.e. dicamba per acre)

a.e. – acid equivalent

Refer to Table 1 for application rates for weed type and growth stage controlled by this product. Maximum in-crop application rate should be used when treating tough to control weeds, dense vegetative growth or weeds with a well-established root system.

Burndown/Early Preplant, Preplant, At-Planting, Preemergence
USE INSTRUCTIONS: This product may be used to control broadleaf weeds and may be applied before, during or immediately after planting cotton with XtendFlex® Technology. Refer to the "WEEDS CONTROLLED" section of this label for XtendiMax® With VaporGrip® Technology for specific weeds controlled.

RESTRICTIONS:

- The maximum combined quantity of this product that may be applied for all burndown/early preplant, preplant, at-planting, and preemergence applications is 44 fluid ounces (1.0 lb a.e. dicamba) per acre per season.

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- The maximum application rate for a single, burndown/early preplant, preplant, at-planting, or preemergence application must not exceed 44 fluid ounces (1.0 lb a.e. dicamba) per acre.
- Do not apply less than 22 fluid ounces (0.5 lb a.e. dicamba) per acre.

Postemergence (In-crop)
USE INSTRUCTIONS: This product may be used to control broadleaf weeds in cotton with XtendFlex® Technology. In-crop applications of this product can be made up to mid-bloom stage or no more than 60 days after planting, whichever occurs first.

The maximum and minimum rate for any single, in-crop application is 22 fluid ounces (0.5 lb a.e. dicamba) per acre. Using the appropriate application rate may reduce the selection for resistant weeds. For best performance, control weeds early when they are less than 4 inches. To the extent permitted by applicable law, Monsanto Company does not warrant product performance of applications to labeled weeds greater than 4 inches in height. Sequential applications of this product may be necessary to control new flushes of weeds or on tough-to-control weeds. Allow at least 7 days between applications.

Postemergence applications of this product mixed with adjuvants may cause a leaf response to cotton with XtendFlex® Technology. The symptoms usually appear as necrotic spots on fully expanded leaves. EC-based products that are tank mixed with products containing dicamba may increase the severity of the leaf damage.

RESTRICTIONS:
- The combined total applied in-crop up to mid-bloom stage or no more than 60 days after planting, whichever occurs first, must not exceed 44 fluid ounces (1.0 lb a.e. dicamba) per acre and a maximum of two in-crop applications.
- The maximum single, in-crop application rate must not exceed 22 fluid ounces (0.5 lb a.e. dicamba).
- The combined total per year for all applications must not exceed 88 fluid ounces (2.0 lb a.e. dicamba) per acre. For example, if a preplant application of 44 fluid ounces (1.0 lb a.e. dicamba) per acre was made, then the combined total in-crop applications must not exceed 44 fluid ounces (1.0 lb a.e. dicamba) per acre.

12.2 Roundup Ready 2 Xtend® Soybean and XtendFlex® Soybean

DO NOT combine these instructions with other instructions in the "SOYBEAN" Section of **this** label for use over crops that do not contain the dicamba tolerance trait.

TYPES OF APPLICATIONS: Burndown/Early Preplant; Preplant; At-Planting; Preemergence; Postemergence (In-crop); Lay-By

USE INSTRUCTIONS
Apply this product in a minimum of 15 gallons of spray solution per acre as a broadcast application. For best performance, control weeds early when they are less than 4 inches. Timely application will improve control and reduce weed competition. Refer to the following table for maximum application rates of this product with Roundup Ready 2 Xtend® Soybean and XtendFlex® Soybean.

Maximum Application Rates	
Combined total per year for all applications	88 fluid ounces per acre (2.0 lb. a.e. dicamba per acre)
Total of all Burndown/Early Preplant, Preplant, At-Planting, and Preemergence applications	44 fluid ounces per acre (1.0 lb. a.e. dicamba per acre)

Total of all In-crop applications from emergence prior to beginning bloom (R1 stage soybeans) or no more than 45 days after planting, whichever occurs first	44 fluid ounces per acre (1.0 lb. a.e. dicamba per acre)
Maximum In-crop, single application	22 fluid ounces per acre (0.5 lb. a.e. dicamba per acre)

a.e. – acid equivalent

Refer to Table 1 for application rates for weed type and growth stage controlled by this product. Maximum in-crop application rate should be used when treating tough to control weeds, dense vegetative growth or weeds with a well-established root system.

Burndown/Early Preplant, Preplant, At-Planting, Preemergence
USE INSTRUCTIONS: This product may be used to control broadleaf weeds and may be applied before, during or immediately after planting Roundup Ready 2 Xtend® Soybean and XtendFlex® Soybean. Refer to the "WEEDS CONTROLLED" section of this label for specific weeds controlled.

RESTRICTIONS:
- The maximum combined quantity of this product that may be applied for all burndown/early preplant, preplant, at-planting, and preemergence applications is 44 fluid ounces (1.0 lb a.e. dicamba) per acre per season.
- The maximum application rate for a single, burndown/early preplant, preplant, at-planting, or preemergence application must not exceed 44 fluid ounces (1.0 lb a.e. dicamba) per acre.
- Do not apply less than 22 fluid ounces (0.5 lb a.e. dicamba) per acre.

Postemergence (In-crop)
USE INSTRUCTIONS: This product may be used to control broadleaf weeds in Roundup Ready 2 Xtend® Soybean and XtendFlex® Soybean. In-crop applications of this product can be made prior to beginning bloom (R1 stage soybeans) or no more than 45 days after planting, whichever occurs first.

The maximum and minimum rate for any single, in-crop application is 22 fluid ounces (0.5 lb a.e. dicamba) per acre. Using the appropriate application rate may reduce the selection for resistant weeds. For best performance, control weeds early when they are less than 4 inches. To the extent permitted by applicable law, Monsanto Company does not warrant product performance of applications to labeled weeds greater than 4 inches in height.

A second application of this product may be necessary to control new flushes of weeds and can be made prior beginning bloom (R1 stage soybeans) or no more than 45 days after planting, whichever occurs first. Allow at least 7 days between applications. For best results, apply XtendiMax® With VaporGrip® Technology after some weed re-growth has occurred.

Application of this product postemergence and under stressful environments may cause temporary loss of turgor, a response commonly described as leaf droop in Roundup Ready 2 Xtend® Soybean and XtendFlex® Soybean. Typically, affected plants recover in 1-3 days depending on the level of droop and environmental conditions.

RESTRICTIONS:
- The combined total application rate in-crop prior to beginning bloom (R1 stage soybeans) or no more than 45 days after planting, whichever occurs first, must not exceed 44 fluid ounces (1.0 lb. a.e. dicamba) per acre a maximum of two in-crop applications.
- Do not make in-crop applications of this product during and after beginning bloom (R1 stage soybeans) or more than 45 days after planting.
- The maximum single, in-crop application rate must not exceed 22 fluid ounces (0.5 lb. a.e. dicamba) per acre. The combined total per year for all applications must not exceed 88 fluid ounces (2.0 lb. a.e. dicamba) per acre.

13.0 WEEDS CONTROLLED

General Weed List, Including ALS-, Glyphosate, and Triazine-Resistant Biotypes

Annuals

Alkanet
Amaranth, Palmer, Powell, Spiny
Aster, Slender
Bedstraw, Catchweed
Beggarweed, Florida
Broomweed, Common
Buckwheat, Tartary, Wild
Buffalobur
Burclover, California
Burcucumber
Buttercup, Corn, Creeping, Roughseed, Western Field
Carpetweed
Catchfly, Nightflowering
Chamomile, Corn
Chevil, Bur
Chickweed, Common
Clovers
Cockle, Corn, Cow, White
Cocklebur, Common
Copperleaf, Hophornbeam
Cornflower (Bachelor Button)
Croton, Tropic, Woolly
Daisy, English
Dragonhead, American
Eveningprimrose, Cutleaf
Falseflax, Smallseed
Fleabane, Annual
Flixweed
Fumitory
Goosefoot, Nettleleaf
Hempnettle
Henbit
Jacobs-Ladder
Jimsonweed
Knawel (German Moss)
Knotweed, Prostrate
Kochia
Ladysthumb
Lambsquarters Common
Lettuce, Miners, Prickly
Mallow, Common, Venice
Marestail (Horseweed)
Mayweed
Morningglory, Ivyleaf, Tall
Mustard, Black, Blue, Tansy, Treacle, Tumble, Wild, Yellowtops
Nightshade, Black, Cutleaf
Pennycress, Field (Fanweed, Frenchweed, Stinkweed)
Pepperweed, Virginia (Peppergrass)
Pigweed, Prostrate, Redroot (Carelessweed), Rough, Smooth, Tumble
Pineappleweed
Poorjoe
Poppy, Red-horned
Puncturevine
Purslane, Common
Pusley, Florida
Radish, Wild
Ragweed, Common, Giant (Buffaloweed), Lance-Leaf
Rocket, London, Yellow
Rubberweed, Bitter (Bitterweed)
Salsify
Senna, Coffee
Sesbania, Hemp
Shepherdpurse
Sicklepod
Sida, Prickly (Teaweed)
Smartweed, Green, Pennsylvania
Sneezeweed, Bitter
Sowthistle, Annual, Spiny
Spanish Needles
Spikeweed, Common
Spurge, Prostrate, Leafy
Spurry, Corn
Starbur, Bristly
Starwort, Little
Sumpweed, Rough
Sunflower, Common (Wild), Volunteer
Thistle, Russian
Velvetleaf
Waterhemp, Common, Tall
Waterprimrose, Winged
Wormwood

Biennials

Burdock, Common
Carrot, Wild (Queen Anne's Lace)
Cockle, White
Eveningprimrose, Common
Geranium, Carolina
Gromwell
Knapweed, Diffuse, Spotted
Mallow, Dwarf
Plantain, Bracted
Ragwort, Tansy
Starthistle, Yellow
Sweetclover
Teasel
Thistle, Bull, Milk, Musk, Plumeless

Perennials

Alfalfa[1]
Artichoke, Jerusalem
Aster, Spiny, Whiteheath
Bedstraw, Smooth
Bindweed, Field, Hedge
Blueweed, Texas
Bursage, Woollyleaf[1] (Bur Ragweed, Povertyweed)
Buttercup, Tall
Campion, Bladder
Chickweed, Field, Mouseear

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Chicory[1]
Clover[1], Hop
Dandelion[1], Common
Dock[1] Broadleaf (Bitterdock), Curly
Dogbane, Hemp
Dogfennel[1] (Cypressweed)
Fern, Bracken
Garlic, Wild
Goldenrod, Canada, Missouri
Goldenweed, Common
Hawkweed
Henbane, Black[1]
Horsenettle, Carolina
Ironweed
Knapweed, Black, Diffuse, Russian[1], Spotted
Milkweed, Climbing, Common, Honeyvine, Western Whorled
Nettle, Stinging
Nightshade, Silverleaf (White Horsenettle)
Onion, Wild
Plaintain, Broadleaf, Buckhorn
Pokeweed
Ragweed, Western
Redvine
Sericia Lespedeza
Smartweed, Swamp
Snakeweed, Broom
Sorrel[1], Red (Sheep Sorrel)
Sowthistle[1], Perennial
Spurge, Leafy
Sundrops
Thistle, Canada, Scotch
Toadflex, Dalmatian
Tropical Soda Apple
Trumpetcreeper (Buckvine)
Vetch
Waterhemlock, Spotted
Waterprimrose, Creeping
Woodsorrel[1], Creeping, Yellow
Wormwood, Absinth, Louisiana
Yankeeweed
Yarrow, Common[1]

[1] Noted perennials may be controlled using lower rates of **XtendiMax® With VaporGrip® Technology** than those recommended for other listed perennial weeds.

Woody Species

Alder
Ash
Aspen
Basswood
Beech
Birch
Blackberry[2]
Blackgum[2]
Cedar[2]
Cherry
Chinquapin
Cottonwood
Creosotebush[2]
Cucumbertree
Dewberry[2]
Dogwood[2]
Elm
Grape
Hawthorn (Thornapple)[2]
Hemlock
Hickory
Honeylocust
Honeysuckle
Hornbeam
Huckleberry
Huisache
Ivy, Poison
Kudzu
Locust, Black
Maple
Mesquite
Oak
Oak, Poison
Olive, Russian
Persimmon, Eastern
Pine
Plum, Sand (Wild Plum)[2]
Poplar
Rabbitbrush
Redcedar, Eastern[2]
Rose[2], McCartney, Multiflora
Sagebrush, Fringed[2]
Sassafras
Serviceberry
Spicebush
Spruce
Sumac
Sweetgum[2]
Sycamore
Tarbush
Willow
Witchhazel
Yaupon[2]
Yucca[2]

[2]Growth suppression only

14.0 LIMIT OF WARRANTY AND LIABILITY

Monsanto Company warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes set forth in the Complete Directions for Use label booklet ("Directions") when used in accordance with those Directions under the conditions described therein. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, NO OTHER EXPRESS WARRANTY OR IMPLIED WARRANTY OF FITNESS FOR PARTICULAR PURPOSE OR MERCHANTABILITY IS MADE. This warranty is also subject to the conditions and limitations stated herein. Specifically, and without limiting the foregoing, MONSANTO MAKES NO RECOMMENDATION OR WARRANTY HEREIN REGARDING THE USE OF ANY PRODUCTS THAT MAY APPEAR ON THE WEBSITE REFERENCED IN THE TANK-MIXING INSTRUCTIONS HEREIN, REGARDLESS OF WHETHER SUCH PRODUCT IS USED ALONE OR IN A TANK MIX WITH XTENDIMAX® WITH VAPORGRIP® TECHNOLOGY. BUYER AND ALL USERS ARE SOLELY RESPONSIBLE FOR ANY LACK OF PERFORMANCE, LOSS, OR DAMAGE IN

CONNECTION WITH THE USE OR HANDLING OF ANY SUCH PRODUCT ALONE OR IN A TANK MIX WITH XTENDIMAX® WITH VAPORGRIP® TECHNOLOGY.

Buyer and all users shall promptly notify this Company of any claims whether based in contract, negligence, strict liability, other tort or otherwise.

To the extent consistent with applicable law, buyer and all users are responsible for all loss or damage from use or handling which results from conditions beyond the control of this Company, including, but not limited to, incompatibility with products other than those set forth in the Directions, application to or contact with desirable vegetation, failure of this product to control weed biotypes which develop resistance to dicamba, unusual weather, weather conditions which are outside the range considered normal at the application site and for the time period when the product is applied, as well as weather conditions which are outside the application ranges set forth in the Directions, application in any manner not explicitly set forth in the Directions, moisture conditions outside the moisture range specified in the Directions, or the presence of products other than those set forth in the Directions in or on the soil, crop or treated vegetation.

This Company does not warrant any product reformulated or repackaged from this product except in accordance with this Company's stewardship requirements and with express written permission from this Company.

For in-crop (over-the-top) uses on crops with Xtend® Technology, crop safety and weed control performance are not warranted by Monsanto when this product is used in conjunction with "brown bag" or "bin run" seed saved from previous year's production and replanted.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE LIMIT OF THE LIABILITY OF THIS COMPANY OR ANY OTHER SELLER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT (INCLUDING CLAIMS BASED IN CONTRACT, NEGLIGENCE, STRICT LIABILITY, OTHER TORT OR OTHERWISE) SHALL BE THE PURCHASE PRICE PAID BY THE USER OR BUYER FOR THE QUANTITY OF THIS PRODUCT INVOLVED, OR, AT THE ELECTION OF THIS COMPANY OR ANY OTHER SELLER, THE REPLACEMENT OF SUCH QUANTITY, OR, IF NOT ACQUIRED BY PURCHASE, REPLACEMENT OF SUCH QUANTITY. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, IN NO EVENT SHALL THIS COMPANY OR ANY OTHER SELLER BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES.

Upon opening and using this product, buyer and all users are deemed to have accepted the terms of this LIMIT OF WARRANTY AND LIABILITY which may not be varied by any verbal or written agreement. If terms are not acceptable, return at once unopened.

Bollgard II®, Bollgard®, Degree Xtra®, Field Master®, Harness®, Roundup Ready®, Roundup Ready 2 Xtend®, Roundup PowerMAX®, RT 3®, Roundup WeatherMAX®, XtendiMax®, XtendFlex® and VaporGrip® are registered trademarks of Monsanto Technology LLC. All other trademarks are the property of their respective owners.

EPA Reg. No. 524-617

EPA Establishment No. [insert appropriate est. no.]

Lot number [insert appropriate lot number]

Net contents [insert net contents]

Packed for:
MONSANTO COMPANY
800 N. Lindbergh Blvd.
ST. LOUIS, MISSOURI, 63167 U.S.A.

© [DATE]

MASTER LABEL FOR EPA REG. NO. 524-617

RESTRICTED USE PESTICIDE

For retail sale to and use only by Certified Applicators

This labeling expires on 12/20/2020. Do not use or distribute this product after 12/20/2020.

Primary Brand Name:

M1768 Herbicide

Alternate Brand Name:

XtendiMax® With VaporGrip® Technology

DICAMBA	GROUP	4	HERBICIDE

ACTIVE INGREDIENT:

Diglycolamine salt of dicamba (3,6-dichloro-*o*-anisic acid)* 42.8%
OTHER INGREDIENTS: 57.2%

TOTAL: 100.0%
* contains 29.0%, 3,6-dichloro-*o*-anisic acid (2.9 pounds acid equivalent per U.S. gallon or 350 grams per liter).

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RESTRICTED USE PESTICIDE

For retail sale to and use only by Certified Applicators

XtendiMax® With VaporGrip® Technology

Complete Directions for Use

This labeling expires on 12/20/2020. Do not use or distribute this product after 12/20/2020.

EPA Reg. Number: 524-617

For weed control in asparagus, conservation reserve programs, corn, cotton, fallow croplands, general farmstead (noncropland), sorghum, grass grown for seed, hay, proso millet, pasture, rangeland, small grains, sod farms and farmstead turf, soybean, sugarcane, cotton with XtendFlex Technology, Roundup Ready 2 Xtend Soybean, and XtendFlex Soybean.

DICAMBA	GROUP	4	HERBICIDE

This label supersedes any previously issued labeling for this product, including previously issued supplemental labeling.

XtendiMax® With VaporGrip® Technology is approved by U.S. EPA for all uses specified on this label in the following states, subject to county restriction as noted: Alabama, Arkansas, Arizona, Colorado, Delaware, Florida (excluding Palm Beach County), Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Michigan, Minnesota, Mississippi, Missouri, Nebraska, New Jersey, New Mexico, New York, North Carolina, North Dakota, Oklahoma, Ohio, Pennsylvania, South Carolina, South Dakota, Tennessee (excluding Wilson County), Texas, Virginia, West Virginia, Wisconsin.

Check the registration status of each product in each state before using.

READ THE ENTIRE LABEL FOR **XTENDIMAX® WITH VAPORGRIP® TECHNOLOGY**
BEFORE PROCEEDING WITH THE USE DIRECTIONS CONTAINED IN THIS LABEL

READ AND FOLLOW ALL APPLICABLE DIRECTIONS, RESTRICTIONS, AND PRECAUTIONS ON THE CONTAINER LABEL AND BOOKLET AND WWW.XTENDIMAXAPPLICATIONREQUIREMENTS.COM.

Read the "LIMIT OF WARRANTY AND LIABILITY" statement at the end of the label before buying or using. If terms are not acceptable, return at once unopened.

Net contents:

EPA Establishment No.:

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1.0 INGREDIENTS

ACTIVE INGREDIENT:

Diglycolamine salt of dicamba (3,6-dichloro-*o*-anisic acid)* 42.8%
OTHER INGREDIENTS: 57.2%

TOTAL: 100.0%
* contains 29.0%, 3,6-dichloro-*o*-anisic acid (2.9 pounds acid equivalent per U.S. gallon or 350 grams per liter).

DICAMBA	GROUP	4	HERBICIDE

2.0 IMPORTANT PHONE NUMBERS

1. FOR PRODUCT INFORMATION OR ASSISTANCE IN USING THIS PRODUCT, CALL TOLL-FREE, 1-800-332-3111.
2. IN CASE OF AN EMERGENCY INVOLVING THIS HERBICIDE PRODUCT, OR FOR MEDICAL ASSISTANCE, CALL COLLECT, DAY OR NIGHT, (314)-694-4000.

IN CASE OF SPILL:

Steps to be taken in case material is released or spilled:

Dike and contain the spill with inert material (sand, earth, etc.) and transfer liquid and solid diking material to separate containers for disposal. Remove contaminated clothing, and wash affected skin areas with soap and water. Wash clothing before re-use. Keep the spill out of all sewers and open bodies of water.

3.0 PRECAUTIONARY STATEMENTS

3.1 Hazards to Humans and Domestic Animals

Keep out of reach of children.

CAUTION!

Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

FIRST AID	
IF IN EYES	• Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
IF SWALLOWED:	• Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow.

	• Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give anything by mouth to an unconscious person.
IF ON SKIN OR CLOTHING:	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 to 20 minutes. • Call a poison control center or doctor for treatment advice.
• Have the product container or label with you when calling a poison control center or doctor, or going for treatment. • You can call **(314) 694-4000**, collect day or night, for emergency medical treatment information. • This product is identified as **XtendiMax® With VaporGrip® Technology, EPA Registration No. 524-617.**	

PERSONAL PROTECTIVE EQUIPMENT (PPE)

All mixers, loaders, applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks

See "Engineering Controls Statement" for additional requirements.
Follow the manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

ENGINEERING CONTROLS STATEMENT

When handlers use closed systems, or enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

IMPORTANT: When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for "all mixers, loaders, applicators and other handlers" and have such PPE immediately available for use in an emergency, such as a spill or equipment breakdown.

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

3.2 Environmental Hazards

Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters or rinsate. Apply this product only as directed on the label.

This chemical is known to leach through soil into ground water under certain conditions as a result of agricultural use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.

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Ground and Surface Water Protection

Point source contamination - To prevent point source contamination, do not mix or load this pesticide product within 50 feet of wells (including abandoned wells and drainage wells), sink holes, perennial or intermittent streams and rivers, and natural or impounded lakes and reservoirs. Do not apply pesticide product within 50 feet of wells. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pad or properly diked mixing/loading areas as described below.

Mixing, loading, rinsing, or washing operations performed within 50 feet of a well are allowed only when conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be on or move across the pad. The pad must be self-contained to prevent surface water flow over or from the pad. The pad capacity must be maintained at 110% that of the largest pesticide container or application equipment used on the pad and have sufficient capacity to contain all product spills, equipment or container leaks, equipment wash waters, and rainwater that may fall on the pad. The containment capacity does not apply to vehicles delivering pesticide shipments to the mixing/loading site. States may have in effect additional requirements regarding wellhead setbacks and operational containment.

Care must be taken when using this product to prevent: a) back siphoning into wells, b) spills or c) improper disposal of excess pesticide, spray mixtures or rinsates. Check valves or anti-siphoning devices must be used on all mixing equipment.

Movement by surface runoff or through soil - Do not apply under conditions which favor runoff. Do not apply to impervious substrates such as paved or highly compacted surfaces in areas with high potential for ground water contamination. Ground water contamination may occur in areas where soils are permeable or coarse and ground water is near the surface. Do not apply to soils classified as sand with less than 3% organic matter and where ground water depth is shallow. To minimize the possibility of ground water contamination, carefully follow application rate recommendations as affected by soil type in the Crop Specific Information section of this label.

Movement by water erosion of treated soil - Do not apply or incorporate this product through any type of irrigation equipment nor by flood or furrow irrigation. Ensure treated areas have received at least one-half inch rainfall (or irrigation) before using tailwater for subsequent irrigation of other fields.

Endangered Species Concerns
Use of this product in a manner inconsistent with its labeling may pose a hazard to endangered or threatened species. When using this product, you must follow the measures contained in the Endangered Species Protection Bulletin for the area in which you are applying the product. To obtain Bulletins, no more than six months before using this product, consult https://www.epa.gov/endangered-species or call 1-844-447-3813. You must use the Bulletin valid for the month in which you will apply the product.

It is a Federal offense to use any pesticide in a manner that results in the death of an endangered species.

3.3 Physical or Chemical Hazards

Do not store or heat near oxidizing agents, hazardous chemical reaction may occur.

4.0 DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling. This product can only be used in accordance with the Directions for Use on this label. This labeling must be in the user's possession during application.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulations.

This is a restricted use pesticide.

4.1 Training

Prior to applying this product in the 2019 growing season and each growing season thereafter, all applicator(s) applying this product must complete dicamba or auxin-specific training. If training is available and required by the state where the applicator intends to apply this product, the applicator must complete that training. If the state where the application is intended does not require auxin or dicamba-specific training, then the applicator must complete dicamba or auxin-specific training provided by one of the following sources: a) a registrant of a dicamba product approved for in-crop use with dicamba-tolerant crops, or b) a state or state-authorized provider.

4.2 Record Keeping

Record keeping is required for applications of this product. **The certified applicator must keep the following records for a period of two years**; records must be generated as soon as practical but no later than 72 hours after application and a record must be kept for each application of Xtendimax with VaporGrip Technology. Records must be made available to State Pesticide Control Official(s), USDA, and EPA upon request. An example form summarizing record keeping requirements can be found on www.xtendimaxapplicationrequirements.com.

1. All Items required by 7 CFR Part 110 (RECORDKEEPING ON RESTRICTED USE PESTICIDES BY CERTIFIED APPLICATORS) including:
    a. The brand or product name
    b. The EPA registration number
    c. The total amount applied
    d. The month, day, and year of application
    e. The location of the application
    f. The crop, commodity, stored product, or site of application
    g. The size of treated area
    h. The name of the certified applicator
    i. The certification number of the certified applicator
2. Training: Date and provider of required training completed and proof of completion.
3. Receipts of Purchase: Receipts or copies for the purchase of this product.
4. Product Label: A copy of this product label, and any state special local needs label that supplements this label.
5. Crop Planting Date: Record of the date at which the crop was planted.
6. Buffer Requirement: Record of the buffer distance calculation and any areas included within the buffer distance calculations as allowed in Section 9.1.4.a.
7. Sensitive Crops Awareness: Record that a sensitive crop registry was consulted and survey adjacent fields documenting the crops/areas surrounding the field prior to application. At a minimum, records must include the name of the sensitive crop registry and the date it was consulted and documentation of adjacent crops/areas and the date the survey was conducted (read Section 9.1.4.b for additional information).
8. Start and Finish Times of Each Application: Record of the time at which the application started and the time when the application finished.
9. Application Timing: Record of the type of application (for example: pre-emergence, post-emergence) and number of days after planting if post-emergence.
10. Air Temperature: Record of the air temperature in degrees Fahrenheit at the start and completion of each application.

11. Wind Speed and Direction: Record of the wind speed and direction (the direction from which the wind is blowing) at boom height at the start and completion of each application of this product (Read Section 9.1.1 for information on wind speed).
12. Nozzle and Pressure: Record of the spray nozzle manufacturer/brand, type, orifice size, and operating pressure used during each application of this product (Read Section 9.1.1 for information on nozzles and pressures.)
13. Tank Mix Products: Record of the brand names and EPA registration numbers (if available) for all products (pesticides, adjuvants, and other products) that were tank mixed with this product for each application (Read Section 8.0 for more information on tank mixing.)
14. Spray System Cleanout: Record of compliance with the section of this label titled Section 9.5: Proper Spray System Equipment Cleanout. At a minimum, records must include the confirmation that the spray system was clean before using this product and that the post-application cleanout was completed in accordance with Section 9.5.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about Personal Protective Equipment (PPE), and restricted-entry intervals. The requirements in this box only apply to uses of this product that are covered by the WPS.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 24 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as, plants, soil, or water is:

- Coveralls worn over short-sleeved shirt and short pants
- Chemical-resistant footwear plus socks
- Waterproof gloves
- Chemical-resistant headgear for overhead exposure
- Protective eyewear

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Do not enter or allow people (or pets) to enter the treated area until sprays have dried. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Do not enter or allow other people or pets to enter until sprays have dried.

5.0 STORAGE AND DISPOSAL

Proper pesticide storage and disposal are essential to protect against exposure to people and the environment due to leaks and spills, excess product or waste, and vandalism. Do not allow this product to contaminate water, foodstuffs, feed or seed by storage and disposal. Open dumping is prohibited. This product may not be mixed, loaded, or used within 50 feet of all wells including abandoned wells, drainage wells, and sinkholes. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pad or properly diked mixing/loading areas as described above

5.1 Pesticide Storage

Groundwater contamination may be reduced by diking and flooring of permanent liquid bulk storage sites with an impermeable material. Spillage or leakage should be contained and absorbed with clay granules, sawdust, or equivalent material for disposal.
Store in original container in a well-ventilated and away from food, pet food, feed, seed, fertilizers, and veterinary supplies. Avoid cross-contamination with other pesticides. Keep container closed to prevent spills and contamination.

5.2 Pesticide Disposal

To avoid wastes, use all material in this container, including rinsate, by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide

disposal program. Such programs are often run by state or local governments or by industry. All disposal must be in accordance with applicable federal, state and local regulations and procedures.
[*Alternate PESTICIDE DISPOSAL statement for transport vehicles only:* To avoid wastes, empty as much product from this transport vehicle as possible for repackaging or use in accordance with label directions. If wastes cannot be avoided, offer remaining product or rinsate to a waste disposal facility or pesticide disposal program. All disposal must be in accordance with applicable federal, state and local regulations and procedures.]

5.3 Container Handling and Disposal

[*Optional label statement if applicable*: See container label for container handling and disposal instructions and refilling limitations.]

[*CONTAINER HANDLING AND DISPOSAL STATEMENTS AND REFILLING LIMITATIONS FOR CONTAINER LABELS*]

[*CONTAINER HANDLING AND DISPOSAL STATEMENT AND REFILLING LIMITATION FOR NONREFILLABLE RIGID CONTAINERS OF LESS THAN 1-GALLON CAPACITY*]

Nonrefillable container. Do not reuse or refill this container.

[*Alternate container statement:* Nonrefillable container. Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state.]

Triple rinse this container promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Then offer this container for recycling, if available. If recycling is not available, dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.

[*Alternate container disposal statement:* Once properly rinsed, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or Monsanto at 1-800-ROUNDUP (1-800-768-6387). If recycling is not available, dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.]

[*CONTAINER HANDLING AND DISPOSAL STATEMENT AND REFILLING LIMITATION FOR NONREFILLABLE RIGID PLASTIC 2.5-GALLON CONTAINERS AND OTHER NONREFILLABLE CONTAINERS OF GREATER THAN 1-GALLON BUT EQUAL TO OR LESS THAN 5-GALLON CAPACITY*]

Nonrefillable container. Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state.

[*Alternate container statement:* Nonrefillable container. Do not reuse or refill this container.]

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Triple rinse or pressure rinse (or equivalent) this container promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Once properly rinsed, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. [*Optional container disposal statement:* To find the nearest site, contact your chemical dealer or Monsanto at 1-800-ROUNDUP (1-800-768-6387)]. If recycling is not available, dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.

[*Alternate container disposal statement:* Then offer this container for recycling, if available. If recycling is not available, dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.]

[*CONTAINER HANDLING AND DISPOSAL STATEMENT AND REFILLING LIMITATION FOR NONREFILLABLE RIGID PLASTIC 30-GALLON CONTAINERS AND OTHER NONREFILLABLE CONTAINERS OF GREATER THAN 5-GALLON CAPACITY*]

Nonrefillable container. Do not reuse or refill this container.

[*Alternate container statement:* Nonrefillable container. Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state.]

Triple rinse or pressure rinse (or equivalent) this container promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Once properly rinsed, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. [*Alternate container disposal statement:* To find the nearest site, contact your chemical dealer or Monsanto at 1-800-ROUNDUP (1-800-768-6387)]. If recycling is not available,

dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.

[*Alternate container disposal statement:* Then offer the container for recycling, if available. If recycling is not available, dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.]

[*Optional container label statement:* Return Properly Rinsed Container to Monsanto for Recycling Contact: 1-800-ROUNDUP (1-800-768-6387)]

[*CONTAINER HANDLING AND DISPOSAL STATEMENT AND REFILLING LIMITATION FOR ALL REFILLABLE CONTAINERS, EXCEPT TRANSPORT VEHICLES*]

Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose.

Cleaning this container before refilling is the responsibility of the refiller. Cleaning this container before final disposal is the responsibility of the person disposing of the container.

To clean this container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer this container for recycling, if available.

[*Optional container disposal statement:* To obtain information about recycling refillable containers, contact Monsanto Company at 1-800-ROUNDUP (1-800-768-6387)]

[*Optional container label statement:* Return Properly Rinsed Container to Monsanto for Recycling, Call 1-800-ROUNDUP (1-800-768-6387)]

[*CONTAINER HANDLING AND DISPOSAL STATEMENT FOR ALL TRANSPORT VEHICLES AS DEFINED IN 40 CFR 156.3]*

THIS LABEL FOR USE WITH TRANSPORT VEHICLES ONLY

Emptied container retains vapor and product residue. Observe all precautions stated on this label until the container is cleaned, reconditioned or destroyed. Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, and worn-out threads and closures. Clean thoroughly before reuse for transportation of a material of different composition or before retiring this transport vehicle from service.

[Alternative label statement: NET CONTENTS: See Bill of Lading]

[Alternative label statement: LOT: See Bill of Lading]

[Alternative label statement: For Net Contents and Lot Number, see Bill of Lading]

6.0 PRODUCT INFORMATION

XtendiMax® With VaporGrip® Technology is approved by U.S. EPA for all uses specified on this label in the following states, subject to county restriction as noted: Alabama, Arkansas, Arizona, Colorado, Delaware, Florida (excluding Palm Beach County), Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Michigan, Minnesota, Mississippi, Missouri, Nebraska, New Jersey, New Mexico, New York, North Carolina, North Dakota, Oklahoma, Ohio, Pennsylvania, South Carolina, South Dakota, Tennessee (excluding Wilson County), Texas, Virginia, West Virginia, Wisconsin.

Additional state restrictions and requirements may apply. The applicator must comply with any additional state requirements and restrictions.

This product is a water-soluble formulation intended for control and suppression of many annual, biennials, and perennial broadleaf weeds, as well as woody brush and vines listed in the WEEDS CONTROLLED section of this label. This product may be used for control of these weeds in asparagus, corn, cotton, conservation reserve programs, fallow cropland, grass grown for seed, hay, proso millet, pasture, rangeland, general farmstead (noncropland), small grains, sod farms and farmstead turf, sorghum, soybean, sugarcane, Cotton with XtendFlex Technology, Roundup Ready 2 Xtend Soybean, and XtendFlex Soybean.

XtendiMax® With VaporGrip® Technology is a contact, systemic herbicide, which can have moderate residual control on small seeded broadleaf weeds, including waterhemp, lambsquarters and Palmer pigweed, depending on rainfall and soil type.

XtendiMax® With VaporGrip® Technology is readily absorbed by plants through shoot and root uptake, translocates throughout the plant's system, and accumulates in areas of active growth. XtendiMax® With VaporGrip® Technology interferes with the plant's growth hormones (auxins) resulting in death of many broadleaf weeds.

Failure to properly clean the entire spray system can result in inadvertent contamination of the spray system. You must ensure that the spray system used to apply this product is clean before using this product.

Rainfast period: Rainfall or irrigation occurring within 4 hours after postemergence applications may reduce the effectiveness of this product.

Refer to the CROP-SPECIFIC INFORMATION and CROPS WITH XTEND TECHNOLOGY sections for application timing and other crop-specific details.

6.1 Restrictions

The applicator must read the entire label, including product labeling and follow all restrictions for XtendiMax® With VaporGrip® Technology. Restrictions included, but are not limited to:

- DO NOT APPLY THIS PRODUCT AERIALLY.
- DO NOT TANK MIX WITH PRODUCTS CONTAINING AMMONIUM SALTS SUCH AS AMMONIUM SULFATE (AMS) AND UREA AMMONIUM NITRATE. Small quantities of AMS can greatly increase the volatility potential of dicamba. Read the TANK MIXING INSTRUCTIONS of this label (Section 8.0) for instructions regarding other tank mix products.
- DO NOT APPLY TO CROPS UNDER STRESS DUE TO LACK OF MOISTURE, HAIL DAMAGE, FLOODING, HERBICIDE INJURY, MECHANICAL INJURY, INSECTS, OR WIDELY FLUCTUATING TEMPERATURES AS INJURY MAY RESULT.
- DO NOT APPLY THROUGH ANY TYPE OF IRRIGATION EQUIPMENT. DO NOT TREAT IRRIGATION DITCHES OR WATER USED FOR CROP IRRIGATION OR DOMESTIC PURPOSES.

- DO NOT MAKE APPLICATION OF THIS PRODUCT IF RAIN THAT MAY EXCEED SOIL FIELD CAPACITY AND RESULT IN SOIL RUNOFF IS EXPECTED IN THE NEXT 24 HOURS

Review the entire label including, specific crop use direction sections for additional restrictions.

7.0 WEED RESISTANCE MANAGEMENT

DICAMBA	GROUP	4	HERBICIDE

Dicamba mimics auxin (a plant hormone) resulting in a hormone imbalance in sensitive plants that interferes with normal cell division, cell enlargement, and protein synthesis. Dicamba active ingredient is a Group 4 herbicide based on the mode of action classification system of the Weed Science Society of America. Any weed population can contain plants naturally resistant to Group 4 herbicides. Weed species resistant to Group 4 herbicides can be effectively managed utilizing another herbicide from a different Group, or by using other cultural or mechanical practices.

7.1 Weed Management Practices

Certain agronomic practices can delay or reduce the likelihood that resistant weed populations will develop and can be utilized to manage weed resistance once it occurs.

Do not use less than the labeled rate of this product in a single application. Using the appropriate application rate can minimize the selection for resistant weeds.

Proactively implementing diversified weed control strategies to minimize selection for weed populations resistant to one or more herbicides is a best practice. A diversified weed management program may include the use of multiple herbicides with different sites of action and overlapping weed spectrum with or without tillage operations and/or other cultural practices. Research has demonstrated that using the labeled rate and directions for use is important to delay the selection for resistance.

The continued effectiveness of this product depends on the successful implementation of a weed resistance management program.

To aid in the prevention of developing weeds resistant to this product:

- Scout fields before application to ensure herbicides and rates will be appropriate for the weed species and weed sizes present.
- Start with a clean field, using either a burndown herbicide application or tillage.
- Control weeds early when they are relatively small (less than 4 inches).
- Apply full rates of XtendiMax® With VaporGrip® Technology for the most difficult to control weed in the field at the specified time (correct weed size) to minimize weed escapes.
- Avoid tank mixtures with other herbicides that reduce the efficacy of this product (through antagonism), or with ones that encourage application rates of this product below those specified on this label.
- Scout fields after application to detect weed escapes or shifts in weed species.
- Control weed escapes before they reproduce by seed or proliferate vegetatively.
- Report any incidence of non-performance of this product against a particular weed species to your Monsanto retailer or representative or call 1-844-RRXTEND (1-844-779-8363).
- If resistance is suspected, treat weed escapes with an herbicide having a site of action other than Group 4 and/or use non-chemical methods to remove escapes, as practical, with the goal of preventing further seed production. EPA defines suspected herbicide resistance as the situation where the following three indicators occur at a site or location:

- Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds;
- A spreading patch of non-controlled plants of a particular weed species; and
- Surviving plants mixed with controlled individuals of the same species.

Additionally, users should follow as many of the following herbicide resistance management practices as is practical:

- Use a broad spectrum soil-applied herbicide with other sites of action as a foundation in a weed control program.
- Utilize sequential applications of herbicides with alternative sites of action.
- Rotate the use of this product with non-Group 4 herbicides.
- Avoid making more than two applications of dicamba and any other Group 4 herbicides within a single growing season unless mixed with an herbicide with a different mechanism of action with an overlapping spectrum for the difficult to control weeds.
- Incorporate non-chemical weed control practices, such as mechanical cultivation, crop rotation, cover crops and weed-free crop seeds, as part of an integrated weed control program.
- Use good agronomic principles that enhance crop development and crop competitiveness.
- Thoroughly clean plant residues from equipment before leaving fields suspected to contain resistant weeds.
- Manage weeds in and around fields, during and after harvest to reduce weed seed production.

Contact the local agricultural extension service, Monsanto representative, agricultural retailer or crop consultant for further guidance on weed control practices as needed.

7.2 Management of Dicamba-Resistant Biotypes

Appropriate testing is critical in order to determine if a weed is resistant to dicamba. Contact your Monsanto representative to determine if resistance in any particular weed biotype has been confirmed in your area, or visit on the Internet www.weedresistancemanagement.com or www.weedscience.org.

Monsanto Company is not responsible for any losses that result from the failure of this product to control dicamba-resistant weed biotypes.

The following good agronomic practices can reduce the spread of confirmed dicamba-resistant biotypes:

- If a naturally occurring resistant biotype is present in your field, this product may be tank-mixed or applied sequentially with an appropriately labeled herbicide with a different mode of action to achieve control (read Section 8.0 for more information on tank mixing).
- Cultural and mechanical control practices (e.g., crop rotation or tillage) can also be used as appropriate.
- Scout treated fields after herbicide application and control weed escapes, including resistant biotypes, before they set seed.
- Thoroughly clean equipment, as practical, for all weed seeds before leaving fields known to contain resistant biotypes.

8.0 TANK MIXING INSTRUCTIONS

Auxin herbicides such as dicamba have the potential to volatilize in lower pH spray mixtures. Knowing the pH of your spray mixture and making the appropriate adjustments to avoid a low pH spray mixture (e.g., pH less than 5) can reduce the potential for volatilization to occur. Talk to your local agricultural consultant, extension agent, or Bayer representative for recommendations to prevent low pH spray mixtures.

XtendiMax® With VaporGrip® Technology may only be tank-mixed with products that have been tested and found not to adversely affect the offsite movement potential of XtendiMax® With VaporGrip® Technology. The applicator must check the website found at www.xtendimaxapplicationrequirements.com no more than 7 days before applying XtendiMax® With VaporGrip® Technology.

DO NOT tank mix any product with XtendiMax® With VaporGrip® Technology unless:

1. The intended tank-mix product is identified on the list of tested products found at www.xtendimaxapplicationrequirments.com;
2. The intended products are not prohibited on either this label or the label of the tank mix product; and
3. All requirements and restrictions on www.xtendimaxapplicationrequirments.com are followed.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, MONSANTO MAKES NO RECOMMENDATION OR WARRANTY HEREIN REGARDING THE USE OF ANY PRODUCT THAT MAY APPEAR ON THE WEBSITE REFERENCED ABOVE, REGARDLESS OF WHETHER SUCH PRODUCT IS USED ALONE OR IN A TANK MIX WITH XTENDIMAX® WITH VAPORGRIP® TECHNOLOGY. BUYER AND ALL USERS ARE SOLELY RESPONSIBLE FOR ANY LACK OF PERFORMANCE, LOSS, OR DAMAGE IN CONNECTION WITH THE USE OR HANDLING OF ANY SUCH PRODUCT ALONE OR IN A TANK MIX WITH XTENDIMAX® WITH VAPORGRIP® TECHNOLOGY. See the section titled "LIMIT OF WARRANTY AND LIABILITY" herein for more information.

8.1 Compatibility Test for Mix Components

Before mixing components, always perform a compatibility jar test.

- For 15 gallons per acre spray volume, use 2.5 cups (591.5 mL) of water. For other spray volumes, adjust rates accordingly. Only use water from the intended source at the source temperature.
- Add components in the sequence indicated in the Mixing Order section below using 2 teaspoons for each pound or 1 teaspoon for each pint of labeled use rate per acre.
- Cap the jar and invert 10 cycles between component additions.
- When the components have all been added to the jar, let the solution stand for 15 minutes.
- Evaluate the solution for uniformity and stability. The spray solution should not have free oil on the surface; fine particles that precipitate to the bottom; or thick (clabbered) texture. If the spray solution is not compatible, repeat the compatibility test with the addition of a suitable compatibility agent. If the solution is then compatible, use the compatibility agent as directed on its label. If the solution is still incompatible, then do not mix the ingredients in the same tank.

8.2 Mixing Order

Only use approved tank mix products as directed on www.xtendimaxapplicationrequirements.com. Always read and follow label directions for all products in the tank mixture. It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. See section 8.0 for additional restrictions on tank mixing.

1. Ensure application and mixing equipment are clean and in proper working order
2. Water - Begin by agitating a thoroughly **clean sprayer** tank three-quarters full of clean water.
3. Agitation - Maintain constant agitation throughout mixing and application.

4. Drift Reducing Adjuvants (DRA)-(when applicable)
5. Inductor - If an inductor is used, rinse it thoroughly after each component has been added.
6. Products in PVA bags - Place any product contained in water-soluble PVA bags into the mixing tank. Wait until all water-soluble PVA bags have fully dissolved and the product is evenly mixed in the spray tank before continuing.
7. Water-dispersible products (dry flowables, wettable powders, suspension concentrates, or suspo-emulsions)
8. Water-soluble products (such as XtendiMax® With VaporGrip® Technology)
9. Emulsifiable concentrates (such as oil concentrate when applicable)
10. Water-soluble additives (when applicable)
11. Add remaining quantity of water.

Maintain constant agitation during application

8.3 Adjuvants, Drift Reducing Adjuvants, Surfactants, and Other Tank Mixed Products

See Section 8.0 TANK MIXING INSTRUCTIONS for tank mixing instructions for adjuvants, drift reducing adjuvants, surfactants, and other tank mixed products.

9.0 APPLICATION EQUIPMENT AND TECHNIQUES

DO NOT APPLY THIS PRODUCT USING AERIAL SPRAY EQUIPMENT.

XtendiMax® With VaporGrip® Technology can be applied to actively growing weeds as broadcast, band, or spot spray applications using water as a carrier. For best results, treat weeds early when they are relatively small (less than 4 inches). Timely application to small weeds early in the season will improve control and reduce weed competition. Refer to Table 1 for XtendiMax® With VaporGrip® Technology application rates for control or suppression by weed type and growth stage. For crop-specific application timing and other details, refer to the CROP-SPECIFIC INFORMATION section of this label.

APPLY THIS PRODUCT USING PROPERLY MAINTAINED AND CALIBRATED EQUIPMENT CAPABLE OF DELIVERING THE REQUIRED VOLUMES.

Using a hooded sprayer or other drift reduction technology in combination with approved nozzles may further reduce drift potential.

Cultivation: Do not cultivate within 7 days after applying this product.

Table 1. XtendiMax® With VaporGrip® Technology Application Rates for Control or Suppression by Weed Type and Growth Stage
Use rate limitations are given in sections 10 (RESTRICTIONS), 11 (CROP-SPECIFIC INFORMATION), and 12 (CROPS WITH XTEND TECHNOLOGY)

Weed Type and Stage	Rate Per Acre	Weed Type and Stage	Rate Per Acre
Annual[1]		**Perennial**	
Small, actively growing	11 – 22 fluid ounces	Top growth suppression	11 – 22 fluid ounces
Established weed growth	22 – 33 fluid ounces	Top growth control and root suppression	22 – 44 fluid ounces
		Noted perennials (footnote 1 in Section 13.0).	44 fluid ounces
		Other perennials (without footnote 1 in Section	44 fluid ounces

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		13.0)[3]	
Biennial Rosette diameter 1 – 3 inches Rosette diameter 3 inches or more Bolting	 11 – 22 fluid ounces 22 – 44 fluid ounces 44 fluid ounces	**Woody Brush & Vines** Top growth suppression Top growth control[2,3] Stems and stem suppression[3]	 22 – 44 fluid ounces 44 fluid ounces 44 fluid ounces

[1] Rates below 11 fluid ounces per acre may provide control or suppression but should typically be applied with other herbicides that are effective on the same species and biotype.
[2] Woody Species listed in section 13.0 may require tank mixes for adequate top growth control.
[3] DO NOT broadcast apply more than 44 ounces per acre for a single application and DO NOT exceed broadcast applications of more than 88 ounces per acre within the growing season when a sequential application is needed for control. Use the higher rate when treating dense vegetation or perennial weeds with established root growth. Perennials and Woody Species are defined as those listed in Section 13.0.

9.1 Spray Drift Management

Do not allow herbicide solution to mist, drip, drift or splash onto desirable vegetation because severe injury or destruction to desirable broadleaf plants could result.

The most effective way to reduce drift potential is to apply large droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if the application is made improperly, or under unfavorable environmental conditions (see the **"Temperature and Humidity"** and "**Temperature Inversions"** sections of this label).

9.1.1 Sprayer Setup

The following sprayer setup requirements for drift management must be followed:

- **Nozzle type.** The applicator must use an approved nozzle within a specified pressure range as found at www.xtendimaxapplicationrequirements.com when applying XtendiMax® With VaporGrip® Technology. Do not use any other nozzle and pressure combination not specifically listed on this website.

- **Spray Volume.** The applicator must apply this product in a **minimum of 15 gallons of spray solution per acre**. See Section 8.0 for information on approved tank mix products.

- **Equipment Ground Speed.** Do not exceed a **ground speed of 15 miles per hour**. Select a ground speed that will deliver the desired spray volume while maintaining the desired spray pressure, but slower speeds generally result in better spray coverage and deposition on the target area. Provided the applicator can maintain the required nozzle pressure, it is recommended that tractor speed is reduced to 5 miles per hour at field edges.

- **Spray boom Height.** Do not exceed a **boom height of 24 inches** above target pest or crop canopy. Excessive boom height will increase the drift potential.

- **Wind Speed.** Do not apply when wind speeds are **less than 3 MPH or greater than 10 MPH**. Only apply when wind speed at boom height is between 3 and 10 mph.

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9.1.2 Temperature and Humidity

When making applications in low relative humidity or temperatures above 91 degrees Fahrenheit, set up equipment to produce larger droplets to compensate for evaporation (for example: increase orifice size and/or increase spray volume as directed on www.xtendimaxapplicationrequirements.com). Larger droplets have a lower surface to volume ratio and can be impacted less by temperature and humidity. Droplet evaporation is most severe when conditions are both hot and dry.

9.1.3 Temperature Inversions

Do not apply this product during a temperature inversion as the off-target movement potential is high.
In general, temperature inversions are more likely during nighttime hours. Applications of this product may ONLY occur one hour after sunrise though two hours before sunset.

- During a temperature inversion, the atmosphere is very stable and vertical air mixing is restricted, which can cause small, suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light, variable winds common during inversions.
- Temperature inversions can be characterized by increasing temperatures with altitude and can be common on evenings and nights with limited cloud cover and light to no wind. Cooling of air at the earth's surface takes place and warmer air is trapped above it. Temperature inversions can begin to form as the sun sets and often continue into the morning.
- Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.
- The inversion will typically dissipate with increased winds (above 3 miles per hour) or at sunrise when the surface air begins to warm (generally 3°F from morning low).

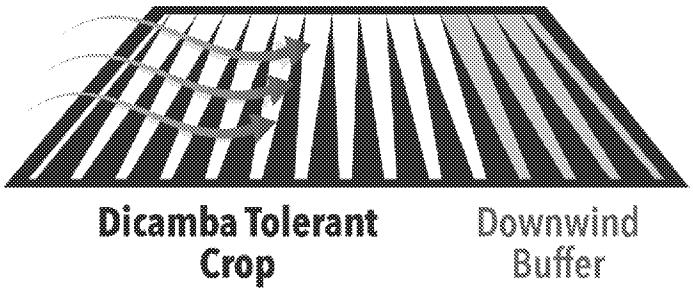
9.1.4 Buffer Requirements and Protection of Sensitive Crops

Do not apply under circumstances where drift may occur to food, forage, or other plantings that might be damaged or the crops rendered unfit for sale, use, or consumption.

9.1.4.a. Buffer Requirement

The applicator **must always maintain** a 110 foot downwind buffer (when applying up to 22 fluid ounces of this product per acre) or a 220 foot downwind buffer (when applying greater than 22 up to 44 fluid ounces of this product per acre) between the last treated row and the nearest downwind field edge (in the direction the wind is blowing).

If you have questions regarding Buffer Requirement contact Bayer at 1-844-RRXTEND prior to application.



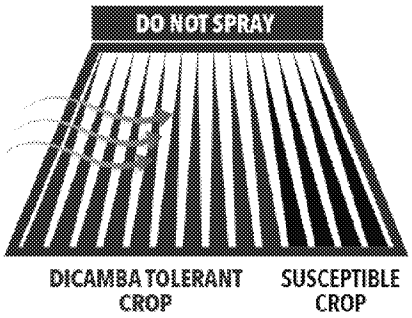
The following areas may be included in the buffer distance calculation when directly adjacent to the treated field edges:

- Roads, paved or gravel surfaces, mowed and/or managed areas adjacent to field such as rights of way.
- Planted agricultural fields containing: corn, dicamba tolerant cotton, dicamba tolerant soybean, sorghum, proso millet, small grains and sugarcane. If the applicator intends to include such crops as dicamba tolerant cotton and/or dicamba tolerant soybeans in the buffer distance calculation, the applicator must confirm the crops are in fact dicamba tolerant.
- Agricultural fields that have been prepared for planting
- Areas covered by the footprint of a building, silo, or other man made structure with walls and or roof.

9.1.4.b. **Sensitive Crops**

DO NOT APPLY this product when the wind is blowing toward adjacent non-dicamba tolerant sensitive crops; this includes **NON-DICAMBA TOLERANT SOYBEAN AND COTTON.**

It is important for the applicator to be aware that wind direction may vary during the application. If wind direction shifts such that the wind is blowing toward adjacent non-dicamba tolerant sensitive crops, the applicator must cease the application.



Before making an application, consult a sensitive crop registry (such as FieldWatch); and survey adjacent fields and confirm the crops/areas surrounding the field prior to application. At a minimum, records must include the name of the sensitive crop registry and the date it was consulted and documentation of adjacent crops/areas and the date the survey was conducted.

Sensitive crops include, but are not limited to non-dicamba tolerant soybeans and cotton, tomatoes and other fruiting vegetables (EPA crop group 8), fruit trees, cucurbits (EPA crop group 9), grapes, beans, flowers, ornamentals, peas, potatoes, sunflower, tobacco, other broadleaf plants, and including plants in a greenhouse. Severe injury or destruction could occur if any contact between this product and these plants occurs.

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If you have questions regarding sensitive crop registries contact Bayer at 1-844-RRXTEND prior to application.

9.1.5 Application Awareness

AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR.

The interaction of equipment and weather related factors must be monitored to maximize performance and on-target spray deposition. The applicator is responsible for considering all of these factors when making a spray decision. The applicator is responsible for compliance with state and local pesticide regulations, including any state or local pesticide drift regulations.

9.2 Ground Application (Banding)

When applying XtendiMax® With VaporGrip® Technology by banding, determine the amount of herbicide and water volume needed using the following formula:

$$\frac{\text{Bandwidth in inches}}{\text{Row width in inches}} \times \text{Broadcast rate per acre} = \text{Banding herbicide rate per acre}$$

$$\frac{\text{Bandwidth in inches}}{\text{Row width in inches}} \times \text{Broadcast volume per acre} = \text{Banding water volume per acre}$$

9.3 Ground Application (Broadcast)

Water Volume: Use a **minimum of 15 gallons** of spray solution per broadcast acre for optimal performance. Use 20 gallons per acre when treating dense or tall vegetation.

Application Equipment: Select nozzles (refer to section 9.1.1 Nozzle type of this product label) designed to produce minimal amounts of fine spray particles. Spray with nozzles as close to the weeds as practical for good weed coverage.

Using a hooded sprayer or other drift reduction technology in combination with approved nozzles may further reduce drift potential.

9.4 Ground Application (Wipers)

XtendiMax® With VaporGrip® Technology may be applied through wiper application equipment to control or suppress actively growing broadleaf weeds, brush and vines. Use a solution containing 1 part XtendiMax® With VaporGrip® Technology to 1 part water. Do not apply greater than 1 lb dicamba acid equivalent (1 quart of this product) per acre per application. Do not contact desirable vegetation with herbicide solution. Wiper application may be made to crops (including pastures) and non-cropland areas described in this label except for non-dicamba-tolerant cotton, sorghum, and non-dicamba-tolerant soybean.

9.5 Proper Spray System Equipment Cleanout

You must ensure that the spray system used to apply this product is clean before using this product.

Failure to properly clean the entire spray system can result in inadvertent contamination of the spray system. Small quantities of dicamba may cause injury to non-dicamba tolerant soybeans and other sensitive crops (see Section 9.1.4 of this label for more information).

Inadvertent contamination can also occur in equipment used for bulk product handling and mixing prior to use in the spray system. Care should be taken to reduce contamination not only in the spray system but in any equipment used to transfer or deliver product. For example, bulk handling and mixing equipment containing this product should be segregated when possible to reduce potential for cross-contamination. Consider using block and check valves to avoid backflow during transfer. Piping should be reviewed to ensure there not potential for product build-up. Dedicated nurse trucks and tender equipment should be used when possible.

Clean equipment immediately after using this product, using a triple rinse procedure as follows:

1. After spraying, drain the sprayer (including boom and lines) immediately. Do not allow the spray solution to remain in the spray boom lines overnight prior to flushing.
2. Flush tank, hoses, boom and nozzles with clean water. If equipped, open boom ends and flush.
3. Inspect and clean all strainers, screens and filters.
4. Prepare a cleaning solution with a commercial detergent or sprayer cleaner or ammonia according to the manufacturer's directions.
5. Take care to wash all parts of the tank, including the inside top surface. Start agitation in the sprayer and thoroughly recirculate the cleaning solution for at least 15 minutes. All visible deposits must be removed from the spraying system.
6. Flush hoses, spray lines and nozzles for at least 1 minute with the cleaning solution.
7. Remove nozzles, screens and strainers and clean separately in the cleaning solution after completing the above procedures.
8. Drain pump, filter and lines.
9. Rinse the complete spraying system with clean water.
10. Clean and wash off the outside of the entire sprayer and boom.
11. All rinse water must be disposed of in compliance with local, state, and federal guidelines.

10.0 ADDITIONAL RESTRICTIONS

Maximum Application Rates: The maximum application or use rates stated throughout this label are given in units of volume (fluid ounces or quarts) of this product per acre. However, the maximum allowed application rates apply to this product combined with the use of any and all other herbicides containing the active ingredients dicamba, whether applied separately or as a tank mixture, on a basis of total pounds of dicamba (acid equivalents) per acre. If more than one dicamba-containing product is applied to the same site within the same year, you must ensure that the total use of dicamba (pounds acid equivalents) does not exceed 2 pounds/A per year from all applications. See the INGREDIENTS section of this label for necessary product information.

Maximum seasonal use rate: Refer to Table 2. Crop-Specific Restrictions for crop-specific maximum seasonal use rates. Do not exceed 88 fluid ounces of XtendiMax® With VaporGrip® Technology (2 pounds acid equivalent) per acre, per year.

Preharvest Interval (PHI): Refer to the CROP-SPECIFIC INFORMATION section for preharvest intervals.

Restricted Entry Interval (REI): 24 hours

Crop Rotational Restrictions

No rotational cropping restrictions apply when rotating to Roundup Ready 2 Xtend® Soybeans, XtendFlex® Soybeans, or cotton seed with XtendFlex® Technology (including Bollgard® 3 XtendFlex® Cotton, Bollgard II® XtendFlex® Cotton, or XtendFlex® Cotton). For other crops the interval between application and planting rotational crop is given below. When counting days from the application of this product, do not count days when the ground is frozen. Planting at intervals less than specified below may result in crop injury. Moisture is essential for the degradation of this herbicide in soil. If dry weather prevails, use cultivation to allow herbicide contact with moist soil.

Planting/replanting restrictions at application rates of 33 fluid ounces of this product per acre per season or less: Follow the planting restrictions in the directions for use for Preplant application in the Crop Specific Information section of this label. For corn, cotton (except cotton seed with XtendFlex® Technology), sorghum, and soybean (except Roundup Ready 2 Xtend® Soybean and XtendFlex® Soybean), follow the planting restrictions in the directions for use for preplant application in **Section 11. Crop-Specific Information** of this label. Do not plant barley, oat, wheat, and other grass seedings for 15 days for every 11 fluid ounces of this product applied per acre east of the Mississippi River and 22 days for every 11 fluid ounces per acre applied west of the Mississippi River. No planting restrictions apply beyond 120 days after application of this product.

Planting/replanting restrictions at application rates of more than 33 fluid ounces and up to 88 fluid ounces of this product per acre per season: Wait a minimum of 120 days after application of this product before planting corn, sorghum and cotton (except cotton seed with XtendFlex® Technology) east of the Rocky Mountains and before planting all other crops (except Roundup Ready 2 Xtend® Soybean and XtendFlex® Soybean) grown in areas receiving 30 inches or more rainfall annually. Wait a minimum of 180 days before planting crops in areas with less than 30 inches of annual rainfall. Wait a minimum of 30 days for every 22 fluid ounces of this product applied per acre before planting barley, oat, wheat, and other grass seedings east of the Mississippi River and 45 days for every 22 fluid ounces of this product applied per acre west of the Mississippi River.

Table 2. Crop-Specific Restrictions[1]

Crop	Maximum Rate Per Acre Per Application (fl oz)	Maximum Rate Per Acre Per Season (fl oz)	Livestock Grazing or Feeding
Asparagus	22	22	Yes
Barley; Fall Spring	11 11	16.5 15	Yes
Conservation Reserve Program (CRP)	44	88	Yes
Corn	22	33	Yes[2]
Cotton	11	11	Yes

Cotton with XtendFlex Technology	44	88	Yes
Fallow Ground	44	88	Yes
Grass grown for seed	44	88	Yes
Oats	5.5	5.5	Yes
Pastureland	44	44	Yes
Proso Millet	5.5	5.5	Yes
Small grains grown for grass, forage, fodder, hay and/or pasture	22	22	Yes
Sorghum	11	22	Yes
Soybean	44	44	Yes
Roundup Ready 2 Xtend Soybean and XtendFlex Soybean	44	88	Yes
Sugarcane	44	88	Yes
Triticale	5.5	5.5	Yes
Sod farms and farmstead turf	44	44	Yes
Wheat	11	22	Yes
[1]Refer to section **11. CROP-SPECIFIC INFORMATION** and section **12. CROPS WITH XTEND TECHNOLOGY** for more details. [2]Once the crop reaches the ensilage (milk) stage or later in maturity			

11.0 CROP-SPECIFIC INFORMATION

Read Sections: 8.0 for Tank Mixing Instructions and 9.1.4 for Buffer Requirements and Sensitive Crops for information on tank mixing, buffer requirements, and sensitive crops.

11.1 Asparagus

Apply XtendiMax® With VaporGrip® Technology to emerged and actively growing weeds in 40 - 60 gallons of diluted spray per treated acre immediately after cutting the field, but at least 24 hours before the next cutting. Multiple applications may be made per growing season.

If spray contacts emerged spears, crooking (twisting) of some spears may result. If such crooking occurs, discard affected spears.

Rates: Apply 11-22 fluid ounces of XtendiMax® With VaporGrip® Technology to control annual sowthistle, black mustard, Canada and Russian thistle, and redroot pigweed (carelessweed).

Apply 22 fluid ounces of XtendiMax® With VaporGrip® Technology to control common chickweed, field bindweed, nettleleaf goosefoot, and wild radish. Up to 2 applications may be made per growing season. Do not exceed a total of 22 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre, per crop year.

Do not harvest prior to 24 hours after treatment.

[Optional: Do not use in the Coachella Valley of California]

11.2 Between Crop Applications

Preplant Directions (Postharvest, Fallow, Crop Stubble, Set-Aside) for Broadleaf Weed Control:

XtendiMax® With VaporGrip® Technology can be applied either postharvest in the fall, spring, or summer during the fallow period or to crop stubble/set-aside acres. Apply XtendiMax® With VaporGrip® Technology as a broadcast or spot treatment to emerged and actively growing weeds after crop harvest (postharvest) and before a killing frost or in the fallow cropland or crop stubble the following spring or summer.

See the "Crop Rotational Restrictions" in Section 10 of this label for the recommended interval between application and planting to prevent crop injury.

Rates and Timings:

Apply 5.5 – 44 fluid ounces of XtendiMax® With VaporGrip® Technology per acre. Refer to Table 1 to determine use rates for specific targeted weed species. For best performance, apply XtendiMax® With VaporGrip® Technology when annual weeds are less than 4 inches tall, when biennial weeds are in the rosette stage and to perennial weed regrowth in late summer or fall following a mowing or tillage treatment. The most effective control of upright perennial broadleaf weeds such as Canada thistle and Jerusalem artichoke occurs if XtendiMax® With VaporGrip® Technology is applied when the majority of weeds have at least 4 – 6 inches of regrowth or for weeds such as field bindweed and hedge bindweed that are in or beyond the full bloom stage.

Avoid disturbing treated areas following application. Treatments may not kill weeds that develop from seed or underground plant parts such as rhizomes or bulblets, after the effective period for XtendiMax® With VaporGrip® Technology. For seedling control, a follow-up program or other cultural practices could be instituted. For small grain in-crop uses of XtendiMax® With VaporGrip® Technology, refer to the small grain section for details.

11.3 Conservation Reserve Program (CRP)

XtendiMax® With VaporGrip® Technology is recommended for use on both newly seeded and established grasses grown in Conservation Reserve or federal Set-Aside Programs. Treatments of XtendiMax® With VaporGrip® Technology will injure or may kill alfalfa, clovers, lespedeza, wild winter peas, vetch, and other legumes.

Newly Seeded Areas

XtendiMax® With VaporGrip® Technology may be applied either preplant or postemergence to newly seeded grasses or small grains such as barley, oats, rye, sudanqrass, wheat, or other grain species grown as a cover crop. Postemergence applications may be made after seedling grasses exceed the 3-leaf stage. Rates of XtendiMax® With VaporGrip® Technology greater than 22 fluid ounces per treated acre may severely injure newly seeded grasses.

Preplant applications may injure new seedlings if the interval between application and grass planting is less than 45 days per 22 fluid ounces of XtendiMax® With VaporGrip® Technology applied per treated acre west of the Mississippi River or 20 days per 22 fluid ounces applied east of the Mississippi River.

Established Grass Stands

Established grass stands are perennial grasses planted one or more seasons prior to treatment. Certain species (bentgrass, carpetgrass, smooth brome, buffalograss, or St. Augustinegrass) may be injured when treated with more than 22 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre.

When applied at recommended rates, XtendiMax® With VaporGrip® Technology will control many annual and biennial weeds and provide control or suppression of many perennial weeds.

Rates and Timings

Apply 5.5 - 44 fluid ounces of XtendiMax® With VaporGrip® Technology per acre. Refer to **Table 1** for rates based on target weed species. Retreatments may be made as needed; however, do not exceed a total of 88 fluid ounces (4 pints) of XtendiMax® With VaporGrip® Technology per acre per year.

11.4 Corn (Field, Pop, Seed, And Silage)

Direct contact of XtendiMax® With VaporGrip® Technology with corn seed must be avoided. If corn seeds are less than 1.5 inches below the surface, delay application until corn has emerged.

Applications of XtendiMax® With VaporGrip® Technology to corn during periods of rapid growth may result in temporary leaning. Corn will usually become erect within 3 to 7 days. Cultivation should be delayed until after corn is growing normally to avoid breakage.

Corn may be harvested or grazed for feed once the crop has reached the ensilage (milk) stage or later in maturity.

Up to 2 applications of XtendiMax® With VaporGrip® Technology may be made during a growing season. Sequential applications must be separated by 2 weeks or more.

Do not apply XtendiMax® With VaporGrip® Technology to seed corn or popcorn without first verifying with your local seed corn company (supplier) the selectivity of XtendiMax® With VaporGrip® Technology on your inbred line or variety of popcorn. This precaution will help avoid potential injury of sensitive varieties.

Avoid using crop oil concentrates after crop emergence as crop injury may result. Use crop oil concentrates only in dry conditions when corn is less than 5 inches tall when applying XtendiMax® With VaporGrip® Technology.

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Use of sprayable fluid fertilizer as the carrier is not recommended for applications of XtendiMax® With VaporGrip® Technology made after corn emergence.

XtendiMax® With VaporGrip® Technology is not registered for use on sweet corn.

Preplant and Preemergence Application in No-Tillage Corn:

Rates: Apply 22 fluid ounces of XtendiMax® With VaporGrip® Technology per acre on medium- or fine-textured soils containing 2.5% or greater organic matter. Use 11 fluid ounces per acre on coarse soils (sand, loamy sand, and sandy loam) or medium- and fine-textured soils with less than 2.5% organic matter.

Timing: XtendiMax® With VaporGrip® Technology can be applied to emerging weeds before, during, or after planting a corn crop. When planting into a legume sod (e.g., alfalfa or clover), apply XtendiMax® With VaporGrip® Technology after 4 – 6 inches of regrowth has occurred

Preemergence Application in Conventional or Reduced Tillage Corn:

Rates: Apply 22 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre on medium- or fine-textured soils containing 2.5% organic matter or more. Do not apply to coarse textured soils (sand, loamy sand, or sandy loam) of any soil with less than 2.5% organic matter until after corn emergence (See Early Postemergence uses below).

Timing: XtendiMax® With VaporGrip® Technology may be applied after planting and prior to corn emergence. Pre-emergence application of XtendiMax® With VaporGrip® Technology does not require mechanical incorporation to become active. A shallow mechanical incorporation is recommended if application is not followed by adequate rainfall or sprinkler irrigation. Avoid tillage equipment (e.g., drags, harrows) which concentrates treated soil over seed furrow as seed damage could result.

Preemergence control of cocklebur, jimsonweed, and velvetleaf may be reduced if conditions such as low temperature or lack of soil moisture cause delayed or deep germination of weeds.

Early Postemergence Application in All Tillage Systems:

Rates: Apply 22 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre. Reduce the rate to 11 fluid ounces per treated acre if corn is growing on coarse textured soils (sand, loamy sand, and sandy loam).

Timing: Apply between corn emergence and the 5-leaf stage or 8 inches tall, whichever occurs first. Refer to Late Postemergence Applications if the sixth true leaf is emerging from whorl or corn is greater than 8 inches tall.

Late Postemergence Application:

Rate: Apply 11 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre.

Timing: Apply XtendiMax® With VaporGrip® Technology from 8 - 36 inch tall corn or 15 days before tassel emergence, whichever comes first. For best performance, apply when weeds are less than 3 inches tall.

Apply directed spray when corn leaves prevent proper spray.

11.5 Cotton

For directions for use with crops with Xtend Technology see the "CROPS WITH XTEND TECHNOLOGY" section of this label.

Preplant Application:

Apply up to 11 fluid ounces of XtendiMax® With VaporGrip® Technology per acre to control emerged broadleaf weeds prior to planting cotton in conventional or conservation tillage systems.

For best performance, apply XtendiMax® With VaporGrip® Technology when weeds are in the 2 - 4 leaf stage and rosettes are less than 2 inches across.

Following application of XtendiMax® With VaporGrip® Technology and a minimum accumulation of 1 inch of rainfall or overhead irrigation, allow a minimum of 21 days between treatment and planting per application of 11 fluid ounces per acre or less. This plant back interval must be observed prior to planting cotton.

Do not apply preplant to cotton west of the Rockies.

Do not make XtendiMax® With VaporGrip® Technology preplant applications to cotton in geographic areas with average annual rainfall less than 25 inches.

If applying a spring preplant treatment following application of a fall preplant (postharvest) treatment, then the combination of both treatments may not exceed 2 pounds acid equivalent per acre.

11.6 Grass Grown For Seed

Apply 11 - 22 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre on seedling grass after the crop reaches the 3 -5 leaf stage. Apply up to 44 fluid ounces of XtendiMax® With VaporGrip® Technology on well-established perennial grass. For best performance, apply XtendiMax® With VaporGrip® Technology when weeds are in the 2 - 4 leaf stage and rosettes are less than 2 inches across. Use the higher level of listed rate ranges when treating more mature weeds or dense vegetative growth.

To suppress annual grasses such as brome (downy and ripgut), rattail fescue, and windgrass, apply up to 44 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre in the fall or late summer after harvest and burning of established grass seed crops. Applications should be made immediately following the first irrigation when the soil is moist and before weeds have more than 2 leaves.

Do not apply XtendiMax® With VaporGrip® Technology after the grass seed crop begins to joint.

Refer to the Pasture, Hay, Rangeland, and General Farmstead section for grazing and feeding restrictions.

11.7 Proso Millet

For use only within Colorado, Nebraska, North Dakota, South Dakota, [Optional: **and Wyoming].**

XtendiMax® With VaporGrip® Technology combined with an appropriate tank-mix partner will provide control or suppression of the annual broadleaf weeds listed in **Section 13.**

11.8 Pasture, Hay, Rangeland, And General Farmstead (Noncropland)

XtendiMax® With VaporGrip® Technology is recommended for use on pasture, hay, rangeland, and general farmstead (non-cropland) (including fencerows and non-irrigation ditch banks) for control or suppression of broadleaf weed and brush species listed in Section 12.

XtendiMax® With VaporGrip® Technology may also be applied to non-cropland areas to control broadleaf weeds in noxious weed control programs, districts, or areas including broadcast or spot treatment of roadsides and highways, utilities, railroad, and pipeline rights-of-way. Noxious weeds must be recognized at the state level, but programs may be administered at state, county, or other level.

XtendiMax® With VaporGrip® Technology uses described in this section also pertain to grasses and small grains (forage sorghum, rye, sudangrass, or wheat) grown for grass, forage, fodder, hay and/or pasture use only. Grasses and small grains not grown for grass, forage, fodder, hay and/or pasture must comply with crop-specific uses in this label. Some perennial weeds may be controlled with lower rates of XtendiMax® With VaporGrip® Technology (refer to **Table 1**).

Rates and Timings

Refer to **Table 1** for rate selection based on targeted weed or brush species.

Rates above 44 fluid ounces of XtendiMax® With VaporGrip® Technology per acre are for spot treatments only. Spot treatment is defined as no more than a total of 1000 square feet of treated area per acre. Do not broadcast apply more than 44 fluid ounces per acre.

Retreatments may be made as needed; however, do not exceed a total of 44 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre during a growing season.

Grass grown for hay requires a minimum of 7-days between treatment and harvest.

Crop-Specific Restrictions

Do not apply more than 22 fluid ounces of XtendiMax® With VaporGrip® Technology per acre to small grains grown for pasture.

Newly seeded areas may be severely injured if more than 22 fluid ounces of XtendiMax® With VaporGrip® Technology is applied per acre.

Established grass crops growing under stress can exhibit various injury symptoms that may be more pronounced if herbicides are applied. Bentgrass, carpetgrass, buffalograss, and St. Augustin grass may be injured if more than 22 fluid ounces of XtendiMax® With VaporGrip® Technology is applied per acre. Usually colonial bent grasses are more tolerant than creeping types. Velvet grasses are most easily injured. Treatments will kill or injure alfalfa, clovers, lespedeza, wild winter peas, vetch, and other legumes.

Table 3 lists the timing restrictions for grazing or harvesting hay from treated fields. There are no grazing restrictions for animals other than lactating dairy animals.

Table 3. Timing Restrictions for Lactating Dairy Animals Following Treatment

XtendiMax® With VaporGrip® Technology Rate per Treated Acre (fluid ounces)	Days Before Grazing (days)	Days Before Hay Harvest (days)
Up to 22	7	37
Up to 44	21	51

- **Spot Treatments:** XtendiMax® With VaporGrip® Technology may be applied to individual clumps or small areas of undesirable vegetation using handgun or similar types of application equipment. Apply diluted sprays to allow complete wetting (up to runoff) of foliage and stems.

Cut Surface Treatments:

XtendiMax® With VaporGrip® Technology may be applied as a cut surface treatment for control of unwanted trees and prevention of sprouts of cut trees.

Rate: Mix 1 part XtendiMax® With VaporGrip® Technology with 1 - 3 parts water to create the application solution. Use the lower dilution rate when treating difficult-to-control species.

- **For Frill or Girdle Treatments**: Make a continuous cut or a series of overlapping cuts using an axe to girdle tree trunk. Spray or paint the cut surface with the solution.
- **For Stump Treatments:** Spray or paint freshly cut surface with the water mix. The area adjacent to the bark should be thoroughly wet.

Applications For Control of Dormant Multiflora Rose:

XtendiMax® With VaporGrip® Technology can be applied when plants are dormant as an undiluted spot treatment directly to the soil or as a Lo-Oil basal bark treatment using an oil-water emulsion solution.

- **Spot treatments:** Spot treatment applications of XtendiMax® With VaporGrip® Technology should be applied directly to the soil as close as possible to the root crown but within 6 - 8 inches of the crown. On sloping terrain, apply XtendiMax® With VaporGrip® Technology to the uphill side of the crown. Do not apply when snow or water prevents applying XtendiMax® With VaporGrip® Technology directly to the soil. The use rate of XtendiMax® With VaporGrip® Technology depends on the canopy diameter of the multiflora rose.

  Examples: Use 0.34, 1.38, or 3.23 fluid ounces of XtendiMax® With VaporGrip® Technology respectively, for 5, 10, or 15 feet canopy diameters.

- **Lo-Oil basal bark treatments:** For Lo-Oil basal bark treatments, apply XtendiMax® With VaporGrip® Technology to the basal stem region from the ground line to a height of 12 - 18 inches. Spray until runoff, with special emphasis on covering the root crown. For best results, apply XtendiMax® With VaporGrip® Technology when plants are dormant. Do not apply after bud break or when plants are showing signs of active growth. Do not apply when snow or water prevents applying XtendiMax® With VaporGrip® Technology to the ground line.

  To prepare approximately 2 gallons of a Lo-Oil spray solution:

  1) Combine 1.5 gallons of water, 1 ounce of emulsifier, 22 fluid ounces of XtendiMax® With VaporGrip® Technology, and 2.5 pints of No. 2 diesel fuel.
  2) Adjust the amounts of materials used proportionately to the amount of final spray solution desired.

  Do not exceed 8 gallons of spray solution mix applied per acre, per year.

11.9 SMALL GRAINS

11.9.1 Small Grains Not Underseeded To Legumes (fall- and spring-seeded barley, oat, triticale and wheat)

Refer to the specific crop sections below for use rates. When treating difficult to control weeds such as kochia, wild buckwheat, cow cockle, prostrate knotweed, Russian thistle, and prickly lettuce or when dense vegetative growth occurs, use the 4.12 – 5.5 fluid ounces of XtendiMax® With VaporGrip® Technology per acre.

Timings: Apply XtendiMax® With VaporGrip® Technology before, during, or after planting small grains. See specific small grain crop uses below for maximum crop stage. For best performance, apply XtendiMax® With VaporGrip® Technology when weeds are in the 2 - 3 leaf stage and rosettes are less than 2 inches across. Applying XtendiMax® With VaporGrip® Technology to small grains during periods of rapid growth may result in crop leaning. This condition is temporary and will not reduce crop yields.

Restrictions for small grain areas that are grazed or cut for hay are indicated in **Table 3** in Pasture, Hay, Rangeland, and General Farmstead section of this label.

11.9.2 Small Grains: Barley (fall- and spring-seeded)

Early season applications:

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Apply 2.75 – 5.5 fluid ounces of XtendiMax® With VaporGrip® Technology to fall-seeded barley prior to the jointing stage. Apply 2.75 – 4.12 fluid ounces of XtendiMax® With VaporGrip® Technology before spring-seeded barley exceeds the 4-leaf stage.

Note: For spring barley varieties that are seeded during the winter months or later, follow the rates and timings given for spring-seeded barley.

Preharvest applications:

XtendiMax® With VaporGrip® Technology can be used to control weeds that may interfere with harvest of fall and spring-seeded barley. Apply 11 fluid ounces of XtendiMax® With VaporGrip® Technology per acre as a broadcast or spot treatment to annual broadleaf weeds when barley is in the hard dough stage and the green color is gone from the nodes (joints) of the stern. Best results will be obtained if application can be made when weeds are actively growing, but before weeds canopy.

Allow a minimum of 7 days between treatment and harvest. Do not use preharvest-treated barley for seed unless a germination test is performed on the seed with an acceptable result of 95% germination or better.

[Optional: Do not make preharvest applications in California.]

11.9.3 Small Grains: Oats (fall- and spring-seeded)

Early season applications:

Apply 2.75 – 5.5 fluid ounces of XtendiMax® With VaporGrip® Technology per acre to fall-seeded oat prior to the jointing stage. Apply 2.75 – 5.5 fluid ounces of XtendiMax® With VaporGrip® Technology before spring-seeded oat exceed the 5-leaf stage.

Do not tank mix XtendiMax® With VaporGrip® Technology with 2,4-D in oat.

Allow a minimum of 7 days between treatment and harvest.

11.9.4 Small Grains: Triticale (fall- and spring-seeded)

Early season applications:

Apply 2.75 – 5.5 fluid ounces of XtendiMax® With VaporGrip® Technology to triticale.

Early season applications to fall-seeded triticale must be made prior to the jointing stage.

Early season applications to spring-seeded triticale must be made before triticale reaches the 6-leaf stage.

11.9.5 Small Grains: Wheat (fall- and spring-seeded)

Early Season Applications:

Apply 2.75 – 5.5 fluid ounces of XtendiMax® With VaporGrip® Technology to wheat unless using one of the fall-seeded wheat specific programs below.

Early season applications to fall-seeded wheat must be made prior to the jointing stage.

Early season applications to spring-seeded wheat must be made before wheat exceeds the 6-leaf stage.

Early developing wheat varieties such as TAM 107, Madison, or Wakefield must receive application between early tillering and the jointing stage. Care should be taken in staging these varieties to be certain that the application occurs prior to the jointing stage.

Specific use programs for fall-seeded wheat only:

[Optional: XtendiMax® With VaporGrip® Technology may be used at 8.25 fluid ounces on fall-seeded wheat in Western Oregon as a spring application only.] In Colorado, Kansas, New Mexico, Oklahoma, and Texas, up to 11 fluid ounces of XtendiMax® With VaporGrip® Technology may be applied on fall-seeded wheat after it exceeds the 3-leaf stage for suppression of perennial weeds, such as field bindweed. Applications may be made in the fall following a frost but before a killing freeze.

Preharvest applications:

XtendiMax® With VaporGrip® Technology can be used to control weeds that may interfere with harvest of wheat. Apply 11 fluid ounces XtendiMax® With VaporGrip® Technology per acre as a broadcast or spot treatment to annual broadleaf weeds when wheat is in the hard dough stage and the green color is gone from the nodes (joints) of the stem. Best results will be obtained if application can be made when weeds are actively growing but before weeds canopy.

Allow a minimum of 7 days between treatment and harvest. Do not use preharvest-treated wheat for seed unless a germination test is performed on the seed with an acceptable result of 95% germination or better.

[Optional: Do not make preharvest applications in California.]

11.10 Sorghum

XtendiMax® With VaporGrip® Technology may be applied preplant, postemergence, or preharvest in sorghum to control many annual broadleaf weeds and to reduce competition from established perennial broadleaf weeds, as well as control their seedlings.

Do not graze or feed treated sorghum forage or silage prior to mature grain stage. If sorghum is grown for pasture or hay, refer to Pasture, Hay, Rangeland, and General Farmstead section of this label for specific grazing and feeding restrictions.

Do not apply XtendiMax® With VaporGrip® Technology to sorghum grown for seed production.

Preplant Application:

Up to 11 fluid ounces of XtendiMax® With VaporGrip® Technology may be applied per acre if applied at least 15 days before sorghum planting.

Postemergence Application:

Up to 11 fluid ounces of XtendiMax® With VaporGrip® Technology per acre may be applied after sorghum is in the spike stage (all sorghum emerged) but before sorghum is 15 inches tall. For best performance, apply XtendiMax® With VaporGrip® Technology when the sorghum crop is in the 3 - 5 leaf stage and weeds are small (less than 3 inches tall). Use drop pipes (drop nozzles) if sorghum is taller than 8 inches. Keep the spray off the sorghum leaves and out of the whorl to reduce the likelihood of crop injury and to improve spray coverage of weed foliage. Applying XtendiMax® With VaporGrip® Technology to sorghum during periods of rapid growth may result in temporary leaning of plants or rolling of leaves. These effects are usually outgrown within 10 - 14 days. Delay harvest until 30 days after a preharvest treatment.

Preharvest uses in Texas and Oklahoma only: Up to 11 fluid ounces of XtendiMax® With VaporGrip® Technology per acre may be applied for weed suppression any time after the sorghum has reached the soft dough stage. An agriculturally approved surfactant may be used to improve performance (read Section 8.0 for tank mixing instructions). Delay harvest until 30 days after a preharvest treatment.

Split Application:

XtendiMax® With VaporGrip® Technology may be applied in split applications: preplant followed by postemergence or preharvest; or postemergence followed by preharvest. Do not exceed 11 fluid ounces per acre, per application or a total of 22 ounces per acre, per season.

11.11 Soybean

For directions for use with crops with Xtend Technology see the "CROPS WITH XTEND TECHNOLOGY" section of this label.

Preplant Applications:

Apply 5.5 -22 fluid ounces of XtendiMax® With VaporGrip® Technology per acre to control emerged broadleaf weeds prior to planting soybeans. Do not exceed 22 fluid ounces of XtendiMax® With VaporGrip® Technology per acre in a spring application prior to planting soybeans.

Following application of XtendiMax® With VaporGrip® Technology and a minimum accumulation of 1 inch rainfall or overhead irrigation, allow a minimum of 14 days between treatment and planting for applications of 11 fluid ounces per acre or less, and allow a minimum of 28 days between treatment and planting for applications of 22 fluid ounces per acre. These plant back intervals must be observed prior to planting soybeans or crop injury may occur.

Do not make XtendiMax® With VaporGrip® Technology preplant applications to soybeans in geographic areas with average annual rainfall less than 25 inches.

Preharvest Applications:

XtendiMax® With VaporGrip® Technology can be used to control many annual and perennial broadleaf weeds and control or suppress many biennial and perennial broadleaf weeds in soybean prior to harvest (refer to **Section 10**). Apply 11 - 44 fluid ounces of XtendiMax® With VaporGrip® Technology per acre as a broadcast or spot treatment to emerged and actively growing weeds after soybean pods have reached mature brown color and at least 75% leaf drop has occurred.

Do not harvest soybeans until 7 days after application.

Treatments may not kill weeds that develop from seed or underground plant parts, such as rhizomes or bulblets, after the effective period for XtendiMax® With VaporGrip® Technology. For seedling control, a follow-up program or other cultural practice could be instituted.

Do not use preharvest-treated soybean for seed unless a germination test is performed on the seed with an acceptable result of 95% germination or better.

Do not feed soybean fodder or hay following a preharvest application of XtendiMax® With VaporGrip® Technology.

[Optional: Do not make preharvest applications in California.]

11.12 Sugarcane

Apply XtendiMax® With VaporGrip® Technology for control of annual, biennial, or perennial broadleaf weeds listed in Section 11. Apply 11 - 33 fluid ounces of XtendiMax® With VaporGrip® Technology per acre for control of annual weeds, 22 - 44 fluid ounces for control of biennial weeds, and 44 fluid ounces for control or suppression of perennial weeds.

Use the higher level of listed rate ranges when treating dense vegetative growth.

A single retreatment may be made as needed, however, do not exceed a total of 88 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre during a growing season.

Timing: XtendiMax® With VaporGrip® Technology may be applied to sugarcane any time after weeds have emerged, but before the close-in stage of sugarcane. Applications of 44 fluid ounces of XtendiMax®

With VaporGrip® Technology per acre made over the top of actively growing sugarcane may result in crop injury.

When possible, direct the spray beneath the sugarcane canopy to minimize the likelihood of crop injury. Using directed sprays will also help maximize the spray coverage of weed foliage.

Allow a minimum of 87 days between treatment and harvest.

11.13 Farmstead Turf (noncropland) and Sod Farms

Do not use on residential sites.

For use in general farmstead (noncropland) and sod farms, apply 4.12 – 44 fluid ounces of XtendiMax® With VaporGrip® Technology per acre to control or suppress growth of many annual, biennial, and some perennial broadleaf weeds commonly found in turf. XtendiMax® With VaporGrip® Technology will also suppress many other listed perennial broadleaf weeds and woody brush and vine species. Refer to Table 1 for rate recommendations based on targeted weed or brush species and growth stage.

Repeat treatments may be made as needed; however, do not exceed 44 fluid ounces of XtendiMax® With VaporGrip® Technology per acre, per growing season.

Apply 30 - 200 gallons of diluted spray per treated acre (3 - 17 quarts of water per 1,000 square feet), depending on density or height of weeds treated and on the type of equipment used.

To avoid injury to newly seeded grasses, delay application of XtendiMax® With VaporGrip® Technology until after the second mowing. Furthermore, applying more than 16 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre may cause noticeable stunting or discoloration of sensitive grass species such as bentgrass, carpetgrass, buffalograss, and St. Augustinegrass.

In areas where roots of sensitive plants extend, do not apply more than 5.5 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre on coarse-textured (sandy-type) soils, or in excess of 8 fluid ounces per treated acre on fine-textured soils. Do not make repeat applications in these areas for 30 days and until previous applications of XtendiMax® With VaporGrip® Technology have been activated in the soil by rain or irrigation.

12.0 CROPS WITH XTEND® TECHNOLOGY

COTTON WITH XTENDFLEX® TECHNOLOGY (INCLUDING BOLLGARD II® XTENDFLEX® COTTON, BOLLGARD® 3 XTENDFLEX® COTTON, OR XTENDFLEX® COTTON), ROUNDUP READY 2 XTEND® SOYBEAN, AND XTENDFLEX® SOYBEAN CONTAIN A PATENTED GENE THAT PROVIDES TOLERANCE TO DICAMBA, THE ACTIVE INGREDIENT IN THIS PRODUCT. THIS PRODUCT WILL CAUSE SEVERE CROP INJURY OR DESTRUCTION AND YIELD LOSS IF APPLIED TO COTTON AND SOYBEAN THAT ARE NOT DICAMBA TOLERANT, INCLUDING COTTON AND SOYBEAN WITH A TRAIT ENGINEERED TO CONFER TOLERANCE TO AUXIN HERBICIDES OTHER THAN DICAMBA. FOLLOW THE REQUIREMENTS SET FORTH HEREIN TO PREVENT SEVERE CROP INJURY OR DESTRUCTION AND YIELD LOSS. CONTACT WITH FOLIAGE, GREEN STEMS, OR FRUIT OF CROPS, OR ANY DESIRABLE PLANTS THAT DO NOT CONTAIN A DICAMBA TOLERANCE GENE OR ARE NOT NATURALLY TOLERANT TO DICAMBA, COULD RESULT IN SEVERE PLANT INJURY OR DESTRUCTION.

Information on cotton with XtendFlex® Technology, Roundup Ready 2 Xtend® Soybean, and XtendFlex® Soybean can be obtained from your seed supplier or Monsanto representative. Cotton with XtendFlex® Technology, Roundup Ready 2 Xtend® Soybean, and XtendFlex® Soybean must be purchased from an authorized licensed seed supplier.

Note: Cotton with XtendFlex® Technology, Roundup Ready 2 Xtend® Soybean, and XtendFlex® Soybean and methods of controlling weeds and applying dicamba in a Cotton with XtendFlex® Technology, Roundup Ready 2 Xtend® Soybean, and XtendFlex® Soybean crop are protected under U.S. patent law. No license to use Cotton with XtendFlex® Technology, Roundup Ready 2 Xtend® Soybean, and XtendFlex® Soybean is granted or implied with the purchase of this herbicide product. Cotton with XtendFlex® Technology, Roundup Ready 2 Xtend® Soybean, and XtendFlex® Soybean are owned by Monsanto and a license must be obtained from Monsanto before using it. Contact your Authorized Monsanto Retailer for information on obtaining a license to Cotton with XtendFlex® Technology, Roundup Ready 2 Xtend® Soybean, and XtendFlex® Soybean.

12.1 Cotton with XtendFlex® Technology

DO NOT combine these instructions with other instructions in the "COTTON" Section of **this** label for use over crops that do not contain the dicamba tolerance trait.

TYPES OF APPLICATIONS: Burndown/Early Preplant; Preplant; At-Planting; Preemergence; Postemergence (In-crop)

USE INSTRUCTIONS
Apply this product in a minimum of 15 gallons of spray solution per acre as a broadcast application. For best performance, control weeds early when they are less than 4 inches. Timely application will improve control and reduce weed competition. Refer to the following table for maximum application rates of this product with cotton with XtendFlex® Technology.

Maximum Application Rates	
Combined total per year for all applications	88 fluid ounces per acre (2.0 lb. a.e. dicamba per acre)
Total of all Burndown/Early Preplant, Preplant, At-Planting, and Preemergence applications	44 fluid ounces per acre (1.0 lb. a.e. dicamba per acre)
Total of all in-crop applications up to mid-bloom stage or no more than 60 days after planting, whichever occurs first	44 fluid ounces per acre (1.0 lb. a.e. dicamba per acre)
Maximum In-crop, single application	22 fluid ounces per acre (0.5 lb. a.e. dicamba per acre)

a.e. – acid equivalent

Refer to Table 1 for application rates for weed type and growth stage controlled by this product. Maximum in-crop application rate should be used when treating tough to control weeds, dense vegetative growth or weeds with a well-established root system.

Burndown/Early Preplant, Preplant, At-Planting, Preemergence
USE INSTRUCTIONS: This product may be used to control broadleaf weeds and may be applied before, during or immediately after planting cotton with XtendFlex® Technology. Refer to the "WEEDS CONTROLLED" section of this label for XtendiMax® With VaporGrip® Technology for specific weeds controlled.

RESTRICTIONS:

- The maximum combined quantity of this product that may be applied for all burndown/early preplant, preplant, at-planting, and preemergence applications is 44 fluid ounces (1.0 lb a.e. dicamba) per acre per season.

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- The maximum application rate for a single, burndown/early preplant, preplant, at-planting, or preemergence application must not exceed 44 fluid ounces (1.0 lb a.e. dicamba) per acre.
- Do not apply less than 22 fluid ounces (0.5 lb a.e. dicamba) per acre.

Postemergence (In-crop)
USE INSTRUCTIONS: This product may be used to control broadleaf weeds in cotton with XtendFlex® Technology. In-crop applications of this product can be made up to mid-bloom stage or no more than 60 days after planting, whichever occurs first.

The maximum and minimum rate for any single, in-crop application is 22 fluid ounces (0.5 lb a.e. dicamba) per acre. Using the appropriate application rate may reduce the selection for resistant weeds. For best performance, control weeds early when they are less than 4 inches. To the extent permitted by applicable law, Monsanto Company does not warrant product performance of applications to labeled weeds greater than 4 inches in height. Sequential applications of this product may be necessary to control new flushes of weeds or on tough-to-control weeds. Allow at least 7 days between applications.

Postemergence applications of this product mixed with adjuvants may cause a leaf response to cotton with XtendFlex® Technology. The symptoms usually appear as necrotic spots on fully expanded leaves. EC-based products that are tank mixed with products containing dicamba may increase the severity of the leaf damage.

RESTRICTIONS:
- The combined total applied in-crop up to mid-bloom stage or no more than 60 days after planting, whichever occurs first, must not exceed 44 fluid ounces (1.0 lb a.e. dicamba) per acre and a maximum of two in-crop applications.
- The maximum single, in-crop application rate must not exceed 22 fluid ounces (0.5 lb a.e. dicamba).
- The combined total per year for all applications must not exceed 88 fluid ounces (2.0 lb a.e. dicamba) per acre. For example, if a preplant application of 44 fluid ounces (1.0 lb a.e. dicamba) per acre was made, then the combined total in-crop applications must not exceed 44 fluid ounces (1.0 lb a.e. dicamba) per acre.

12.2 Roundup Ready 2 Xtend® Soybean and XtendFlex® Soybean

DO NOT combine these instructions with other instructions in the "SOYBEAN" Section of **this** label for use over crops that do not contain the dicamba tolerance trait.

TYPES OF APPLICATIONS: Burndown/Early Preplant; Preplant; At-Planting; Preemergence; Postemergence (In-crop); Lay-By

USE INSTRUCTIONS
Apply this product in a minimum of 15 gallons of spray solution per acre as a broadcast application. For best performance, control weeds early when they are less than 4 inches. Timely application will improve control and reduce weed competition. Refer to the following table for maximum application rates of this product with Roundup Ready 2 Xtend® Soybean and XtendFlex® Soybean.

Maximum Application Rates	
Combined total per year for all applications	88 fluid ounces per acre (2.0 lb. a.e. dicamba per acre)
Total of all Burndown/Early Preplant, Preplant, At-Planting, and Preemergence applications	44 fluid ounces per acre (1.0 lb. a.e. dicamba per acre)

Total of all In-crop applications from emergence prior to beginning bloom (R1 stage soybeans) or no more than 45 days after planting, whichever occurs first	44 fluid ounces per acre (1.0 lb. a.e. dicamba per acre)
Maximum In-crop, single application	22 fluid ounces per acre (0.5 lb. a.e. dicamba per acre)

a.e. – acid equivalent

Refer to Table 1 for application rates for weed type and growth stage controlled by this product. Maximum in-crop application rate should be used when treating tough to control weeds, dense vegetative growth or weeds with a well-established root system.

Burndown/Early Preplant, Preplant, At-Planting, Preemergence
USE INSTRUCTIONS: This product may be used to control broadleaf weeds and may be applied before, during or immediately after planting Roundup Ready 2 Xtend® Soybean and XtendFlex® Soybean. Refer to the "WEEDS CONTROLLED" section of this label for specific weeds controlled.

RESTRICTIONS:

- The maximum combined quantity of this product that may be applied for all burndown/early preplant, preplant, at-planting, and preemergence applications is 44 fluid ounces (1.0 lb a.e. dicamba) per acre per season.
- The maximum application rate for a single, burndown/early preplant, preplant, at-planting, or preemergence application must not exceed 44 fluid ounces (1.0 lb a.e. dicamba) per acre.
- Do not apply less than 22 fluid ounces (0.5 lb a.e. dicamba) per acre.

Postemergence (In-crop)
USE INSTRUCTIONS: This product may be used to control broadleaf weeds in Roundup Ready 2 Xtend® Soybean and XtendFlex® Soybean. In-crop applications of this product can be made prior to beginning bloom (R1 stage soybeans) or no more than 45 days after planting, whichever occurs first.

The maximum and minimum rate for any single, in-crop application is 22 fluid ounces (0.5 lb a.e. dicamba) per acre. Using the appropriate application rate may reduce the selection for resistant weeds. For best performance, control weeds early when they are less than 4 inches. To the extent permitted by applicable law, Monsanto Company does not warrant product performance of applications to labeled weeds greater than 4 inches in height.

A second application of this product may be necessary to control new flushes of weeds and can be made prior to beginning bloom (R1 stage soybeans) or no more than 45 days after planting, whichever occurs first. Allow at least 7 days between applications. For best results, apply XtendiMax® With VaporGrip® Technology after some weed re-growth has occurred.

Application of this product postemergence and under stressful environments may cause temporary loss of turgor, a response commonly described as leaf droop in Roundup Ready 2 Xtend® Soybean and XtendFlex® Soybean. Typically, affected plants recover in 1-3 days depending on the level of droop and environmental conditions.

RESTRICTIONS:

- The combined total application rate in-crop prior to beginning bloom (R1 stage soybeans) or no more than 45 days after planting, whichever occurs first, must not exceed 44 fluid ounces (1.0 lb. a.e. dicamba) per acre a maximum of two in-crop applications.
- Do not make in-crop applications of this product during and after beginning bloom (R1 stage soybeans) or more than 45 days after planting.
- The maximum single, in-crop application rate must not exceed 22 fluid ounces (0.5 lb. a.e. dicamba) per acre. The combined total per year for all applications must not exceed 88 fluid ounces (2.0 lb. a.e. dicamba) per acre.

13.0 WEEDS CONTROLLED

General Weed List, Including ALS-, Glyphosate, and Triazine-Resistant Biotypes

Annuals

Alkanet
Amaranth, Palmer, Powell, Spiny
Aster, Slender
Bedstraw, Catchweed
Beggarweed, Florida
Broomweed, Common
Buckwheat, Tartary, Wild
Buffalobur
Burclover, California
Burcucumber
Buttercup, Corn, Creeping, Roughseed, Western Field
Carpetweed
Catchfly, Nightflowering
Chamomile, Corn
Chevil, Bur
Chickweed, Common
Clovers
Cockle, Corn, Cow, White
Cocklebur, Common
Copperleaf, Hophornbeam
Cornflower (Bachelor Button)
Croton, Tropic, Woolly
Daisy, English
Dragonhead, American
Eveningprimrose, Cutleaf
Falseflax, Smallseed
Fleabane, Annual
Flixweed
Fumitory
Goosefoot, Nettleleaf
Hempnettle
Henbit
Jacobs-Ladder
Jimsonweed
Knawel (German Moss)
Knotweed, Prostrate
Kochia
Ladysthumb
Lambsquarters Common
Lettuce, Miners, Prickly
Mallow, Common, Venice
Marestail (Horseweed)
Mayweed
Morningglory, Ivyleaf, Tall
Mustard, Black, Blue, Tansy, Treacle, Tumble, Wild, Yellowtops
Nightshade, Black, Cutleaf
Pennycress, Field (Fanweed, Frenchweed, Stinkweed)
Pepperweed, Virginia (Peppergrass)
Pigweed, Prostrate, Redroot (Carelessweed), Rough, Smooth, Tumble
Pineappleweed
Poorjoe
Poppy, Red-horned
Puncturevine
Purslane, Common
Pusley, Florida
Radish, Wild
Ragweed, Common, Giant (Buffaloweed), Lance-Leaf
Rocket, London, Yellow
Rubberweed, Bitter (Bitterweed)
Salsify
Senna, Coffee
Sesbania, Hemp
Shepherdpurse
Sicklepod
Sida, Prickly (Teaweed)
Smartweed, Green, Pennsylvania
Sneezeweed, Bitter
Sowthistle, Annual, Spiny
Spanish Needles
Spikeweed, Common
Spurge, Prostrate, Leafy
Spurry, Corn
Starbur, Bristly
Starwort, Little
Sumpweed, Rough
Sunflower, Common (Wild), Volunteer
Thistle, Russian
Velvetleaf
Waterhemp, Common, Tall
Waterprimrose, Winged
Wormwood

Biennials

Burdock, Common
Carrot, Wild (Queen Anne's Lace)
Cockle, White
Eveningprimrose, Common
Geranium, Carolina
Gromwell
Knapweed, Diffuse, Spotted
Mallow, Dwarf
Plantain, Bracted
Ragwort, Tansy
Starthistle, Yellow
Sweetclover
Teasel
Thistle, Bull, Milk, Musk, Plumeless

Perennials

Alfalfa[1]
Artichoke, Jerusalem
Aster, Spiny, Whiteheath
Bedstraw, Smooth
Bindweed, Field, Hedge
Blueweed, Texas
Bursage, Woollyleaf[1] (Bur Ragweed, Povertyweed)
Buttercup, Tall
Campion, Bladder
Chickweed, Field, Mouseear

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Chicory[1]
Clover[1], Hop
Dandelion[1], Common
Dock[1] Broadleaf (Bitterdock), Curly
Dogbane, Hemp
Dogfennel[1] (Cypressweed)
Fern, Bracken
Garlic, Wild
Goldenrod, Canada, Missouri
Goldenweed, Common
Hawkweed
Henbane, Black[1]
Horsenettle, Carolina
Ironweed
Knapweed, Black, Diffuse, Russian[1], Spotted
Milkweed, Climbing, Common, Honeyvine, Western Whorled
Nettle, Stinging
Nightshade, Silverleaf (White Horsenettle)
Onion, Wild
Plaintain, Broadleaf, Buckhorn
Pokeweed
Ragweed, Western
Redvine
Sericia Lespedeza
Smartweed, Swamp
Snakeweed, Broom
Sorrel[1], Red (Sheep Sorrel)
Sowthistle[1], Perennial
Spurge, Leafy
Sundrops
Thistle, Canada, Scotch
Toadflex, Dalmatian
Tropical Soda Apple
Trumpetcreeper (Buckvine)
Vetch
Waterhemlock, Spotted
Waterprimrose, Creeping
Woodsorrel[1], Creeping, Yellow
Wormwood, Absinth, Louisiana
Yankeeweed
Yarrow, Common[1]

[1] Noted perennials may be controlled using lower rates of **XtendiMax® With VaporGrip® Technology** than those recommended for other listed perennial weeds.

Woody Species

Alder
Ash
Aspen
Basswood
Beech
Birch
Blackberry[2]
Blackgum[2]
Cedar[2]
Cherry
Chinquapin
Cottonwood
Creosotebush[2]
Cucumbertree
Dewberry[2]
Dogwood[2]
Elm
Grape
Hawthorn (Thornapple)[2]
Hemlock
Hickory
Honeylocust
Honeysuckle
Hornbeam
Huckleberry
Huisache
Ivy, Poison
Kudzu
Locust, Black
Maple
Mesquite
Oak
Oak, Poison
Olive, Russian
Persimmon, Eastern
Pine
Plum, Sand (Wild Plum)[2]
Poplar
Rabbitbrush
Redcedar, Eastern[2]
Rose[2], McCartney, Multiflora
Sagebrush, Fringed[2]
Sassafras
Serviceberry
Spicebush
Spruce
Sumac
Sweetgum[2]
Sycamore
Tarbush
Willow
Witchhazel
Yaupon[2]
Yucca[2]

[2]Growth suppression only

14.0 LIMIT OF WARRANTY AND LIABILITY

Monsanto Company warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes set forth in the Complete Directions for Use label booklet ("Directions") when used in accordance with those Directions under the conditions described therein. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, NO OTHER EXPRESS WARRANTY OR IMPLIED WARRANTY OF FITNESS FOR PARTICULAR PURPOSE OR MERCHANTABILITY IS MADE. This warranty is also subject to the conditions and limitations stated herein. Specifically, and without limiting the foregoing, MONSANTO MAKES NO RECOMMENDATION OR WARRANTY HEREIN REGARDING THE USE OF ANY PRODUCTS THAT MAY APPEAR ON THE WEBSITE REFERENCED IN THE TANK-MIXING INSTRUCTIONS HEREIN, REGARDLESS OF WHETHER SUCH PRODUCT IS USED ALONE OR IN A TANK MIX WITH XTENDIMAX® WITH VAPORGRIP® TECHNOLOGY. BUYER AND ALL USERS ARE SOLELY RESPONSIBLE FOR ANY LACK OF PERFORMANCE, LOSS, OR DAMAGE IN

CONNECTION WITH THE USE OR HANDLING OF ANY SUCH PRODUCT ALONE OR IN A TANK MIX WITH XTENDIMAX® WITH VAPORGRIP® TECHNOLOGY.

Buyer and all users shall promptly notify this Company of any claims whether based in contract, negligence, strict liability, other tort or otherwise.

To the extent consistent with applicable law, buyer and all users are responsible for all loss or damage from use or handling which results from conditions beyond the control of this Company, including, but not limited to, incompatibility with products other than those set forth in the Directions, application to or contact with desirable vegetation, failure of this product to control weed biotypes which develop resistance to dicamba, unusual weather, weather conditions which are outside the range considered normal at the application site and for the time period when the product is applied, as well as weather conditions which are outside the application ranges set forth in the Directions, application in any manner not explicitly set forth in the Directions, moisture conditions outside the moisture range specified in the Directions, or the presence of products other than those set forth in the Directions in or on the soil, crop or treated vegetation.

This Company does not warrant any product reformulated or repackaged from this product except in accordance with this Company's stewardship requirements and with express written permission from this Company.

For in-crop (over-the-top) uses on crops with Xtend® Technology, crop safety and weed control performance are not warranted by Monsanto when this product is used in conjunction with "brown bag" or "bin run" seed saved from previous year's production and replanted.

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EPA Reg. No. 524-617

EPA Establishment No. [insert appropriate est. no.]

Lot number [insert appropriate lot number]

Net contents [insert net contents]

Packed for:
MONSANTO COMPANY
800 N. Lindbergh Blvd.
ST. LOUIS, MISSOURI, 63167 U.S.A.

© [DATE]

Message

From: MARVIN, THOMAS [AG/1920] [thomas.marvin@bayer.com]
Sent: 10/31/2018 8:07:47 PM
To: Baris, Reuben [Baris.Reuben@epa.gov]
Subject: RE: example bulletin

We accept this language for use in Bulletins Live. Changes intended to reflect difference between FIFRA and ESA mitigations.

In combination with the 110 foot in-field wind-directional spray drift buffer, a 57 foot omnidirectional infield buffer is required to protect federally listed threatened and endangered species. The following areas may be included in the buffer distance calculation when directly adjacent to the treated field edges:

- Roads, paved or gravel surfaces, mowed and/or managed areas adjacent to field such as rights of way.
- Agricultural fields that have been prepared for planting or planted agricultural fields

Tom Marvin
Director, Federal Regulatory Affairs
1300 I Street, NW
Washington, DC 20005
Cell: 202-676-7846
Desk: 202-383-2851

From: Baris, Reuben [mailto:Baris.Reuben@epa.gov]
Sent: Wednesday, October 31, 2018 12:47 PM
To: MARVIN, THOMAS [AG/1920] <thomas.marvin@bayer.com>
Subject: RE: example bulletin

Please propose this back to the Agency.

In combination with the 110 foot in-field wind-directional spray drift buffer, a 57 foot omnidirectional infield buffer is required to protect federally listed threatened and endangered species. Non-sensitive areas defined below may be included as part of the buffer.

Non-sensitive areas – (must be consistent across all three labels)

- The following areas may be included in the buffer distance calculation when directly adjacent to the treated field edges:
  - Roads, paved or gravel surfaces, mowed and/or managed areas adjacent to field such as rights of way.
  - Planted agricultural fields containing: corn, dicamba tolerant cotton, dicamba tolerant soybean, sorghum, proso millet, small grains and sugarcane. If the applicator intends to include such crops as dicamba tolerant cotton and/or dicamba tolerant soybeans in the buffer distance calculation, the applicator must confirm the crops are in fact dicamba tolerant.
  - Agricultural fields that have been prepared for planting

REUBEN BARIS | PRODUCT MANAGER, TEAM 25 | HERBICIDE BRANCH
U.S. ENVIRONMENTAL PROTECTION AGENCY, OFFICE OF PESTICIDE PROGRAMS | (703) 305-7356

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Message

From: MARVIN, THOMAS [AG/1920] [thomas.marvin@bayer.com]
Sent: 10/31/2018 7:58:22 PM
To: Baris, Reuben [Baris.Reuben@epa.gov]; tina.bhakta@bayer.com
CC: Goodis, Michael [Goodis.Michael@epa.gov]; Kenny, Daniel [Kenny.Dan@epa.gov]
Subject: RE: label comments
Attachments: MASTER LABEL 524-617_10312018.docx

Revised label attached.

Tom Marvin
Director, Federal Regulatory Affairs
1300 I Street, NW
Washington, DC 20005
Cell: 202-676-7846
Desk: 202-383-2851

From: Baris, Reuben [mailto:Baris.Reuben@epa.gov]
Sent: Wednesday, October 31, 2018 12:28 PM
To: MARVIN, THOMAS [AG/1920] <thomas.marvin@bayer.com>; tina.bhakta@bayer.com
Subject: label comments

Much closer. Let me know if you want to discuss the adjacent comment.

REUBEN BARIS | PRODUCT MANAGER, TEAM 25 | HERBICIDE BRANCH
U.S. ENVIRONMENTAL PROTECTION AGENCY, OFFICE OF PESTICIDE PROGRAMS | (703) 305-7356

This system contains confidential and copyrighted information. Access to the system is limited to users only and only for approved business purposes.
Anyone obtaining access to and using this system acknowledges that all information on this system including but not limited to electronic mail, word processing, directories and files, constitutes private property belonging to the Company.
Anyone using or viewing this system is further advised that the use of this system may be recorded and the information contained herein maybe monitored, retrieved and reviewed if, in the company's sole discretion, there is a business reason to do so.
If improper activity or use is suspected, all available information may be used by the Company for possible disciplinary action, prosecution, civil claim or any remedy or lawful purpose.

MASTER LABEL FOR EPA REG. NO. 524-617

RESTRICTED USE PESTICIDE

For retail sale to and use only by Certified Applicators

This labeling expires on 12/20/2020. Do not use or distribute this product after 12/20/2020.

Primary Brand Name:

M1768 Herbicide

Alternate Brand Name:

XtendiMax® With VaporGrip® Technology

DICAMBA	GROUP	4	HERBICIDE

ACTIVE INGREDIENT:

Diglycolamine salt of dicamba (3,6-dichloro-*o*-anisic acid)* 42.8%
OTHER INGREDIENTS: 57.2%

TOTAL: 100.0%
* contains 29.0%, 3,6-dichloro-*o*-anisic acid (2.9 pounds acid equivalent per U.S. gallon or 350 grams per liter).

RESTRICTED USE PESTICIDE

For retail sale to and use only by Certified Applicators

XtendiMax® With VaporGrip® Technology

Complete Directions for Use

This labeling expires on 12/20/2020. Do not use or distribute this product after 12/20/2020.

EPA Reg. Number: 524-617

For weed control in asparagus, conservation reserve programs, corn, cotton, fallow croplands, general farmstead (noncropland), sorghum, grass grown for seed, hay, proso millet, pasture, rangeland, small grains, sod farms and farmstead turf, soybean, sugarcane, cotton with XtendFlex Technology, Roundup Ready 2 Xtend Soybean, and XtendFlex Soybean.

DICAMBA	GROUP	4	HERBICIDE

This label supersedes any previously issued labeling for this product, including previously issued supplemental labeling.

XtendiMax® With VaporGrip® Technology is approved by U.S. EPA for all uses specified on this label in the following states, subject to county restriction as noted: Alabama, Arkansas, Arizona, Colorado, Delaware, Florida (excluding Palm Beach County), Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Michigan, Minnesota, Mississippi, Missouri, Nebraska, New Jersey, New Mexico, New York, North Carolina, North Dakota, Oklahoma, Ohio, Pennsylvania, South Carolina, South Dakota, Tennessee (excluding Wilson County), Texas, Virginia, West Virginia, Wisconsin.

Check the registration status of each product in each state before using.

READ THE ENTIRE LABEL FOR **XTENDIMAX® WITH VAPORGRIP® TECHNOLOGY**
BEFORE PROCEEDING WITH THE USE DIRECTIONS CONTAINED IN THIS LABEL

READ AND FOLLOW ALL APPLICABLE DIRECTIONS, RESTRICTIONS, AND PRECAUTIONS ON THE CONTAINER LABEL AND BOOKLET AND WWW.XTENDIMAXAPPLICATIONREQUIREMENTS.COM.

Read the "LIMIT OF WARRANTY AND LIABILITY" statement at the end of the label before buying or using. If terms are not acceptable, return at once unopened.

Net contents:

EPA Establishment No.:

CONTENTS

1.0 [TOC \o "1-4" \h \z \u]**INGREDIENTS**

ACTIVE INGREDIENT:

Diglycolamine salt of dicamba (3,6-dichloro-*o*-anisic acid)* 42.8%
OTHER INGREDIENTS: 57.2%

TOTAL: 100.0%
* contains 29.0%, 3,6-dichloro-*o*-anisic acid (2.9 pounds acid equivalent per U.S. gallon or 350 grams per liter).

DICAMBA	GROUP	4	HERBICIDE

2.0 IMPORTANT PHONE NUMBERS

1. FOR PRODUCT INFORMATION OR ASSISTANCE IN USING THIS PRODUCT, CALL TOLL-FREE, 1-800-332-3111.
2. IN CASE OF AN EMERGENCY INVOLVING THIS HERBICIDE PRODUCT, OR FOR MEDICAL ASSISTANCE, CALL COLLECT, DAY OR NIGHT, (314)-694-4000.

IN CASE OF SPILL:

Steps to be taken in case material is released or spilled:

Dike and contain the spill with inert material (sand, earth, etc.) and transfer liquid and solid diking material to separate containers for disposal. Remove contaminated clothing, and wash affected skin areas with soap and water. Wash clothing before re-use. Keep the spill out of all sewers and open bodies of water.

3.0 PRECAUTIONARY STATEMENTS

3.1 Hazards to Humans and Domestic Animals

Keep out of reach of children.

CAUTION!

Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

FIRST AID	
IF IN EYES	• Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
IF SWALLOWED:	• Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give anything by mouth to an unconscious person.
IF ON SKIN OR CLOTHING:	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 to 20 minutes.

	• Call a poison control center or doctor for treatment advice.

- Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
- You can call **(314) 694-4000**, collect day or night, for emergency medical treatment information.
- This product is identified as **XtendiMax® With VaporGrip® Technology, EPA Registration No. 524-617.**

PERSONAL PROTECTIVE EQUIPMENT (PPE)

All mixers, loaders, applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks

See "Engineering Controls Statement" for additional requirements.
Follow the manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

ENGINEERING CONTROLS STATEMENT

When handlers use closed systems, or enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

IMPORTANT: When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for "all mixers, loaders, applicators and other handlers" and have such PPE immediately available for use in an emergency, such as a spill or equipment breakdown.

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

3.2 Environmental Hazards

Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters or rinsate. Apply this product only as directed on the label.

This chemical is known to leach through soil into ground water under certain conditions as a result of agricultural use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.

Ground and Surface Water Protection

Point source contamination - To prevent point source contamination, do not mix or load this pesticide product within 50 feet of wells (including abandoned wells and drainage wells), sink holes, perennial or intermittent streams and rivers, and natural or impounded lakes and reservoirs. Do not apply pesticide

product within 50 feet of wells. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pad or properly diked mixing/loading areas as described below.

Mixing, loading, rinsing, or washing operations performed within 50 feet of a well are allowed only when conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be on or move across the pad. The pad must be self-contained to prevent surface water flow over or from the pad. The pad capacity must be maintained at 110% that of the largest pesticide container or application equipment used on the pad and have sufficient capacity to contain all product spills, equipment or container leaks, equipment wash waters, and rainwater that may fall on the pad. The containment capacity does not apply to vehicles delivering pesticide shipments to the mixing/loading site. States may have in effect additional requirements regarding wellhead setbacks and operational containment.

Care must be taken when using this product to prevent: a) back siphoning into wells, b) spills or c) improper disposal of excess pesticide, spray mixtures or rinsates. Check valves or anti-siphoning devices must be used on all mixing equipment.

Movement by surface runoff or through soil - Do not apply under conditions which favor runoff. Do not apply to impervious substrates such as paved or highly compacted surfaces in areas with high potential for ground water contamination. Ground water contamination may occur in areas where soils are permeable or coarse and ground water is near the surface. Do not apply to soils classified as sand with less than 3% organic matter and where ground water depth is shallow. To minimize the possibility of ground water contamination, carefully follow application rate recommendations as affected by soil type in the Crop Specific Information section of this label.

Movement by water erosion of treated soil - Do not apply or incorporate this product through any type of irrigation equipment nor by flood or furrow irrigation. Ensure treated areas have received at least one-half inch rainfall (or irrigation) before using tailwater for subsequent irrigation of other fields.

Endangered Species Concerns
Use of this product may pose a hazard to endangered or threatened species. When using this product, you must follow the measures contained in the Endangered Species Protection Bulletin for the area in which you are applying the product. To obtain Bulletins, no more than six months before using this product, consult https://www.epa.gov/endangered-species or call 1-844-447-3813. You must use the Bulletin valid for the month in which you will apply the product.

It is a Federal offense to use any pesticide in a manner that results in the death of an endangered species.

3.3 Physical or Chemical Hazards

Do not store or heat near oxidizing agents, hazardous chemical reaction may occur.

4.0 DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling. This product can only be used in accordance with the Directions for Use on this label. This labeling must be in the user's possession during application.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulations.

This is a restricted use pesticide.

4.1 Training

Prior to applying this product in the 2019 growing season and each growing season thereafter, all applicator(s) applying this product must complete dicamba or auxin-specific training. If training is available and required by the state where the applicator intends to apply this product, the applicator must complete that training. If the state where the application is intended does not require auxin or dicamba-specific training, then the applicator must complete dicamba or auxin-specific training provided by one of the following sources: a) a registrant of a dicamba product approved for in-crop use with dicamba-tolerant crops, or b) a state or state-authorized provider.

4.2 Record Keeping

Record keeping is required for applications of this product. **The certified applicator must keep the following records for a period of two years**; records must be generated as soon as practical but no later than 72 hours after application and a record must be kept for each application of Xtendimax with VaporGrip Technology. Records must be made available to State Pesticide Control Official(s), USDA, and EPA upon request. An example form summarizing record keeping requirements can be found on [HYPERLINK "http://www.xtendimaxapplicationrequirements.com"].

1. All Items required by 7 CFR Part 110 (RECORDKEEPING ON RESTRICTED USE PESTICIDES BY CERTIFIED APPLICATORS) including:
    a. The brand or product name
    b. The EPA registration number
    c. The total amount applied
    d. The month, day, and year of application
    e. The location of the application
    f. The crop, commodity, stored product, or site of application
    g. The size of treated area
    h. The name of the certified applicator
    i. The certification number of the certified applicator
2. Training: Date and provider of required training completed and proof of completion.
3. Receipts of Purchase: Receipts or copies for the purchase of this product.
4. Product Label: A copy of this product label, and any state special local needs label that supplements this label.
5. Crop Planting Date: Record of the date at which the crop was planted.
6. Buffer Requirement: Record of the buffer distance calculation and any areas included within the buffer distance calculations as allowed in Section 9.1.4.a.
7. Sensitive Crops Awareness: Record that a sensitive crop registry was consulted and survey adjacent fields documenting the crops/areas surrounding the field prior to application. At a minimum, records must include the name of the sensitive crop registry and the date it was consulted and documentation of adjacent crops/areas and the date the survey was conducted (read Section 9.1.4.b for additional information).
8. Start and Finish Times of Each Application: Record of the time at which the application started and the time when the application finished.
9. Application Timing: Record of the type of application (for example: pre-emergence, post-emergence) and number of days after planting if post-emergence.
10. Air Temperature: Record of the air temperature in degrees Fahrenheit at the start and completion of each application.
11. Wind Speed and Direction: Record of the wind speed and direction (the direction from which the wind is blowing) at boom height at the start and completion of each application of this product (Read Section 9.1.1 for information on wind speed).
12. Nozzle and Pressure: Record of the spray nozzle manufacturer/brand, type, orifice size, and operating pressure used during each application of this product (Read Section 9.1.1 for information on nozzles and pressures.)

13. Tank Mix Products: Record of the brand names and EPA registration numbers (if available) for all products (pesticides, adjuvants, and other products) that were tank mixed with this product for each application (Read Section 8.0 for more information on tank mixing.)
14. Spray System Cleanout: Record of compliance with the section of this label titled Section 9.5: Proper Spray System Equipment Cleanout. At a minimum, records must include the confirmation that the spray system was clean before using this product and that the post-application cleanout was completed in accordance with Section 9.5.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about Personal Protective Equipment (PPE), and restricted-entry intervals. The requirements in this box only apply to uses of this product that are covered by the WPS.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 24 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as, plants, soil, or water is:

- Coveralls worn over short-sleeved shirt and short pants
- Chemical-resistant footwear plus socks
- Waterproof gloves
- Chemical-resistant headgear for overhead exposure
- Protective eyewear

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Do not enter or allow people (or pets) to enter the treated area until sprays have dried. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Do not enter or allow other people or pets to enter until sprays have dried.

5.0 STORAGE AND DISPOSAL

Proper pesticide storage and disposal are essential to protect against exposure to people and the environment due to leaks and spills, excess product or waste, and vandalism. Do not allow this product to contaminate water, foodstuffs, feed or seed by storage and disposal. Open dumping is prohibited. This product may not be mixed, loaded, or used within 50 feet of all wells including abandoned wells, drainage wells, and sinkholes. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pad or properly diked mixing/loading areas as described above

5.1 Pesticide Storage

Groundwater contamination may be reduced by diking and flooring of permanent liquid bulk storage sites with an impermeable material. Spillage or leakage should be contained and absorbed with clay granules, sawdust, or equivalent material for disposal.
Store in original container in a well-ventilated and away from food, pet food, feed, seed, fertilizers, and veterinary supplies. Avoid cross-contamination with other pesticides. Keep container closed to prevent spills and contamination.

5.2 Pesticide Disposal

To avoid wastes, use all material in this container, including rinsate, by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide

disposal program. Such programs are often run by state or local governments or by industry. All disposal must be in accordance with applicable federal, state and local regulations and procedures.
[*Alternate PESTICIDE DISPOSAL statement for transport vehicles only:* To avoid wastes, empty as much product from this transport vehicle as possible for repackaging or use in accordance with label directions. If wastes cannot be avoided, offer remaining product or rinsate to a waste disposal facility or pesticide disposal program. All disposal must be in accordance with applicable federal, state and local regulations and procedures.]

5.3 Container Handling and Disposal

[*Optional label statement if applicable*: See container label for container handling and disposal instructions and refilling limitations.]

[*CONTAINER HANDLING AND DISPOSAL STATEMENTS AND REFILLING LIMITATIONS FOR CONTAINER LABELS*]

[*CONTAINER HANDLING AND DISPOSAL STATEMENT AND REFILLING LIMITATION FOR NONREFILLABLE RIGID CONTAINERS OF LESS THAN 1-GALLON CAPACITY*]

Nonrefillable container. Do not reuse or refill this container.

[*Alternate container statement:* Nonrefillable container. Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state.]

Triple rinse this container promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Then offer this container for recycling, if available. If recycling is not available, dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.

[*Alternate container disposal statement:* Once properly rinsed, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or Monsanto at 1-800-ROUNDUP (1-800-768-6387). If recycling is not available, dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.]

[*CONTAINER HANDLING AND DISPOSAL STATEMENT AND REFILLING LIMITATION FOR NONREFILLABLE RIGID PLASTIC 2.5-GALLON CONTAINERS AND OTHER NONREFILLABLE CONTAINERS OF GREATER THAN 1-GALLON BUT EQUAL TO OR LESS THAN 5-GALLON CAPACITY*]

Nonrefillable container. Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state.

[*Alternate container statement:* Nonrefillable container. Do not reuse or refill this container.]

Triple rinse or pressure rinse (or equivalent) this container promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Once properly rinsed, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. [*Optional container disposal statement:* To find the nearest site, contact your chemical dealer or Monsanto at 1-800-ROUNDUP (1-800-768-6387)]. If recycling is not available, dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.

[*Alternate container disposal statement:* Then offer this container for recycling, if available. If recycling is not available, dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.]

[*CONTAINER HANDLING AND DISPOSAL STATEMENT AND REFILLING LIMITATION FOR NONREFILLABLE RIGID PLASTIC 30-GALLON CONTAINERS AND OTHER NONREFILLABLE CONTAINERS OF GREATER THAN 5-GALLON CAPACITY*]

Nonrefillable container. Do not reuse or refill this container.

[*Alternate container statement:* Nonrefillable container. Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state.]

Triple rinse or pressure rinse (or equivalent) this container promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Once properly rinsed, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. [*Alternate container disposal statement:* To find the nearest site, contact your chemical dealer or Monsanto at 1-800-ROUNDUP (1-800-768-6387)]. If recycling is not available,

dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.

[*Alternate container disposal statement:* Then offer the container for recycling, if available. If recycling is not available, dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.]

[*Optional container label statement:* Return Properly Rinsed Container to Monsanto for Recycling Contact: 1-800-ROUNDUP (1-800-768-6387)]

[*CONTAINER HANDLING AND DISPOSAL STATEMENT AND REFILLING LIMITATION FOR ALL REFILLABLE CONTAINERS, EXCEPT TRANSPORT VEHICLES*]

Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose.

Cleaning this container before refilling is the responsibility of the refiller. Cleaning this container before final disposal is the responsibility of the person disposing of the container.

To clean this container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer this container for recycling, if available.

[*Optional container disposal statement:* To obtain information about recycling refillable containers, contact Monsanto Company at 1-800-ROUNDUP (1-800-768-6387)]

[*Optional container label statement:* Return Properly Rinsed Container to Monsanto for Recycling, Call 1-800-ROUNDUP (1-800-768-6387)]

[*CONTAINER HANDLING AND DISPOSAL STATEMENT FOR ALL TRANSPORT VEHICLES AS DEFINED IN 40 CFR 156.3]*

THIS LABEL FOR USE WITH TRANSPORT VEHICLES ONLY

Emptied container retains vapor and product residue. Observe all precautions stated on this label until the container is cleaned, reconditioned or destroyed. Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, and worn-out threads and closures. Clean thoroughly before reuse for transportation of a material of different composition or before retiring this transport vehicle from service.

[Alternative label statement: NET CONTENTS: See Bill of Lading]

[Alternative label statement: LOT: See Bill of Lading]

[Alternative label statement: For Net Contents and Lot Number, see Bill of Lading]

6.0 PRODUCT INFORMATION

XtendiMax® With VaporGrip® Technology is approved by U.S. EPA for all uses specified on this label in the following states, subject to county restriction as noted: Alabama, Arkansas, Arizona, Colorado, Delaware, Florida (excluding Palm Beach County), Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Michigan, Minnesota, Mississippi, Missouri, Nebraska, New Jersey, New Mexico, New York, North Carolina, North Dakota, Oklahoma, Ohio, Pennsylvania, South Carolina, South Dakota, Tennessee (excluding Wilson County), Texas, Virginia, West Virginia, Wisconsin.

Additional state restrictions and requirements may apply. The applicator must comply with any additional state requirements and restrictions.

This product is a water-soluble formulation intended for control and suppression of many annual, biennials, and perennial broadleaf weeds, as well as woody brush and vines listed in the WEEDS CONTROLLED section of this label. This product may be used for control of these weeds in asparagus, corn, cotton, conservation reserve programs, fallow cropland, grass grown for seed, hay, proso millet, pasture, rangeland, general farmstead (noncropland), small grains, sod farms and farmstead turf, sorghum, soybean, sugarcane, Cotton with XtendFlex Technology, Roundup Ready 2 Xtend Soybean, and XtendFlex Soybean.

XtendiMax® With VaporGrip® Technology is a contact, systemic herbicide, which can have moderate residual control on small seeded broadleaf weeds, including waterhemp, lambsquarters and Palmer pigweed, depending on rainfall and soil type.

XtendiMax® With VaporGrip® Technology is readily absorbed by plants through shoot and root uptake, translocates throughout the plant's system, and accumulates in areas of active growth. XtendiMax® With VaporGrip® Technology interferes with the plant's growth hormones (auxins) resulting in death of many broadleaf weeds.

Failure to properly clean the entire spray system can result in inadvertent contamination of the spray system. You must ensure that the spray system used to apply this product is clean before using this product.

Rainfast period: Rainfall or irrigation occurring within 4 hours after postemergence applications may reduce the effectiveness of this product.

Refer to the CROP-SPECIFIC INFORMATION and CROPS WITH XTEND TECHNOLOGY sections for application timing and other crop-specific details.

6.1 Restrictions

The applicator must read the entire label, including product labeling and follow all restrictions for XtendiMax® With VaporGrip® Technology. Restrictions included, but are not limited to:

- DO NOT APPLY THIS PRODUCT AERIALLY.
- DO NOT TANK MIX WITH PRODUCTS CONTAINING AMMONIUM SALTS SUCH AS AMMONIUM SULFATE (AMS) AND UREA AMMONIUM NITRATE. Small quantities of AMS can greatly increase the volatility potential of dicamba. Read the TANK MIXING INSTRUCTIONS of this label (Section 8.0) for instructions regarding other tank mix products.
- DO NOT APPLY TO CROPS UNDER STRESS DUE TO LACK OF MOISTURE, HAIL DAMAGE, FLOODING, HERBICIDE INJURY, MECHANICAL INJURY, INSECTS, OR WIDELY FLUCTUATING TEMPERATURES AS INJURY MAY RESULT.
- DO NOT APPLY THROUGH ANY TYPE OF IRRIGATION EQUIPMENT. DO NOT TREAT IRRIGATION DITCHES OR WATER USED FOR CROP IRRIGATION OR DOMESTIC PURPOSES.

- DO NOT MAKE APPLICATION OF THIS PRODUCT IF RAIN THAT MAY EXCEED SOIL FIELD CAPACITY AND RESULT IN SOIL RUNOFF IS EXPECTED IN THE NEXT 24 HOURS

Review the entire label including, specific crop use direction sections for additional restrictions.

7.0 WEED RESISTANCE MANAGEMENT

DICAMBA	GROUP	4	HERBICIDE

Dicamba mimics auxin (a plant hormone) resulting in a hormone imbalance in sensitive plants that interferes with normal cell division, cell enlargement, and protein synthesis. Dicamba active ingredient is a Group 4 herbicide based on the mode of action classification system of the Weed Science Society of America. Any weed population can contain plants naturally resistant to Group 4 herbicides. Weed species resistant to Group 4 herbicides can be effectively managed utilizing another herbicide from a different Group, or by using other cultural or mechanical practices.

7.1 Weed Management Practices

Certain agronomic practices can delay or reduce the likelihood that resistant weed populations will develop and can be utilized to manage weed resistance once it occurs.

Do not use less than the labeled rate of this product in a single application. Using the appropriate application rate can minimize the selection for resistant weeds.

Proactively implementing diversified weed control strategies to minimize selection for weed populations resistant to one or more herbicides is a best practice. A diversified weed management program may include the use of multiple herbicides with different sites of action and overlapping weed spectrum with or without tillage operations and/or other cultural practices. Research has demonstrated that using the labeled rate and directions for use is important to delay the selection for resistance.

The continued effectiveness of this product depends on the successful implementation of a weed resistance management program.

To aid in the prevention of developing weeds resistant to this product:

- Scout fields before application to ensure herbicides and rates will be appropriate for the weed species and weed sizes present.
- Start with a clean field, using either a burndown herbicide application or tillage.
- Control weeds early when they are relatively small (less than 4 inches).
- Apply full rates of XtendiMax® With VaporGrip® Technology for the most difficult to control weed in the field at the specified time (correct weed size) to minimize weed escapes.
- Avoid tank mixtures with other herbicides that reduce the efficacy of this product (through antagonism), or with ones that encourage application rates of this product below those specified on this label.
- Scout fields after application to detect weed escapes or shifts in weed species.
- Control weed escapes before they reproduce by seed or proliferate vegetatively.
- Report any incidence of non-performance of this product against a particular weed species to your Monsanto retailer or representative or call 1-844-RRXTEND (1-844-779-8363).
- If resistance is suspected, treat weed escapes with an herbicide having a site of action other than Group 4 and/or use non-chemical methods to remove escapes, as practical, with the goal of preventing further seed production. EPA defines suspected herbicide resistance as the situation where the following three indicators occur at a site or location:

- Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds;
- A spreading patch of non-controlled plants of a particular weed species; and
- Surviving plants mixed with controlled individuals of the same species.

Additionally, users should follow as many of the following herbicide resistance management practices as is practical:

- Use a broad spectrum soil-applied herbicide with other sites of action as a foundation in a weed control program.
- Utilize sequential applications of herbicides with alternative sites of action.
- Rotate the use of this product with non-Group 4 herbicides.
- Avoid making more than two applications of dicamba and any other Group 4 herbicides within a single growing season unless mixed with an herbicide with a different mechanism of action with an overlapping spectrum for the difficult to control weeds.
- Incorporate non-chemical weed control practices, such as mechanical cultivation, crop rotation, cover crops and weed-free crop seeds, as part of an integrated weed control program.
- Use good agronomic principles that enhance crop development and crop competitiveness.
- Thoroughly clean plant residues from equipment before leaving fields suspected to contain resistant weeds.
- Manage weeds in and around fields, during and after harvest to reduce weed seed production.

Contact the local agricultural extension service, Monsanto representative, agricultural retailer or crop consultant for further guidance on weed control practices as needed.

7.2 Management of Dicamba-Resistant Biotypes

Appropriate testing is critical in order to determine if a weed is resistant to dicamba. Contact your Monsanto representative to determine if resistance in any particular weed biotype has been confirmed in your area, or visit on the Internet www.weedresistancemanagement.com or [HYPERLINK "http://www.weedscience.org"].

Monsanto Company is not responsible for any losses that result from the failure of this product to control dicamba-resistant weed biotypes.

The following good agronomic practices can reduce the spread of confirmed dicamba-resistant biotypes:

- If a naturally occurring resistant biotype is present in your field, this product may be tank-mixed or applied sequentially with an appropriately labeled herbicide with a different mode of action to achieve control (read Section 8.0 for more information on tank mixing).
- Cultural and mechanical control practices (e.g., crop rotation or tillage) can also be used as appropriate.
- Scout treated fields after herbicide application and control weed escapes, including resistant biotypes, before they set seed.
- Thoroughly clean equipment, as practical, for all weed seeds before leaving fields known to contain resistant biotypes.

8.0 TANK MIXING INSTRUCTIONS

Auxin herbicides such as dicamba have the potential to volatilize in lower pH spray mixtures. Knowing the pH of your spray mixture and making the appropriate adjustments to avoid a low pH spray mixture (e.g., pH less than 5) can reduce the potential for volatilization to occur. Talk to your local agricultural consultant, extension agent, or Bayer representative for recommendations to prevent low pH spray mixtures.

XtendiMax® With VaporGrip® Technology may only be tank-mixed with products that have been tested and found not to adversely affect the offsite movement potential of XtendiMax® With VaporGrip® Technology. The applicator must check the website found at [HYPERLINK "http://www.xtendimaxapplicationrequirements.com"] no more than 7 days before applying XtendiMax® With VaporGrip® Technology.

DO NOT tank mix any product with XtendiMax® With VaporGrip® Technology unless:

1. The intended tank-mix product is identified on the list of tested products found at [HYPERLINK "http://www.xtendimaxapplicationrequirments.com"];
2. The intended products are not prohibited on either this label or the label of the tank mix product; and
3. All requirements and restrictions on [HYPERLINK "http://www.xtendimaxapplicationrequirments.com"] are followed.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, MONSANTO MAKES NO RECOMMENDATION OR WARRANTY HEREIN REGARDING THE USE OF ANY PRODUCT THAT MAY APPEAR ON THE WEBSITE REFERENCED ABOVE, REGARDLESS OF WHETHER SUCH PRODUCT IS USED ALONE OR IN A TANK MIX WITH XTENDIMAX® WITH VAPORGRIP® TECHNOLOGY. BUYER AND ALL USERS ARE SOLELY RESPONSIBLE FOR ANY LACK OF PERFORMANCE, LOSS, OR DAMAGE IN CONNECTION WITH THE USE OR HANDLING OF ANY SUCH PRODUCT ALONE OR IN A TANK MIX WITH XTENDIMAX® WITH VAPORGRIP® TECHNOLOGY. See the section titled "LIMIT OF WARRANTY AND LIABILITY" herein for more information.

8.1 Compatibility Test for Mix Components

Before mixing components, always perform a compatibility jar test.

- For 15 gallons per acre spray volume, use 2.5 cups (591.5 mL) of water. For other spray volumes, adjust rates accordingly. Only use water from the intended source at the source temperature.
- Add components in the sequence indicated in the Mixing Order section below using 2 teaspoons for each pound or 1 teaspoon for each pint of labeled use rate per acre.
- Cap the jar and invert 10 cycles between component additions.
- When the components have all been added to the jar, let the solution stand for 15 minutes.
- Evaluate the solution for uniformity and stability. The spray solution should not have free oil on the surface; fine particles that precipitate to the bottom; or thick (clabbered) texture. If the spray solution is not compatible, repeat the compatibility test with the addition of a suitable compatibility agent. If the solution is then compatible, use the compatibility agent as directed on its label. If the solution is still incompatible, then do not mix the ingredients in the same tank.

8.2 Mixing Order

Only use approved tank mix products as directed on [HYPERLINK "http://www.xtendimaxapplicationrequirements.com"]. Always read and follow label directions for all products in the tank mixture. It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. See section 8.0 for additional restrictions on tank mixing.

1. Ensure application and mixing equipment are clean and in proper working order

2. Water - Begin by agitating a thoroughly **clean sprayer** tank three-quarters full of clean water.
3. Agitation - Maintain constant agitation throughout mixing and application.
4. Drift Reducing Adjuvants (DRA)-(when applicable)
5. Inductor - If an inductor is used, rinse it thoroughly after each component has been added.
6. Products in PVA bags - Place any product contained in water-soluble PVA bags into the mixing tank. Wait until all water-soluble PVA bags have fully dissolved and the product is evenly mixed in the spray tank before continuing.
7. Water-dispersible products (dry flowables, wettable powders, suspension concentrates, or suspo-emulsions)
8. Water-soluble products (such as XtendiMax® With VaporGrip® Technology)
9. Emulsifiable concentrates (such as oil concentrate when applicable)
10. Water-soluble additives (when applicable)
11. Add remaining quantity of water.

Maintain constant agitation during application

8.3 Adjuvants, Drift Reducing Adjuvants, Surfactants, and Other Tank Mixed Products

See Section [REF _Ref494710757 \r \h] [REF _Ref494710768 \h * MERGEFORMAT] for tank mixing instructions for adjuvants, drift reducing adjuvants, surfactants, and other tank mixed products.

9.0 APPLICATION EQUIPMENT AND TECHNIQUES

DO NOT APPLY THIS PRODUCT USING AERIAL SPRAY EQUIPMENT.

XtendiMax® With VaporGrip® Technology can be applied to actively growing weeds as broadcast, band, or spot spray applications using water as a carrier. For best results, treat weeds early when they are relatively small (less than 4 inches). Timely application to small weeds early in the season will improve control and reduce weed competition. Refer to Table 1 for XtendiMax® With VaporGrip® Technology application rates for control or suppression by weed type and growth stage. For crop-specific application timing and other details, refer to the CROP-SPECIFIC INFORMATION section of this label.

APPLY THIS PRODUCT USING PROPERLY MAINTAINED AND CALIBRATED EQUIPMENT CAPABLE OF DELIVERING THE REQUIRED VOLUMES.

Using a hooded sprayer or other drift reduction technology in combination with approved nozzles may further reduce drift potential.

Cultivation: Do not cultivate within 7 days after applying this product.

Table 1. XtendiMax® With VaporGrip® Technology Application Rates for Control or Suppression by Weed Type and Growth Stage
Use rate limitations are given in sections 10 (RESTRICTIONS), 11 (CROP-SPECIFIC INFORMATION), and 12 (CROPS WITH XTEND TECHNOLOGY)

Weed Type and Stage	Rate Per Acre	Weed Type and Stage	Rate Per Acre
Annual[1]		**Perennial**	
Small, actively growing	11 – 22 fluid ounces	Top growth suppression	11 – 22 fluid ounces
Established weed growth	22 – 33 fluid ounces	Top growth control and root suppression	22 – 44 fluid ounces
		Noted perennials (footnote 1 in Section	44 fluid ounces

		13.0). Other perennials (without footnote 1 in Section 13.0)[3]	44 fluid ounces
Biennial Rosette diameter 1 – 3 inches Rosette diameter 3 inches or more Bolting	 11 – 22 fluid ounces 22 – 44 fluid ounces 44 fluid ounces	**Woody Brush & Vines** Top growth suppression Top growth control[2,3] Stems and stem suppression[3]	 22 – 44 fluid ounces 44 fluid ounces 44 fluid ounces

[1] Rates below 11 fluid ounces per acre may provide control or suppression but should typically be applied with other herbicides that are effective on the same species and biotype.
[2] Woody Species listed in section 13.0 may require tank mixes for adequate top growth control.
[3] DO NOT broadcast apply more than 44 ounces per acre for a single application and DO NOT exceed broadcast applications of more than 88 ounces per acre within the growing season when a sequential application is needed for control. Use the higher rate when treating dense vegetation or perennial weeds with established root growth. Perennials and Woody Species are defined as those listed in Section 13.0.

9.1 Spray Drift Management

Do not allow herbicide solution to mist, drip, drift or splash onto desirable vegetation because severe injury or destruction to desirable broadleaf plants could result.

The most effective way to reduce drift potential is to apply large droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if the application is made improperly, or under unfavorable environmental conditions (see the **"Temperature and Humidity"** and "**Temperature Inversions"** sections of this label).

9.1.1 Sprayer Setup

The following sprayer setup requirements for drift management must be followed:

- **Nozzle type.** The applicator must use an approved nozzle within a specified pressure range as found at [HYPERLINK "http://www.xtendimaxapplicationrequirements.com"] when applying XtendiMax® With VaporGrip® Technology. Do not use any other nozzle and pressure combination not specifically listed on this website.

- **Spray Volume.** The applicator must apply this product in a **minimum of 15 gallons of spray solution per acre**. See Section 8.0 for information on approved tank mix products.

- **Equipment Ground Speed.** Do not exceed a **ground speed of 15 miles per hour**. Select a ground speed that will deliver the desired spray volume while maintaining the desired spray pressure, but slower speeds generally result in better spray coverage and deposition on the target area. Provided the applicator can maintain the required nozzle pressure, it is recommended that tractor speed is reduced to 5 miles per hour at field edges.

- **Spray boom Height.** Do not exceed a **boom height of 24 inches** above target pest or crop canopy. Excessive boom height will increase the drift potential.

- **Wind Speed.** Do not apply when wind speeds are **less than 3 MPH or greater than 10 MPH**. Only apply when wind speed at boom height is between 3 and 10 mph.

9.1.2 Temperature and Humidity

When making applications in low relative humidity or temperatures above 91 degrees Fahrenheit, set up equipment to produce larger droplets to compensate for evaporation (for example: increase orifice size and/or increase spray volume as directed on www.xtendimaxapplicationrequirements.com). Larger droplets have a lower surface to volume ratio and can be impacted less by temperature and humidity. Droplet evaporation is most severe when conditions are both hot and dry.

9.1.3 Temperature Inversions

Do not apply this product during a temperature inversion as the off-target movement potential is high.
In general, temperature inversions are more likely during nighttime hours. Applications of this product may ONLY occur one hour after sunrise though two hours before sunset.

- During a temperature inversion, the atmosphere is very stable and vertical air mixing is restricted, which can cause small, suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light, variable winds common during inversions.
- Temperature inversions can be characterized by increasing temperatures with altitude and can be common on evenings and nights with limited cloud cover and light to no wind. Cooling of air at the earth's surface takes place and warmer air is trapped above it. Temperature inversions can begin to form as the sun sets and often continue into the morning.
- Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.
- The inversion will typically dissipate with increased winds (above 3 miles per hour) or at sunrise when the surface air begins to warm (generally 3°F from morning low).

9.1.4 Buffer Requirements and Protection of Sensitive Crops

Do not apply under circumstances where drift may occur to food, forage, or other plantings that might be damaged or the crops rendered unfit for sale, use, or consumption.

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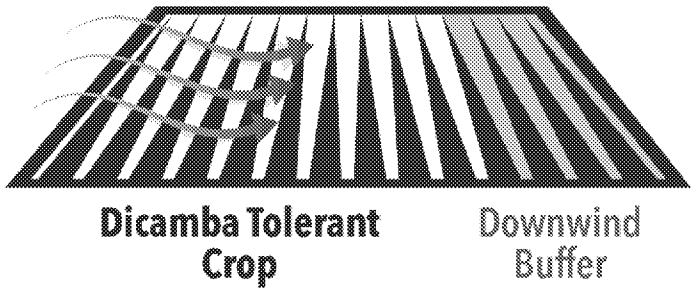
9.1.4.a. **Buffer Requirement**

The applicator **must always maintain** a 110 foot downwind buffer (when applying up to 22 fluid ounces of this product per acre) or a 220 foot downwind buffer (when applying greater than 22 up to 44 fluid ounces of this product per acre) between the last treated row and the nearest downwind field edge (in the direction the wind is blowing).

If you have questions regarding Buffer Requirement contact Bayer at 1-844-RRXTEND prior to application.



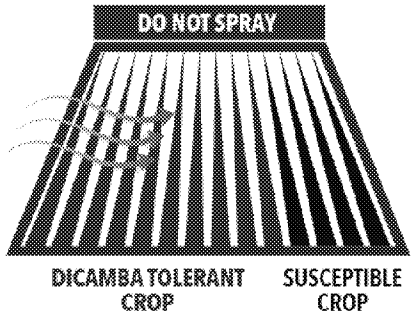
The following areas may be included in the buffer distance calculation when directly adjacent to the treated field edges:

- Roads, paved or gravel surfaces, mowed and/or managed areas adjacent to field such as rights of way.
- Planted agricultural fields containing: corn, dicamba tolerant cotton, dicamba tolerant soybean, sorghum, proso millet, small grains and sugarcane. If the applicator intends to include such crops as dicamba tolerant cotton and/or dicamba tolerant soybeans in the buffer distance calculation, the applicator must confirm the crops are in fact dicamba tolerant.
- Agricultural fields that have been prepared for planting
- Areas covered by the footprint of a building, silo, or other man made structure with walls and or roof.

9.1.4.b. **Sensitive Crops**

DO NOT APPLY this product when the wind is blowing toward adjacent non-dicamba tolerant sensitive crops; this includes **NON-DICAMBA TOLERANT SOYBEAN AND COTTON.**

It is important for the applicator to be aware that wind direction may vary during the application. If wind direction shifts such that the wind is blowing toward adjacent non-dicamba tolerant sensitive crops, the applicator must cease the application.



Before making an application, consult a sensitive crop registry (such as FieldWatch); and survey adjacent fields and confirm the crops/areas surrounding the field prior to application. At a minimum, records must include the name of the sensitive crop registry and the date it was consulted and documentation of adjacent crops/areas and the date the survey was conducted.

Sensitive crops include, but are not limited to non-dicamba tolerant soybeans and cotton, tomatoes and other fruiting vegetables (EPA crop group 8), fruit trees, cucurbits (EPA crop group 9), grapes, beans, flowers, ornamentals, peas, potatoes, sunflower, tobacco, other broadleaf plants, and including plants in a greenhouse. Severe injury or destruction could occur if any contact between this product and these plants occurs.

If you have questions regarding sensitive crop registries contact Bayer at 1-844-RRXTEND prior to application.

9.1.5 Application Awareness

AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR.

The interaction of equipment and weather related factors must be monitored to maximize performance and on-target spray deposition. The applicator is responsible for considering all of these factors when making a spray decision. The applicator is responsible for compliance with state and local pesticide regulations, including any state or local pesticide drift regulations.

9.2 Ground Application (Banding)

When applying XtendiMax® With VaporGrip® Technology by banding, determine the amount of herbicide and water volume needed using the following formula:

$$\frac{\text{Bandwidth in inches}}{\text{Row width in inches}} \times \text{Broadcast rate per acre} = \text{Banding herbicide rate per acre}$$

$$\frac{\text{Bandwidth in inches}}{\text{Row width in inches}} \times \text{Broadcast volume per acre} = \text{Banding water volume per acre}$$

9.3 Ground Application (Broadcast)

Water Volume: Use a **minimum of 15 gallons** of spray solution per broadcast acre for optimal performance. Use 20 gallons per acre when treating dense or tall vegetation.

Application Equipment: Select nozzles (refer to section 9.1.1 Nozzle type of this product label) designed to produce minimal amounts of fine spray particles. Spray with nozzles as close to the weeds as practical for good weed coverage.

Using a hooded sprayer or other drift reduction technology in combination with approved nozzles may further reduce drift potential.

9.4 Ground Application (Wipers)

XtendiMax® With VaporGrip® Technology may be applied through wiper application equipment to control or suppress actively growing broadleaf weeds, brush and vines. Use a solution containing 1 part XtendiMax® With VaporGrip® Technology to 1 part water. Do not apply greater than 1 lb dicamba acid equivalent (1 quart of this product) per acre per application. Do not contact desirable vegetation with herbicide solution. Wiper application may be made to crops (including pastures) and non-cropland areas described in this label except for non-dicamba-tolerant cotton, sorghum, and non-dicamba-tolerant soybean.

9.5 Proper Spray System Equipment Cleanout

You must ensure that the spray system used to apply this product is clean before using this product.

Failure to properly clean the entire spray system can result in inadvertent contamination of the spray system. Small quantities of dicamba may cause injury to non-dicamba tolerant soybeans and other sensitive crops (see Section 9.1.4 of this label for more information).

Inadvertent contamination can also occur in equipment used for bulk product handling and mixing prior to use in the spray system. Care should be taken to reduce contamination not only in the spray system but in any equipment used to transfer or deliver product. For example, bulk handling and mixing equipment containing this product should be segregated when possible to reduce potential for cross-contamination. Consider using block and check valves to avoid backflow during transfer. Piping should be reviewed to ensure there not potential for product build-up. Dedicated nurse trucks and tender equipment should be used when possible.

Clean equipment immediately after using this product, using a triple rinse procedure as follows:

1. After spraying, drain the sprayer (including boom and lines) immediately. Do not allow the spray solution to remain in the spray boom lines overnight prior to flushing.
2. Flush tank, hoses, boom and nozzles with clean water. If equipped, open boom ends and flush.
3. Inspect and clean all strainers, screens and filters.
4. Prepare a cleaning solution with a commercial detergent or sprayer cleaner or ammonia according to the manufacturer's directions.
5. Take care to wash all parts of the tank, including the inside top surface. Start agitation in the sprayer and thoroughly recirculate the cleaning solution for at least 15 minutes. All visible deposits must be removed from the spraying system.
6. Flush hoses, spray lines and nozzles for at least 1 minute with the cleaning solution.
7. Remove nozzles, screens and strainers and clean separately in the cleaning solution after completing the above procedures.
8. Drain pump, filter and lines.

9. Rinse the complete spraying system with clean water.
10. Clean and wash off the outside of the entire sprayer and boom.
11. All rinse water must be disposed of in compliance with local, state, and federal guidelines.

10.0 ADDITIONAL RESTRICTIONS

Maximum Application Rates: The maximum application or use rates stated throughout this label are given in units of volume (fluid ounces or quarts) of this product per acre. However, the maximum allowed application rates apply to this product combined with the use of any and all other herbicides containing the active ingredients dicamba, whether applied separately or as a tank mixture, on a basis of total pounds of dicamba (acid equivalents) per acre. If more than one dicamba-containing product is applied to the same site within the same year, you must ensure that the total use of dicamba (pounds acid equivalents) does not exceed 2 pounds/A per year from all applications. See the INGREDIENTS section of this label for necessary product information.

Maximum seasonal use rate: Refer to Table 2. Crop-Specific Restrictions for crop-specific maximum seasonal use rates. Do not exceed 88 fluid ounces of XtendiMax® With VaporGrip® Technology (2 pounds acid equivalent) per acre, per year.

Preharvest Interval (PHI): Refer to the CROP-SPECIFIC INFORMATION section for preharvest intervals.

Restricted Entry Interval (REI): 24 hours

Crop Rotational Restrictions

No rotational cropping restrictions apply when rotating to Roundup Ready 2 Xtend® Soybeans, XtendFlex® Soybeans, or cotton seed with XtendFlex® Technology (including Bollgard® 3 XtendFlex® Cotton, Bollgard II® XtendFlex® Cotton, or XtendFlex® Cotton). For other crops the interval between application and planting rotational crop is given below. When counting days from the application of this product, do not count days when the ground is frozen. Planting at intervals less than specified below may result in crop injury. Moisture is essential for the degradation of this herbicide in soil. If dry weather prevails, use cultivation to allow herbicide contact with moist soil.

Planting/replanting restrictions at application rates of 33 fluid ounces of this product per acre per season or less: Follow the planting restrictions in the directions for use for Preplant application in the Crop Specific Information section of this label. For corn, cotton (except cotton seed with XtendFlex® Technology), sorghum, and soybean (except Roundup Ready 2 Xtend® Soybean and XtendFlex® Soybean), follow the planting restrictions in the directions for use for preplant application in **Section 11. Crop-Specific Information** of this label. Do not plant barley, oat, wheat, and other grass seedings for 15 days for every 11 fluid ounces of this product applied per acre east of the Mississippi River and 22 days for every 11 fluid ounces per acre applied west of the Mississippi River. No planting restrictions apply beyond 120 days after application of this product.

Planting/replanting restrictions at application rates of more than 33 fluid ounces and up to 88 fluid ounces of this product per acre per season: Wait a minimum of 120 days after application of this product before planting corn, sorghum and cotton (except cotton seed with XtendFlex® Technology) east of the Rocky Mountains and before planting all other crops (except Roundup Ready 2 Xtend® Soybean and XtendFlex® Soybean) grown in areas receiving 30 inches or more rainfall annually. Wait a minimum of 180 days before planting crops in areas with less than 30 inches of annual rainfall. Wait a minimum of 30 days for every 22 fluid ounces of this product applied per acre before planting barley, oat, wheat, and other grass seedings east of the Mississippi River and 45 days for every 22 fluid ounces of this product applied per acre west of the Mississippi River.

Table 2. Crop-Specific Restrictions[1]

Crop	Maximum Rate Per Acre Per Application (fl oz)	Maximum Rate Per Acre Per Season (fl oz)	Livestock Grazing or Feeding
Asparagus	22	22	Yes
Barley; Fall Spring	11 11	16.5 15	Yes
Conservation Reserve Program (CRP)	44	88	Yes
Corn	22	33	Yes[2]
Cotton	11	11	Yes
Cotton with XtendFlex Technology	44	88	Yes
Fallow Ground	44	88	Yes
Grass grown for seed	44	88	Yes
Oats	5.5	5.5	Yes
Pastureland	44	44	Yes
Proso Millet	5.5	5.5	Yes
Small grains grown for grass, forage, fodder, hay and/or pasture	22	22	Yes
Sorghum	11	22	Yes

Soybean	44	44	Yes
Roundup Ready 2 Xtend Soybean and XtendFlex Soybean	44	88	Yes
Sugarcane	44	88	Yes
Triticale	5.5	5.5	Yes
Sod farms and farmstead turf	44	44	Yes
Wheat	11	22	Yes
[1]Refer to section **11. CROP-SPECIFIC INFORMATION** and section **12. CROPS WITH XTEND TECHNOLOGY** for more details. [2]Once the crop reaches the ensilage (milk) stage or later in maturity			

11.0 CROP-SPECIFIC INFORMATION

Read Sections: 8.0 for Tank Mixing Instructions and 9.1.4 for Buffer Requirements and Sensitive Crops for information on tank mixing, buffer requirements, and sensitive crops.

11.1 Asparagus

Apply XtendiMax® With VaporGrip® Technology to emerged and actively growing weeds in 40 - 60 gallons of diluted spray per treated acre immediately after cutting the field, but at least 24 hours before the next cutting. Multiple applications may be made per growing season.

If spray contacts emerged spears, crooking (twisting) of some spears may result. If such crooking occurs, discard affected spears.

Rates: Apply 11-22 fluid ounces of XtendiMax® With VaporGrip® Technology to control annual sowthistle, black mustard, Canada and Russian thistle, and redroot pigweed (carelessweed).

Apply 22 fluid ounces of XtendiMax® With VaporGrip® Technology to control common chickweed, field bindweed, nettleleaf goosefoot, and wild radish. Up to 2 applications may be made per growing season. Do not exceed a total of 22 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre, per crop year.

Do not harvest prior to 24 hours after treatment.

[Optional: Do not use in the Coachella Valley of California]

11.2 Between Crop Applications

Preplant Directions (Postharvest, Fallow, Crop Stubble, Set-Aside) for Broadleaf Weed Control:

XtendiMax® With VaporGrip® Technology can be applied either postharvest in the fall, spring, or summer during the fallow period or to crop stubble/set-aside acres. Apply XtendiMax® With VaporGrip® Technology as a broadcast or spot treatment to emerged and actively growing weeds after crop harvest (postharvest) and before a killing frost or in the fallow cropland or crop stubble the following spring or summer.

See the "Crop Rotational Restrictions" in Section 10 of this label for the recommended interval between application and planting to prevent crop injury.

Rates and Timings:

Apply 5.5 – 44 fluid ounces of XtendiMax® With VaporGrip® Technology per acre. Refer to Table 1 to determine use rates for specific targeted weed species. For best performance, apply XtendiMax® With VaporGrip® Technology when annual weeds are less than 4 inches tall, when biennial weeds are in the rosette stage and to perennial weed regrowth in late summer or fall following a mowing or tillage treatment. The most effective control of upright perennial broadleaf weeds such as Canada thistle and Jerusalem artichoke occurs if XtendiMax® With VaporGrip® Technology is applied when the majority of weeds have at least 4 – 6 inches of regrowth or for weeds such as field bindweed and hedge bindweed that are in or beyond the full bloom stage.

Avoid disturbing treated areas following application. Treatments may not kill weeds that develop from seed or underground plant parts such as rhizomes or bulblets, after the effective period for XtendiMax® With VaporGrip® Technology. For seedling control, a follow-up program or other cultural practices could be instituted. For small grain in-crop uses of XtendiMax® With VaporGrip® Technology, refer to the small grain section for details.

11.3 Conservation Reserve Program (CRP)

XtendiMax® With VaporGrip® Technology is recommended for use on both newly seeded and established grasses grown in Conservation Reserve or federal Set-Aside Programs. Treatments of XtendiMax® With VaporGrip® Technology will injure or may kill alfalfa, clovers, lespedeza, wild winter peas, vetch, and other legumes.

Newly Seeded Areas

XtendiMax® With VaporGrip® Technology may be applied either preplant or postemergence to newly seeded grasses or small grains such as barley, oats, rye, sudanqrass, wheat, or other grain species grown as a cover crop. Postemergence applications may be made after seedling grasses exceed the 3-leaf stage. Rates of XtendiMax® With VaporGrip® Technology greater than 22 fluid ounces per treated acre may severely injure newly seeded grasses.

Preplant applications may injure new seedlings if the interval between application and grass planting is less than 45 days per 22 fluid ounces of XtendiMax® With VaporGrip® Technology applied per treated acre west of the Mississippi River or 20 days per 22 fluid ounces applied east of the Mississippi River.

Established Grass Stands

Established grass stands are perennial grasses planted one or more seasons prior to treatment. Certain species (bentgrass, carpetgrass, smooth brome, buffalograss, or St. Augustinegrass) may be injured when treated with more than 22 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre.

When applied at recommended rates, XtendiMax® With VaporGrip® Technology will control many annual and biennial weeds and provide control or suppression of many perennial weeds.

Rates and Timings

Apply 5.5 - 44 fluid ounces of XtendiMax® With VaporGrip® Technology per acre. Refer to **Table 1** for rates based on target weed species. Retreatments may be made as needed; however, do not exceed a total of 88 fluid ounces (4 pints) of XtendiMax® With VaporGrip® Technology per acre per year.

11.4 Corn (Field, Pop, Seed, And Silage)

Direct contact of XtendiMax® With VaporGrip® Technology with corn seed must be avoided. If corn seeds are less than 1.5 inches below the surface, delay application until corn has emerged.

Applications of XtendiMax® With VaporGrip® Technology to corn during periods of rapid growth may result in temporary leaning. Corn will usually become erect within 3 to 7 days. Cultivation should be delayed until after corn is growing normally to avoid breakage.

Corn may be harvested or grazed for feed once the crop has reached the ensilage (milk) stage or later in maturity.

Up to 2 applications of XtendiMax® With VaporGrip® Technology may be made during a growing season. Sequential applications must be separated by 2 weeks or more.

Do not apply XtendiMax® With VaporGrip® Technology to seed corn or popcorn without first verifying with your local seed corn company (supplier) the selectivity of XtendiMax® With VaporGrip® Technology on your inbred line or variety of popcorn. This precaution will help avoid potential injury of sensitive varieties.

Avoid using crop oil concentrates after crop emergence as crop injury may result. Use crop oil concentrates only in dry conditions when corn is less than 5 inches tall when applying XtendiMax® With VaporGrip® Technology.

Use of sprayable fluid fertilizer as the carrier is not recommended for applications of XtendiMax® With VaporGrip® Technology made after corn emergence.

XtendiMax® With VaporGrip® Technology is not registered for use on sweet corn.

Preplant and Preemergence Application in No-Tillage Corn:

Rates: Apply 22 fluid ounces of XtendiMax® With VaporGrip® Technology per acre on medium- or fine-textured soils containing 2.5% or greater organic matter. Use 11 fluid ounces per acre on coarse soils (sand, loamy sand, and sandy loam) or medium- and fine-textured soils with less than 2.5% organic matter.

Timing: XtendiMax® With VaporGrip® Technology can be applied to emerging weeds before, during, or after planting a corn crop. When planting into a legume sod (e.g., alfalfa or clover), apply XtendiMax® With VaporGrip® Technology after 4 – 6 inches of regrowth has occurred

Preemergence Application in Conventional or Reduced Tillage Corn:

Rates: Apply 22 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre on medium- or fine-textured soils containing 2.5% organic matter or more. Do not apply to coarse textured soils (sand, loamy sand, or sandy loam) of any soil with less than 2.5% organic matter until after corn emergence (See Early Postemergence uses below).

Timing: XtendiMax® With VaporGrip® Technology may be applied after planting and prior to corn emergence. Pre-emergence application of XtendiMax® With VaporGrip® Technology does not require mechanical incorporation to become active. A shallow mechanical incorporation is recommended if application is not followed by adequate rainfall or sprinkler irrigation. Avoid tillage equipment (e.g., drags, harrows) which concentrates treated soil over seed furrow as seed damage could result.

Preemergence control of cocklebur, jimsonweed, and velvetleaf may be reduced if conditions such as low temperature or lack of soil moisture cause delayed or deep germination of weeds.

Early Postemergence Application in All Tillage Systems:

Rates: Apply 22 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre. Reduce the rate to 11 fluid ounces per treated acre if corn is growing on coarse textured soils (sand, loamy sand, and sandy loam).

Timing: Apply between corn emergence and the 5-leaf stage or 8 inches tall, whichever occurs first. Refer to Late Postemergence Applications if the sixth true leaf is emerging from whorl or corn is greater than 8 inches tall.

Late Postemergence Application:

Rate: Apply 11 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre.

Timing: Apply XtendiMax® With VaporGrip® Technology from 8 - 36 inch tall corn or 15 days before tassel emergence, whichever comes first. For best performance, apply when weeds are less than 3 inches tall.

Apply directed spray when corn leaves prevent proper spray.

11.5 Cotton

For directions for use with crops with Xtend Technology see the "CROPS WITH XTEND TECHNOLOGY" section of this label.

Preplant Application:

Apply up to 11 fluid ounces of XtendiMax® With VaporGrip® Technology per acre to control emerged broadleaf weeds prior to planting cotton in conventional or conservation tillage systems.

For best performance, apply XtendiMax® With VaporGrip® Technology when weeds are in the 2 - 4 leaf stage and rosettes are less than 2 inches across.

Following application of XtendiMax® With VaporGrip® Technology and a minimum accumulation of 1 inch of rainfall or overhead irrigation, allow a minimum of 21 days between treatment and planting per application of 11 fluid ounces per acre or less. This plant back interval must be observed prior to planting cotton.

Do not apply preplant to cotton west of the Rockies.

Do not make XtendiMax® With VaporGrip® Technology preplant applications to cotton in geographic areas with average annual rainfall less than 25 inches.

If applying a spring preplant treatment following application of a fall preplant (postharvest) treatment, then the combination of both treatments may not exceed 2 pounds acid equivalent per acre.

11.6 Grass Grown For Seed

Apply 11 - 22 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre on seedling grass after the crop reaches the 3 -5 leaf stage. Apply up to 44 fluid ounces of XtendiMax® With VaporGrip® Technology on well-established perennial grass. For best performance, apply XtendiMax® With VaporGrip® Technology when weeds are in the 2 - 4 leaf stage and rosettes are less than 2 inches across. Use the higher level of listed rate ranges when treating more mature weeds or dense vegetative growth.

To suppress annual grasses such as brome (downy and ripgut), rattail fescue, and windgrass, apply up to 44 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre in the fall or late summer after harvest and burning of established grass seed crops. Applications should be made immediately following the first irrigation when the soil is moist and before weeds have more than 2 leaves.

Do not apply XtendiMax® With VaporGrip® Technology after the grass seed crop begins to joint.

Refer to the Pasture, Hay, Rangeland, and General Farmstead section for grazing and feeding restrictions.

11.7 Proso Millet

For use only within Colorado, Nebraska, North Dakota, South Dakota, [Optional: **and Wyoming].**

XtendiMax® With VaporGrip® Technology combined with an appropriate tank-mix partner will provide control or suppression of the annual broadleaf weeds listed in **Section 13.**

11.8 Pasture, Hay, Rangeland, And General Farmstead (Noncropland)

XtendiMax® With VaporGrip® Technology is recommended for use on pasture, hay, rangeland, and general farmstead (non-cropland) (including fencerows and non-irrigation ditch banks) for control or suppression of broadleaf weed and brush species listed in Section 12.

XtendiMax® With VaporGrip® Technology may also be applied to non-cropland areas to control broadleaf weeds in noxious weed control programs, districts, or areas including broadcast or spot treatment of roadsides and highways, utilities, railroad, and pipeline rights-of-way. Noxious weeds must be recognized at the state level, but programs may be administered at state, county, or other level.

XtendiMax® With VaporGrip® Technology uses described in this section also pertain to grasses and small grains (forage sorghum, rye, sudangrass, or wheat) grown for grass, forage, fodder, hay and/or pasture use only. Grasses and small grains not grown for grass, forage, fodder, hay and/or pasture must comply with crop-specific uses in this label. Some perennial weeds may be controlled with lower rates of XtendiMax® With VaporGrip® Technology (refer to **Table 1**).

Rates and Timings

Refer to **Table 1** for rate selection based on targeted weed or brush species.

Rates above 44 fluid ounces of XtendiMax® With VaporGrip® Technology per acre are for spot treatments only. Spot treatment is defined as no more than a total of 1000 square feet of treated area per acre. Do not broadcast apply more than 44 fluid ounces per acre.

Retreatments may be made as needed; however, do not exceed a total of 44 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre during a growing season.

Grass grown for hay requires a minimum of 7-days between treatment and harvest.

Crop-Specific Restrictions

Do not apply more than 22 fluid ounces of XtendiMax® With VaporGrip® Technology per acre to small grains grown for pasture.

Newly seeded areas may be severely injured if more than 22 fluid ounces of XtendiMax® With VaporGrip® Technology is applied per acre.

Established grass crops growing under stress can exhibit various injury symptoms that may be more pronounced if herbicides are applied. Bentgrass, carpetgrass, buffalograss, and St. Augustin grass may be injured if more than 22 fluid ounces of XtendiMax® With VaporGrip® Technology is applied per acre.

Usually colonial bent grasses are more tolerant than creeping types. Velvet grasses are most easily injured. Treatments will kill or injure alfalfa, clovers, lespedeza, wild winter peas, vetch, and other legumes.

Table 3 lists the timing restrictions for grazing or harvesting hay from treated fields. There are no grazing restrictions for animals other than lactating dairy animals.

Table 3. Timing Restrictions for Lactating Dairy Animals Following Treatment

XtendiMax® With VaporGrip® Technology Rate per Treated Acre (fluid ounces)	Days Before Grazing (days)	Days Before Hay Harvest (days)
Up to 22	7	37
Up to 44	21	51

- **Spot Treatments:** XtendiMax® With VaporGrip® Technology may be applied to individual clumps or small areas of undesirable vegetation using handgun or similar types of application equipment. Apply diluted sprays to allow complete wetting (up to runoff) of foliage and stems.

Cut Surface Treatments:

XtendiMax® With VaporGrip® Technology may be applied as a cut surface treatment for control of unwanted trees and prevention of sprouts of cut trees.

Rate: Mix 1 part XtendiMax® With VaporGrip® Technology with 1 - 3 parts water to create the application solution. Use the lower dilution rate when treating difficult-to-control species.

- **For Frill or Girdle Treatments**: Make a continuous cut or a series of overlapping cuts using an axe to girdle tree trunk. Spray or paint the cut surface with the solution.
- **For Stump Treatments:** Spray or paint freshly cut surface with the water mix. The area adjacent to the bark should be thoroughly wet.

Applications For Control of Dormant Multiflora Rose:

XtendiMax® With VaporGrip® Technology can be applied when plants are dormant as an undiluted spot treatment directly to the soil or as a Lo-Oil basal bark treatment using an oil-water emulsion solution.

- **Spot treatments:** Spot treatment applications of XtendiMax® With VaporGrip® Technology should be applied directly to the soil as close as possible to the root crown but within 6 - 8 inches of the crown. On sloping terrain, apply XtendiMax® With VaporGrip® Technology to the uphill side of the crown. Do not apply when snow or water prevents applying XtendiMax® With VaporGrip® Technology directly to the soil. The use rate of XtendiMax® With VaporGrip® Technology depends on the canopy diameter of the multiflora rose.

  Examples: Use 0.34, 1.38, or 3.23 fluid ounces of XtendiMax® With VaporGrip® Technology respectively, for 5, 10, or 15 feet canopy diameters.

- **Lo-Oil basal bark treatments:** For Lo-Oil basal bark treatments, apply XtendiMax® With VaporGrip® Technology to the basal stem region from the ground line to a height of 12 - 18 inches. Spray until runoff, with special emphasis on covering the root crown. For best results, apply XtendiMax® With VaporGrip® Technology when plants are dormant. Do not apply after bud break or when plants are showing signs of active growth. Do not apply when snow or water prevents applying XtendiMax® With VaporGrip® Technology to the ground line.

  To prepare approximately 2 gallons of a Lo-Oil spray solution:

1) Combine 1.5 gallons of water, 1 ounce of emulsifier, 22 fluid ounces of XtendiMax® With VaporGrip® Technology, and 2.5 pints of No. 2 diesel fuel.
2) Adjust the amounts of materials used proportionately to the amount of final spray solution desired.

Do not exceed 8 gallons of spray solution mix applied per acre, per year.

11.9 SMALL GRAINS

11.9.1 Small Grains Not Underseeded To Legumes (fall- and spring-seeded barley, oat, triticale and wheat)

Refer to the specific crop sections below for use rates. When treating difficult to control weeds such as kochia, wild buckwheat, cow cockle, prostrate knotweed, Russian thistle, and prickly lettuce or when dense vegetative growth occurs, use the 4.12 – 5.5 fluid ounces of XtendiMax® With VaporGrip® Technology per acre.

Timings: Apply XtendiMax® With VaporGrip® Technology before, during, or after planting small grains. See specific small grain crop uses below for maximum crop stage. For best performance, apply XtendiMax® With VaporGrip® Technology when weeds are in the 2 - 3 leaf stage and rosettes are less than 2 inches across. Applying XtendiMax® With VaporGrip® Technology to small grains during periods of rapid growth may result in crop leaning. This condition is temporary and will not reduce crop yields.

Restrictions for small grain areas that are grazed or cut for hay are indicated in **Table 3** in Pasture, Hay, Rangeland, and General Farmstead section of this label.

11.9.2 Small Grains: Barley (fall- and spring-seeded)

Early season applications:

Apply 2.75 – 5.5 fluid ounces of XtendiMax® With VaporGrip® Technology to fall-seeded barley prior to the jointing stage. Apply 2.75 – 4.12 fluid ounces of XtendiMax® With VaporGrip® Technology before spring-seeded barley exceeds the 4-leaf stage.

Note: For spring barley varieties that are seeded during the winter months or later, follow the rates and timings given for spring-seeded barley.

Preharvest applications:

XtendiMax® With VaporGrip® Technology can be used to control weeds that may interfere with harvest of fall and spring-seeded barley. Apply 11 fluid ounces of XtendiMax® With VaporGrip® Technology per acre as a broadcast or spot treatment to annual broadleaf weeds when barley is in the hard dough stage and the green color is gone from the nodes (joints) of the stern. Best results will be obtained if application can be made when weeds are actively growing, but before weeds canopy.

Allow a minimum of 7 days between treatment and harvest. Do not use preharvest-treated barley for seed unless a germination test is performed on the seed with an acceptable result of 95% germination or better.

[Optional: Do not make preharvest applications in California.]

11.9.3 Small Grains: Oats (fall- and spring-seeded)

Early season applications:

Apply 2.75 – 5.5 fluid ounces of XtendiMax® With VaporGrip® Technology per acre to fall-seeded oat prior to the jointing stage. Apply 2.75 – 5.5 fluid ounces of XtendiMax® With VaporGrip® Technology before spring-seeded oat exceed the 5-leaf stage.

Do not tank mix XtendiMax® With VaporGrip® Technology with 2,4-D in oat.

Allow a minimum of 7 days between treatment and harvest.

11.9.4 Small Grains: Triticale (fall- and spring-seeded)

Early season applications:

Apply 2.75 – 5.5 fluid ounces of XtendiMax® With VaporGrip® Technology to triticale.

Early season applications to fall-seeded triticale must be made prior to the jointing stage.

Early season applications to spring-seeded triticale must be made before triticale reaches the 6-leaf stage.

11.9.5 Small Grains: Wheat (fall- and spring-seeded)

Early Season Applications:

Apply 2.75 – 5.5 fluid ounces of XtendiMax® With VaporGrip® Technology to wheat unless using one of the fall-seeded wheat specific programs below.

Early season applications to fall-seeded wheat must be made prior to the jointing stage.

Early season applications to spring-seeded wheat must be made before wheat exceeds the 6-leaf stage.

Early developing wheat varieties such as TAM 107, Madison, or Wakefield must receive application between early tillering and the jointing stage. Care should be taken in staging these varieties to be certain that the application occurs prior to the jointing stage.

Specific use programs for fall-seeded wheat only:

[Optional: XtendiMax® With VaporGrip® Technology may be used at 8.25 fluid ounces on fall-seeded wheat in Western Oregon as a spring application only.] In Colorado, Kansas, New Mexico, Oklahoma, and Texas, up to 11 fluid ounces of XtendiMax® With VaporGrip® Technology may be applied on fall-seeded wheat after it exceeds the 3-leaf stage for suppression of perennial weeds, such as field bindweed. Applications may be made in the fall following a frost but before a killing freeze.

Preharvest applications:

XtendiMax® With VaporGrip® Technology can be used to control weeds that may interfere with harvest of wheat. Apply 11 fluid ounces XtendiMax® With VaporGrip® Technology per acre as a broadcast or spot treatment to annual broadleaf weeds when wheat is in the hard dough stage and the green color is gone from the nodes (joints) of the stem. Best results will be obtained if application can be made when weeds are actively growing but before weeds canopy.

Allow a minimum of 7 days between treatment and harvest. Do not use preharvest-treated wheat for seed unless a germination test is performed on the seed with an acceptable result of 95% germination or better.

[Optional: Do not make preharvest applications in California.]

11.10 Sorghum

XtendiMax® With VaporGrip® Technology may be applied preplant, postemergence, or preharvest in sorghum to control many annual broadleaf weeds and to reduce competition from established perennial broadleaf weeds, as well as control their seedlings.

Do not graze or feed treated sorghum forage or silage prior to mature grain stage. If sorghum is grown for pasture or hay, refer to Pasture, Hay, Rangeland, and General Farmstead section of this label for specific grazing and feeding restrictions.

Do not apply XtendiMax® With VaporGrip® Technology to sorghum grown for seed production.

Preplant Application:

Up to 11 fluid ounces of XtendiMax® With VaporGrip® Technology may be applied per acre if applied at least 15 days before sorghum planting.

Postemergence Application:

Up to 11 fluid ounces of XtendiMax® With VaporGrip® Technology per acre may be applied after sorghum is in the spike stage (all sorghum emerged) but before sorghum is 15 inches tall. For best performance, apply XtendiMax® With VaporGrip® Technology when the sorghum crop is in the 3 - 5 leaf stage and weeds are small (less than 3 inches tall). Use drop pipes (drop nozzles) if sorghum is taller than 8 inches. Keep the spray off the sorghum leaves and out of the whorl to reduce the likelihood of crop injury and to improve spray coverage of weed foliage. Applying XtendiMax® With VaporGrip® Technology to sorghum during periods of rapid growth may result in temporary leaning of plants or rolling of leaves. These effects are usually outgrown within 10 - 14 days. Delay harvest until 30 days after a preharvest treatment.

Preharvest uses in Texas and Oklahoma only: Up to 11 fluid ounces of XtendiMax® With VaporGrip® Technology per acre may be applied for weed suppression any time after the sorghum has reached the soft dough stage. An agriculturally approved surfactant may be used to improve performance (read Section 8.0 for tank mixing instructions). Delay harvest until 30 days after a preharvest treatment.

Split Application:

XtendiMax® With VaporGrip® Technology may be applied in split applications: preplant followed by postemergence or preharvest; or postemergence followed by preharvest. Do not exceed 11 fluid ounces per acre, per application or a total of 22 ounces per acre, per season.

11.11 Soybean

For directions for use with crops with Xtend Technology see the "CROPS WITH XTEND TECHNOLOGY" section of this label.

Preplant Applications:

Apply 5.5 -22 fluid ounces of XtendiMax® With VaporGrip® Technology per acre to control emerged broadleaf weeds prior to planting soybeans. Do not exceed 22 fluid ounces of XtendiMax® With VaporGrip® Technology per acre in a spring application prior to planting soybeans.

Following application of XtendiMax® With VaporGrip® Technology and a minimum accumulation of 1 inch rainfall or overhead irrigation, allow a minimum of 14 days between treatment and planting for applications of 11 fluid ounces per acre or less, and allow a minimum of 28 days between treatment and planting for applications of 22 fluid ounces per acre. These plant back intervals must be observed prior to planting soybeans or crop injury may occur.

Do not make XtendiMax® With VaporGrip® Technology preplant applications to soybeans in geographic areas with average annual rainfall less than 25 inches.

Preharvest Applications:

XtendiMax® With VaporGrip® Technology can be used to control many annual and perennial broadleaf weeds and control or suppress many biennial and perennial broadleaf weeds in soybean prior to harvest (refer to **Section 10**). Apply 11 - 44 fluid ounces of XtendiMax® With VaporGrip® Technology per acre as a broadcast or spot treatment to emerged and actively growing weeds after soybean pods have reached mature brown color and at least 75% leaf drop has occurred.

Do not harvest soybeans until 7 days after application.

Treatments may not kill weeds that develop from seed or underground plant parts, such as rhizomes or bulblets, after the effective period for XtendiMax® With VaporGrip® Technology. For seedling control, a follow-up program or other cultural practice could be instituted.

Do not use preharvest-treated soybean for seed unless a germination test is performed on the seed with an acceptable result of 95% germination or better.

Do not feed soybean fodder or hay following a preharvest application of XtendiMax® With VaporGrip® Technology.

[Optional: Do not make preharvest applications in California.]

11.12 Sugarcane

Apply XtendiMax® With VaporGrip® Technology for control of annual, biennial, or perennial broadleaf weeds listed in Section 11. Apply 11 - 33 fluid ounces of XtendiMax® With VaporGrip® Technology per acre for control of annual weeds, 22 - 44 fluid ounces for control of biennial weeds, and 44 fluid ounces for control or suppression of perennial weeds.

Use the higher level of listed rate ranges when treating dense vegetative growth.

A single retreatment may be made as needed, however, do not exceed a total of 88 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre during a growing season.

Timing: XtendiMax® With VaporGrip® Technology may be applied to sugarcane any time after weeds have emerged, but before the close-in stage of sugarcane. Applications of 44 fluid ounces of XtendiMax® With VaporGrip® Technology per acre made over the top of actively growing sugarcane may result in crop injury.

When possible, direct the spray beneath the sugarcane canopy to minimize the likelihood of crop injury. Using directed sprays will also help maximize the spray coverage of weed foliage.

Allow a minimum of 87 days between treatment and harvest.

11.13 Farmstead Turf (noncropland) and Sod Farms

Do not use on residential sites.

For use in general farmstead (noncropland) and sod farms, apply 4.12 – 44 fluid ounces of XtendiMax® With VaporGrip® Technology per acre to control or suppress growth of many annual, biennial, and some perennial broadleaf weeds commonly found in turf. XtendiMax® With VaporGrip® Technology will also suppress many other listed perennial broadleaf weeds and woody brush and vine species. Refer to Table 1 for rate recommendations based on targeted weed or brush species and growth stage.

Repeat treatments may be made as needed; however, do not exceed 44 fluid ounces of XtendiMax® With VaporGrip® Technology per acre, per growing season.

Apply 30 - 200 gallons of diluted spray per treated acre (3 - 17 quarts of water per 1,000 square feet), depending on density or height of weeds treated and on the type of equipment used.

To avoid injury to newly seeded grasses, delay application of XtendiMax® With VaporGrip® Technology until after the second mowing. Furthermore, applying more than 16 fluid ounces of XtendiMax® With

VaporGrip® Technology per treated acre may cause noticeable stunting or discoloration of sensitive grass species such as bentgrass, carpetgrass, buffalograss, and St. Augustinegrass.

In areas where roots of sensitive plants extend, do not apply more than 5.5 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre on coarse-textured (sandy-type) soils, or in excess of 8 fluid ounces per treated acre on fine-textured soils. Do not make repeat applications in these areas for 30 days and until previous applications of XtendiMax® With VaporGrip® Technology have been activated in the soil by rain or irrigation.

12.0 CROPS WITH XTEND® TECHNOLOGY

COTTON WITH XTENDFLEX® TECHNOLOGY (INCLUDING BOLLGARD II® XTENDFLEX® COTTON, BOLLGARD® 3 XTENDFLEX® COTTON, OR XTENDFLEX® COTTON), ROUNDUP READY 2 XTEND® SOYBEAN, AND XTENDFLEX® SOYBEAN CONTAIN A PATENTED GENE THAT PROVIDES TOLERANCE TO DICAMBA, THE ACTIVE INGREDIENT IN THIS PRODUCT. THIS PRODUCT WILL CAUSE SEVERE CROP INJURY OR DESTRUCTION AND YIELD LOSS IF APPLIED TO COTTON AND SOYBEAN THAT ARE NOT DICAMBA TOLERANT, INCLUDING COTTON AND SOYBEAN WITH A TRAIT ENGINEERED TO CONFER TOLERANCE TO AUXIN HERBICIDES OTHER THAN DICAMBA. FOLLOW THE REQUIREMENTS SET FORTH HEREIN TO PREVENT SEVERE CROP INJURY OR DESTRUCTION AND YIELD LOSS. CONTACT WITH FOLIAGE, GREEN STEMS, OR FRUIT OF CROPS, OR ANY DESIRABLE PLANTS THAT DO NOT CONTAIN A DICAMBA TOLERANCE GENE OR ARE NOT NATURALLY TOLERANT TO DICAMBA, COULD RESULT IN SEVERE PLANT INJURY OR DESTRUCTION.

Information on cotton with XtendFlex® Technology, Roundup Ready 2 Xtend® Soybean, and XtendFlex® Soybean can be obtained from your seed supplier or Monsanto representative. Cotton with XtendFlex® Technology, Roundup Ready 2 Xtend® Soybean, and XtendFlex® Soybean must be purchased from an authorized licensed seed supplier.

Note: Cotton with XtendFlex® Technology, Roundup Ready 2 Xtend® Soybean, and XtendFlex® Soybean and methods of controlling weeds and applying dicamba in a Cotton with XtendFlex® Technology, Roundup Ready 2 Xtend® Soybean, and XtendFlex® Soybean crop are protected under U.S. patent law. No license to use Cotton with XtendFlex® Technology, Roundup Ready 2 Xtend® Soybean, and XtendFlex® Soybean is granted or implied with the purchase of this herbicide product. Cotton with XtendFlex® Technology, Roundup Ready 2 Xtend® Soybean, and XtendFlex® Soybean are owned by Monsanto and a license must be obtained from Monsanto before using it. Contact your Authorized Monsanto Retailer for information on obtaining a license to Cotton with XtendFlex® Technology, Roundup Ready 2 Xtend® Soybean, and XtendFlex® Soybean.

12.1 Cotton with XtendFlex® Technology

DO NOT combine these instructions with other instructions in the "COTTON" Section of **this** label for use over crops that do not contain the dicamba tolerance trait.

TYPES OF APPLICATIONS: Burndown/Early Preplant; Preplant; At-Planting; Preemergence; Postemergence (In-crop)

USE INSTRUCTIONS
Apply this product in a minimum of 15 gallons of spray solution per acre as a broadcast application. For best performance, control weeds early when they are less than 4 inches. Timely application will improve control and reduce weed competition. Refer to the following table for maximum application rates of this product with cotton with XtendFlex® Technology.

Maximum Application Rates	
Combined total per year for all applications	88 fluid ounces per acre (2.0 lb. a.e. dicamba per acre)
Total of all Burndown/Early Preplant, Preplant, At-Planting, and Preemergence applications	44 fluid ounces per acre (1.0 lb. a.e. dicamba per acre)
Total of all in-crop applications up to mid-bloom stage or no more than 60 days after planting, whichever occurs first	44 fluid ounces per acre (1.0 lb. a.e. dicamba per acre)
Maximum In-crop, single application	22 fluid ounces per acre (0.5 lb. a.e. dicamba per acre)

a.e. – acid equivalent

Refer to Table 1 for application rates for weed type and growth stage controlled by this product. Maximum in-crop application rate should be used when treating tough to control weeds, dense vegetative growth or weeds with a well-established root system.

Burndown/Early Preplant, Preplant, At-Planting, Preemergence
USE INSTRUCTIONS: This product may be used to control broadleaf weeds and may be applied before, during or immediately after planting cotton with XtendFlex® Technology. Refer to the "WEEDS CONTROLLED" section of this label for XtendiMax® With VaporGrip® Technology for specific weeds controlled.

RESTRICTIONS:
- The maximum combined quantity of this product that may be applied for all burndown/early preplant, preplant, at-planting, and preemergence applications is 44 fluid ounces (1.0 lb a.e. dicamba) per acre per season.
- The maximum application rate for a single, burndown/early preplant, preplant, at-planting, or preemergence application must not exceed 44 fluid ounces (1.0 lb a.e. dicamba) per acre.
- Do not apply less than 22 fluid ounces (0.5 lb a.e. dicamba) per acre.

Postemergence (In-crop)
USE INSTRUCTIONS: This product may be used to control broadleaf weeds in cotton with XtendFlex® Technology. In-crop applications of this product can be made up to mid-bloom stage or no more than 60 days after planting, whichever occurs first.

The maximum and minimum rate for any single, in-crop application is 22 fluid ounces (0.5 lb a.e. dicamba) per acre. Using the appropriate application rate may reduce the selection for resistant weeds. For best performance, control weeds early when they are less than 4 inches. To the extent permitted by applicable law, Monsanto Company does not warrant product performance of applications to labeled weeds greater than 4 inches in height. Sequential applications of this product may be necessary to control new flushes of weeds or on tough-to-control weeds. Allow at least 7 days between applications.

Postemergence applications of this product mixed with adjuvants may cause a leaf response to cotton with XtendFlex® Technology. The symptoms usually appear as necrotic spots on fully expanded leaves. EC-based products that are tank mixed with products containing dicamba may increase the severity of the leaf damage.

RESTRICTIONS:
- The combined total applied in-crop up to mid-bloom stage or no more than 60 days after planting, whichever occurs first, must not exceed 44 fluid ounces (1.0 lb a.e. dicamba) per acre and a maximum of two in-crop applications.

- The maximum single, in-crop application rate must not exceed 22 fluid ounces (0.5 lb a.e. dicamba).
- The combined total per year for all applications must not exceed 88 fluid ounces (2.0 lb a.e. dicamba) per acre. For example, if a preplant application of 44 fluid ounces (1.0 lb a.e. dicamba) per acre was made, then the combined total in-crop applications must not exceed 44 fluid ounces (1.0 lb a.e. dicamba) per acre.

12.2 Roundup Ready 2 Xtend® Soybean and XtendFlex® Soybean

DO NOT combine these instructions with other instructions in the "SOYBEAN" Section of **this** label for use over crops that do not contain the dicamba tolerance trait.

TYPES OF APPLICATIONS: Burndown/Early Preplant; Preplant; At-Planting; Preemergence; Postemergence (In-crop); Lay-By

USE INSTRUCTIONS
Apply this product in a minimum of 15 gallons of spray solution per acre as a broadcast application. For best performance, control weeds early when they are less than 4 inches. Timely application will improve control and reduce weed competition. Refer to the following table for maximum application rates of this product with Roundup Ready 2 Xtend® Soybean and XtendFlex® Soybean.

Maximum Application Rates	
Combined total per year for all applications	88 fluid ounces per acre (2.0 lb. a.e. dicamba per acre)
Total of all Burndown/Early Preplant, Preplant, At-Planting, and Preemergence applications	44 fluid ounces per acre (1.0 lb. a.e. dicamba per acre)
Total of all In-crop applications from emergence prior to beginning bloom (R1 stage soybeans) or no more than 45 days after planting, whichever occurs first	44 fluid ounces per acre (1.0 lb. a.e. dicamba per acre)
Maximum In-crop, single application	22 fluid ounces per acre (0.5 lb. a.e. dicamba per acre)

a.e. – acid equivalent

Refer to Table 1 for application rates for weed type and growth stage controlled by this product. Maximum in-crop application rate should be used when treating tough to control weeds, dense vegetative growth or weeds with a well-established root system.

Burndown/Early Preplant, Preplant, At-Planting, Preemergence
USE INSTRUCTIONS: This product may be used to control broadleaf weeds and may be applied before, during or immediately after planting Roundup Ready 2 Xtend® Soybean and XtendFlex® Soybean. Refer to the "WEEDS CONTROLLED" section of this label for specific weeds controlled.

RESTRICTIONS:
- The maximum combined quantity of this product that may be applied for all burndown/early preplant, preplant, at-planting, and preemergence applications is 44 fluid ounces (1.0 lb a.e. dicamba) per acre per season.
- The maximum application rate for a single, burndown/early preplant, preplant, at-planting, or preemergence application must not exceed 44 fluid ounces (1.0 lb a.e. dicamba) per acre.
- Do not apply less than 22 fluid ounces (0.5 lb a.e. dicamba) per acre.

Postemergence (In-crop)
USE INSTRUCTIONS: This product may be used to control broadleaf weeds in Roundup Ready 2 Xtend® Soybean and XtendFlex® Soybean. In-crop applications of this product can be made prior to beginning bloom (R1 stage soybeans) or no more than 45 days after planting, whichever occurs first.

The maximum and minimum rate for any single, in-crop application is 22 fluid ounces (0.5 lb a.e. dicamba) per acre. Using the appropriate application rate may reduce the selection for resistant weeds. For best performance, control weeds early when they are less than 4 inches. To the extent permitted by applicable law, Monsanto Company does not warrant product performance of applications to labeled weeds greater than 4 inches in height.

A second application of this product may be necessary to control new flushes of weeds and can be made prior to beginning bloom (R1 stage soybeans) or no more than 45 days after planting, whichever occurs first. Allow at least 7 days between applications. For best results, apply XtendiMax® With VaporGrip® Technology after some weed re-growth has occurred.

Application of this product postemergence and under stressful environments may cause temporary loss of turgor, a response commonly described as leaf droop in Roundup Ready 2 Xtend® Soybean and XtendFlex® Soybean. Typically, affected plants recover in 1-3 days depending on the level of droop and environmental conditions.

RESTRICTIONS:

- The combined total application rate in-crop prior to beginning bloom (R1 stage soybeans) or no more than 45 days after planting, whichever occurs first, must not exceed 44 fluid ounces (1.0 lb. a.e. dicamba) per acre a maximum of two in-crop applications.
- Do not make in-crop applications of this product during and after beginning bloom (R1 stage soybeans) or more than 45 days after planting.
- The maximum single, in-crop application rate must not exceed 22 fluid ounces (0.5 lb. a.e. dicamba) per acre. The combined total per year for all applications must not exceed 88 fluid ounces (2.0 lb. a.e. dicamba) per acre.

13.0 WEEDS CONTROLLED

General Weed List, Including ALS-, Glyphosate, and Triazine-Resistant Biotypes

Annuals

Alkanet
Amaranth, Palmer, Powell, Spiny
Aster, Slender
Bedstraw, Catchweed
Beggarweed, Florida
Broomweed, Common
Buckwheat, Tartary, Wild
Buffalobur
Burclover, California
Burcucumber
Buttercup, Corn, Creeping, Roughseed, Western Field
Carpetweed
Catchfly, Nightflowering
Chamomile, Corn
Chevil, Bur
Chickweed, Common
Clovers
Cockle, Corn, Cow, White
Cocklebur, Common
Copperleaf, Hophornbeam
Cornflower (Bachelor Button)
Croton, Tropic, Woolly
Daisy, English
Dragonhead, American
Eveningprimrose, Cutleaf
Falseflax, Smallseed
Fleabane, Annual
Flixweed
Fumitory
Goosefoot, Nettleleaf
Hempnettle
Henbit
Jacobs-Ladder
Jimsonweed
Knawel (German Moss)
Knotweed, Prostrate
Kochia
Ladysthumb
Lambsquarters Common
Lettuce, Miners, Prickly
Mallow, Common, Venice
Marestail (Horseweed)
Mayweed
Morningglory, Ivyleaf, Tall
Mustard, Black, Blue, Tansy, Treacle, Tumble, Wild, Yellowtops

Nightshade, Black, Cutleaf
Pennycress, Field (Fanweed, Frenchweed, Stinkweed)
Pepperweed, Virginia (Peppergrass)
Pigweed, Prostrate, Redroot (Carelessweed), Rough, Smooth, Tumble
Pineappleweed
Poorjoe
Poppy, Red-horned
Puncturevine
Purslane, Common
Pusley, Florida
Radish, Wild
Ragweed, Common, Giant (Buffaloweed), Lance-Leaf
Rocket, London, Yellow
Rubberweed, Bitter (Bitterweed)
Salsify
Senna, Coffee
Sesbania, Hemp
Shepherdpurse
Sicklepod
Sida, Prickly (Teaweed)
Smartweed, Green, Pennsylvania
Sneezeweed, Bitter
Sowthistle, Annual, Spiny
Spanish Needles
Spikeweed, Common
Spurge, Prostrate, Leafy
Spurry, Corn
Starbur, Bristly
Starwort, Little
Sumpweed, Rough
Sunflower, Common (Wild), Volunteer
Thistle, Russian
Velvetleaf
Waterhemp, Common, Tall
Waterprimrose, Winged
Wormwood

Biennials

Burdock, Common
Carrot, Wild (Queen Anne's Lace)
Cockle, White
Eveningprimrose, Common
Geranium, Carolina
Gromwell
Knapweed, Diffuse, Spotted
Mallow, Dwarf
Plantain, Bracted
Ragwort, Tansy
Starthistle, Yellow
Sweetclover
Teasel
Thistle, Bull, Milk, Musk, Plumeless

Perennials

Alfalfa[1]
Artichoke, Jerusalem
Aster, Spiny, Whiteheath
Bedstraw, Smooth
Bindweed, Field, Hedge
Blueweed, Texas
Bursage, Woollyleaf[1] (Bur Ragweed, Povertyweed)
Buttercup, Tall
Campion, Bladder
Chickweed, Field, Mouseear
Chicory[1]
Clover[1], Hop
Dandelion[1], Common
Dock[1] Broadleaf (Bitterdock), Curly
Dogbane, Hemp
Dogfennel[1] (Cypressweed)
Fern, Bracken
Garlic, Wild
Goldenrod, Canada, Missouri
Goldenweed, Common
Hawkweed
Henbane, Black[1]
Horsenettle, Carolina
Ironweed
Knapweed, Black, Diffuse, Russian[1], Spotted
Milkweed, Climbing, Common, Honeyvine, Western Whorled
Nettle, Stinging
Nightshade, Silverleaf (White Horsenettle)
Onion, Wild
Plaintain, Broadleaf, Buckhorn
Pokeweed
Ragweed, Western
Redvine
Sericia Lespedeza
Smartweed, Swamp
Snakeweed, Broom
Sorrel[1], Red (Sheep Sorrel)
Sowthistle[1], Perennial
Spurge, Leafy
Sundrops
Thistle, Canada, Scotch
Toadflex, Dalmatian
Tropical Soda Apple
Trumpetcreeper (Buckvine)
Vetch
Waterhemlock, Spotted
Waterprimrose, Creeping
Woodsorrel[1], Creeping, Yellow
Wormwood, Absinth, Louisiana
Yankeeweed
Yarrow, Common[1]

[1] Noted perennials may be controlled using lower rates of **XtendiMax® With VaporGrip® Technology** than those recommended for other listed perennial weeds.

Woody Species

Alder
Ash
Aspen
Basswood
Beech
Birch
Blackberry[2]
Blackgum[2]
Cedar[2]
Cherry
Chinquapin
Cottonwood

Creosotebush[2]	Ivy, Poison	Rose[2], McCartney, Multiflora
Cucumbertree	Kudzu	Sagebrush, Fringed[2]
Dewberry[2]	Locust, Black	Sassafras
Dogwood[2]	Maple	Serviceberry
Elm	Mesquite	Spicebush
Grape	Oak	Spruce
Hawthorn (Thornapple)[2]	Oak, Poison	Sumac
Hemlock	Olive, Russian	Sweetgum[2]
Hickory	Persimmon, Eastern	Sycamore
Honeylocust	Pine	Tarbush
Honeysuckle	Plum, Sand (Wild Plum)[2]	Willow
Hornbeam	Poplar	Witchhazel
Huckleberry	Rabbitbrush	Yaupon[2]
Huisache	Redcedar, Eastern[2]	Yucca[2]

[2]Growth suppression only

14.0 LIMIT OF WARRANTY AND LIABILITY

Monsanto Company warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes set forth in the Complete Directions for Use label booklet ("Directions") when used in accordance with those Directions under the conditions described therein. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, NO OTHER EXPRESS WARRANTY OR IMPLIED WARRANTY OF FITNESS FOR PARTICULAR PURPOSE OR MERCHANTABILITY IS MADE. This warranty is also subject to the conditions and limitations stated herein. Specifically, and without limiting the foregoing, MONSANTO MAKES NO RECOMMENDATION OR WARRANTY HEREIN REGARDING THE USE OF ANY PRODUCTS THAT MAY APPEAR ON THE WEBSITE REFERENCED IN THE TANK-MIXING INSTRUCTIONS HEREIN, REGARDLESS OF WHETHER SUCH PRODUCT IS USED ALONE OR IN A TANK MIX WITH XTENDIMAX® WITH VAPORGRIP® TECHNOLOGY. BUYER AND ALL USERS ARE SOLELY RESPONSIBLE FOR ANY LACK OF PERFORMANCE, LOSS, OR DAMAGE IN CONNECTION WITH THE USE OR HANDLING OF ANY SUCH PRODUCT ALONE OR IN A TANK MIX WITH XTENDIMAX® WITH VAPORGRIP® TECHNOLOGY.

Buyer and all users shall promptly notify this Company of any claims whether based in contract, negligence, strict liability, other tort or otherwise.

To the extent consistent with applicable law, buyer and all users are responsible for all loss or damage from use or handling which results from conditions beyond the control of this Company, including, but not limited to, incompatibility with products other than those set forth in the Directions, application to or contact with desirable vegetation, failure of this product to control weed biotypes which develop resistance to dicamba, unusual weather, weather conditions which are outside the range considered normal at the application site and for the time period when the product is applied, as well as weather conditions which are outside the application ranges set forth in the Directions, application in any manner not explicitly set forth in the Directions, moisture conditions outside the moisture range specified in the Directions, or the presence of products other than those set forth in the Directions in or on the soil, crop or treated vegetation.

This Company does not warrant any product reformulated or repackaged from this product except in accordance with this Company's stewardship requirements and with express written permission from this Company.

For in-crop (over-the-top) uses on crops with Xtend® Technology, crop safety and weed control performance are not warranted by Monsanto when this product is used in conjunction with "brown bag" or "bin run" seed saved from previous year's production and replanted.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE LIMIT OF THE LIABILITY OF THIS COMPANY OR ANY OTHER SELLER FOR

ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT (INCLUDING CLAIMS BASED IN CONTRACT, NEGLIGENCE, STRICT LIABILITY, OTHER TORT OR OTHERWISE) SHALL BE THE PURCHASE PRICE PAID BY THE USER OR BUYER FOR THE QUANTITY OF THIS PRODUCT INVOLVED, OR, AT THE ELECTION OF THIS COMPANY OR ANY OTHER SELLER, THE REPLACEMENT OF SUCH QUANTITY, OR, IF NOT ACQUIRED BY PURCHASE, REPLACEMENT OF SUCH QUANTITY. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, IN NO EVENT SHALL THIS COMPANY OR ANY OTHER SELLER BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES.

Upon opening and using this product, buyer and all users are deemed to have accepted the terms of this LIMIT OF WARRANTY AND LIABILITY which may not be varied by any verbal or written agreement. If terms are not acceptable, return at once unopened.

Bollgard II®, Bollgard®, Degree Xtra®, Field Master®, Harness®, Roundup Ready®, Roundup Ready 2 Xtend®, Roundup PowerMAX®, RT 3®, Roundup WeatherMAX®, XtendiMax®, XtendFlex® and VaporGrip® are registered trademarks of Monsanto Technology LLC. All other trademarks are the property of their respective owners.

EPA Reg. No. 524-617

EPA Establishment No. [insert appropriate est. no.]

Lot number [insert appropriate lot number]

Net contents [insert net contents]

Packed for:
MONSANTO COMPANY
800 N. Lindbergh Blvd.
ST. LOUIS, MISSOURI, 63167 U.S.A.

© [DATE]

Message

From: MARVIN, THOMAS [AG/1920] [thomas.marvin@bayer.com]
Sent: 10/29/2018 7:04:32 PM
To: Baris, Reuben [Baris.Reuben@epa.gov]; tina.bhakta@bayer.com
CC: Goodis, Michael [Goodis.Michael@epa.gov]; Kenny, Daniel [Kenny.Dan@epa.gov]
Subject: RE: Label edits for xtendimax
Attachments: MASTER LABEL 524-617_10292018.pdf

Reuben,

Please find attached a further revision.

Tom

Tom Marvin
Director, Federal Regulatory Affairs
1300 I Street, NW
Washington, DC 20005
Cell: 202-676-7846
Desk: 202-383-2851

From: Baris, Reuben [mailto:Baris.Reuben@epa.gov]
Sent: Thursday, October 25, 2018 11:50 AM
To: MARVIN, THOMAS [AG/1920] <thomas.marvin@bayer.com>; tina.bhakta@bayer.com
Cc: Goodis, Michael <Goodis.Michael@epa.gov>; Kenny, Daniel <Kenny.Dan@epa.gov>
Subject: Label edits for xtendimax

Hi Tom and Tina,
Attached are a new round of label edits you must incorporate.
Lets discuss if you have any questions.
Thanks.
Reuben

REUBEN BARIS | PRODUCT MANAGER, TEAM 25 | HERBICIDE BRANCH
U.S. ENVIRONMENTAL PROTECTION AGENCY, OFFICE OF PESTICIDE PROGRAMS | (703) 305-7356

This system contains confidential and copyrighted information. Access to the system is limited to users only and only for approved business purposes.
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If improper activity or use is suspected, all available information may be used by the Company for possible disciplinary action, prosecution, civil claim or any remedy or lawful purpose.

MASTER LABEL FOR EPA REG. NO. 524-617

RESTRICTED USE PESTICIDE

For retail sale to and use only by Certified Applicators

This labeling expires on 12/20/2020~~, Do not use or distribute this product after 12/20/2020~~.

Primary Brand Name:

M1768 Herbicide

Alternate Brand Name:

XtendiMax® With VaporGrip® Technology

DICAMBA	GROUP	4	HERBICIDE

ACTIVE INGREDIENT:

Diglycolamine salt of dicamba (3,6-dichloro-*o*-anisic acid)* 42.8%
OTHER INGREDIENTS: 57.2%

TOTAL: 100.0%
* contains 29.0%, 3,6-dichloro-*o*-anisic acid (2.9 pounds acid equivalent per U.S. gallon or 350 grams per liter).

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RESTRICTED USE PESTICIDE

For retail sale to and use only by Certified Applicators

XtendiMax® With VaporGrip® Technology

Complete Directions for Use

This labeling expires on 12/20/2020. ~~Do not use or distribute this product after 12/20/2020~~.

EPA Reg. Number: 524-617

For weed control in asparagus, conservation reserve programs, corn, cotton, fallow croplands, general farmstead (noncropland), sorghum, grass grown for seed, hay, proso millet, pasture, rangeland, small grains, sod farms and farmstead turf, soybean, sugarcane, cotton with XtendFlex Technology, Roundup Ready 2 Xtend Soybean, and XtendFlex Soybean.

DICAMBA	GROUP	4	HERBICIDE

This label supersedes any previously issued labeling for this product, including previously issued supplemental labeling.

XtendiMax® With VaporGrip® Technology is approved by U.S. EPA for all uses specified on this label in the following states, subject to county restriction as noted: Alabama, Arkansas, Arizona, Colorado, Delaware, Florida (excluding Palm Beach County), Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Michigan, Minnesota, Mississippi, Missouri, Nebraska, New Jersey, New Mexico, New York, North Carolina, North Dakota, Oklahoma, Ohio, Pennsylvania, South Carolina, South Dakota, Tennessee (excluding Wilson County), Texas, Virginia, West Virginia, Wisconsin.

Check the registration status of each product in each state before using.

READ THE ENTIRE LABEL FOR **XTENDIMAX® WITH VAPORGRIP® TECHNOLOGY**
BEFORE PROCEEDING WITH THE USE DIRECTIONS CONTAINED IN THIS LABEL

READ AND FOLLOW ALL APPLICABLE DIRECTIONS, RESTRICTIONS, AND PRECAUTIONS ON THE CONTAINER LABEL AND BOOKLET AND WWW.XTENDIMAXAPPLICATIONREQUIREMENTS.COM.

Read the "LIMIT OF WARRANTY AND LIABILITY" statement at the end of the label before buying or using. If terms are not acceptable, return at once unopened.

Net contents:

EPA Establishment No.:

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1.0 INGREDIENTS

ACTIVE INGREDIENT:

Diglycolamine salt of dicamba (3,6-dichloro-*o*-anisic acid)* 42.8%
OTHER INGREDIENTS: 57.2%

TOTAL: 100.0%
* contains 29.0%, 3,6-dichloro-*o*-anisic acid (2.9 pounds acid equivalent per U.S. gallon or 350 grams per liter).

DICAMBA	GROUP	4	HERBICIDE

2.0 IMPORTANT PHONE NUMBERS

1. FOR PRODUCT INFORMATION OR ASSISTANCE IN USING THIS PRODUCT, CALL TOLL-FREE, 1-800-332-3111.
2. IN CASE OF AN EMERGENCY INVOLVING THIS HERBICIDE PRODUCT, OR FOR MEDICAL ASSISTANCE, CALL COLLECT, DAY OR NIGHT, (314)-694-4000.

IN CASE OF SPILL:

Steps to be taken in case material is released or spilled:

Dike and contain the spill with inert material (sand, earth, etc.) and transfer liquid and solid diking material to separate containers for disposal. Remove contaminated clothing, and wash affected skin areas with soap and water. Wash clothing before re-use. Keep the spill out of all sewers and open bodies of water.

3.0 PRECAUTIONARY STATEMENTS

3.1 Hazards to Humans and Domestic Animals

Keep out of reach of children.

CAUTION!

Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

FIRST AID	
IF IN EYES	• Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
IF SWALLOWED:	• Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give anything by mouth to an unconscious person.
IF ON SKIN OR CLOTHING:	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 to 20 minutes.

	• Call a poison control center or doctor for treatment advice.

- Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
- You can call **(314) 694-4000**, collect day or night, for emergency medical treatment information.
- This product is identified as **XtendiMax® With VaporGrip® Technology, EPA Registration No. 524-617.**

PERSONAL PROTECTIVE EQUIPMENT (PPE)

All mixers, loaders, applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks

See "Engineering Controls Statement" for additional requirements.
Follow the manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

ENGINEERING CONTROLS STATEMENT

When handlers use closed systems, or enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

IMPORTANT: When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for "all mixers, loaders, applicators and other handlers" and have such PPE immediately available for use in an emergency, such as a spill or equipment breakdown.

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

3.2 Environmental Hazards

Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters or rinsate. Apply this product only as directed on the label.

This chemical is known to leach through soil into ground water under certain conditions as a result of agricultural use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.

Ground and Surface Water Protection

Point source contamination - To prevent point source contamination, do not mix or load this pesticide product within 50 feet of wells (including abandoned wells and drainage wells), sink holes, perennial or intermittent streams and rivers, and natural or impounded lakes and reservoirs. Do not apply pesticide

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product within 50 feet of wells. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pad or properly diked mixing/loading areas as described below.

Mixing, loading, rinsing, or washing operations performed within 50 feet of a well are allowed only when conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be on or move across the pad. The pad must be self-contained to prevent surface water flow over or from the pad. The pad capacity must be maintained at 110% that of the largest pesticide container or application equipment used on the pad and have sufficient capacity to contain all product spills, equipment or container leaks, equipment wash waters, and rainwater that may fall on the pad. The containment capacity does not apply to vehicles delivering pesticide shipments to the mixing/loading site. States may have in effect additional requirements regarding wellhead setbacks and operational containment.

Care must be taken when using this product to prevent: a) back siphoning into wells, b) spills or c) improper disposal of excess pesticide, spray mixtures or rinsates. Check valves or anti-siphoning devices must be used on all mixing equipment.

Movement by surface runoff or through soil - Do not apply under conditions which favor runoff. Do not apply to impervious substrates such as paved or highly compacted surfaces in areas with high potential for ground water contamination. Ground water contamination may occur in areas where soils are permeable or coarse and ground water is near the surface. Do not apply to soils classified as sand with less than 3% organic matter and where ground water depth is shallow. To minimize the possibility of ground water contamination, carefully follow application rate recommendations as affected by soil type in the Crop Specific Information section of this label.

Movement by water erosion of treated soil - Do not apply or incorporate this product through any type of irrigation equipment nor by flood or furrow irrigation. Ensure treated areas have received at least one-half inch rainfall (or irrigation) before using tailwater for subsequent irrigation of other fields.

Endangered Species Concerns
Use of this product in a manner inconsistent with its labeling may pose a hazard to endangered or threatened species. When using this product, you must follow the measures contained in the Endangered Species Protection Bulletin for the area in which you are applying the product. To obtain Bulletins, no more than six months before using this product, consult https://www.epa.gov/endangered-species or call 1-844-447-3813. You must use the Bulletin valid for the month in which you will apply the product.

It is a Federal offense to use any pesticide in a manner that results in the death of an endangered species.

3.3 Physical or Chemical Hazards

Do not store or heat near oxidizing agents, hazardous chemical reaction may occur.

4.0 DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling. This product can only be used in accordance with the Directions for Use on this label. This labeling must be in the user's possession during application.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulations.

This is a restricted use pesticide.

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4.1 Training

Prior to applying this product in the 2019 growing season and each growing season thereafter, all applicator(s) applying this product must complete dicamba or auxin-specific training. If training is available and required by the state where the applicator intends to apply this product, the applicator must complete that training. If the state where the application is intended does not require auxin or dicamba-specific training, then the applicator must complete dicamba or auxin-specific training provided by one of the following sources: a) a registrant of a dicamba product approved for in-crop use with dicamba-tolerant crops, or b) a state or state-authorized provider.

4.2 Record Keeping

Record keeping is required for applications of this product. **The certified applicator must keep the following records for a period of two years**; records must be generated as soon as practical but no later than 72 hours after application and a record must be kept for each application of Xtendimax with VaporGrip Technology. Records must be made available to State Pesticide Control Official(s), USDA, and EPA upon request. An example form summarizing record keeping requirements can be found on www.xtendimaxapplicationrequirements.com.

1. All Items required by 7 CFR Part 110 (RECORDKEEPING ON RESTRICTED USE PESTICIDES BY CERTIFIED APPLICATORS) including:
    a. The brand or product name
    b. The EPA registration number
    c. The total amount applied
    d. The month, day, and year of application
    e. The location of the application
    f. The crop, commodity, stored product, or site of application
    g. The size of treated area
    h. The name of the certified applicator
    i. The certification number of the certified applicator
2. Training: Date and provider of required training completed and proof of completion.
3. Receipts of Purchase: Receipts or copies for the purchase of this product.
4. Product Label: A copy of this product label, and any state special local needs label that supplements this label.
5. Crop Planting Date: Record of the date at which the crop was planted.
6. Buffer Requirement: Record of the buffer distance calculation and any areas included within the buffer distance calculations as allowed in Section 9.1.4.a.
7. Sensitive Crops Awareness: Record that a sensitive crop registry was consulted and survey adjacent fields documenting the crops/areas surrounding the field prior to application. At a minimum, records must include the name of the sensitive crop registry and the date it was consulted and documentation of adjacent crops/areas and the date the survey was conducted (read Section 9.1.4.b for additional information).
8. Start and Finish Times of Each Application: Record of the time at which the application started and the time when the application finished.
9. Application Timing: Record of the type of application (for example: pre-emergence, post-emergence) and number of days after planting if post-emergence.
10. Air Temperature: Record of the air temperature in degrees Fahrenheit at the start and completion of each application.
11. Wind Speed and Direction: Record of the wind speed and direction (the direction from which the wind is blowing) at boom height at the start and completion of each application of this product (Read Section 9.1.1 for information on wind speed).

12. Nozzle and Pressure: Record of the spray nozzle manufacturer/brand, type, orifice size, and operating pressure used during each application of this product (Read Section 9.1.1 for information on nozzles and pressures.)
13. Tank Mix Products: Record of the brand names and EPA registration numbers (if available) for all products (pesticides, adjuvants, and other products) that were tank mixed with this product for each application (Read Section 8.0 for more information on tank mixing.)
14. Spray System Cleanout: Record of compliance with the section of this label titled Section 9.5: Proper Spray System Equipment Cleanout. At a minimum, records must include the confirmation that the spray system was clean before using this product and that the post-application cleanout was completed in accordance with Section 9.5.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about Personal Protective Equipment (PPE), and restricted-entry intervals. The requirements in this box only apply to uses of this product that are covered by the WPS.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 24 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as, plants, soil, or water is:

- Coveralls worn over short-sleeved shirt and short pants
- Chemical-resistant footwear plus socks
- Waterproof gloves
- Chemical-resistant headgear for overhead exposure
- Protective eyewear

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Do not enter or allow people (or pets) to enter the treated area until sprays have dried. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Do not enter or allow other people or pets to enter until sprays have dried.

5.0 STORAGE AND DISPOSAL

Proper pesticide storage and disposal are essential to protect against exposure to people and the environment due to leaks and spills, excess product or waste, and vandalism. Do not allow this product to contaminate water, foodstuffs, feed or seed by storage and disposal. Open dumping is prohibited. This product may not be mixed, loaded, or used within 50 feet of all wells including abandoned wells, drainage wells, and sinkholes. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pad or properly diked mixing/loading areas as described above

5.1 Pesticide Storage

Groundwater contamination may be reduced by diking and flooring of permanent liquid bulk storage sites with an impermeable material. Spillage or leakage should be contained and absorbed with clay granules, sawdust, or equivalent material for disposal.
Store in original container in a well-ventilated and away from food, pet food, feed, seed, fertilizers, and veterinary supplies. Avoid cross-contamination with other pesticides. Keep container closed to prevent spills and contamination.

5.2 Pesticide Disposal

To avoid wastes, use all material in this container, including rinsate, by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide

disposal program. Such programs are often run by state or local governments or by industry. All disposal must be in accordance with applicable federal, state and local regulations and procedures.
[*Alternate PESTICIDE DISPOSAL statement for transport vehicles only:* To avoid wastes, empty as much product from this transport vehicle as possible for repackaging or use in accordance with label directions. If wastes cannot be avoided, offer remaining product or rinsate to a waste disposal facility or pesticide disposal program. All disposal must be in accordance with applicable federal, state and local regulations and procedures.]

5.3 Container Handling and Disposal

[*Optional label statement if applicable*: See container label for container handling and disposal instructions and refilling limitations.]

[*CONTAINER HANDLING AND DISPOSAL STATEMENTS AND REFILLING LIMITATIONS FOR CONTAINER LABELS*]

[*CONTAINER HANDLING AND DISPOSAL STATEMENT AND REFILLING LIMITATION FOR NONREFILLABLE RIGID CONTAINERS OF LESS THAN 1-GALLON CAPACITY*]

Nonrefillable container. Do not reuse or refill this container.

[*Alternate container statement:* Nonrefillable container. Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state.]

Triple rinse this container promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Then offer this container for recycling, if available. If recycling is not available, dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.

[*Alternate container disposal statement:* Once properly rinsed, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or Monsanto at 1-800-ROUNDUP (1-800-768-6387). If recycling is not available, dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.]

[*CONTAINER HANDLING AND DISPOSAL STATEMENT AND REFILLING LIMITATION FOR NONREFILLABLE RIGID PLASTIC 2.5-GALLON CONTAINERS AND OTHER NONREFILLABLE CONTAINERS OF GREATER THAN 1-GALLON BUT EQUAL TO OR LESS THAN 5-GALLON CAPACITY*]

Nonrefillable container. Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state.

[*Alternate container statement:* Nonrefillable container. Do not reuse or refill this container.]

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Triple rinse or pressure rinse (or equivalent) this container promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Once properly rinsed, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. [*Optional container disposal statement:* To find the nearest site, contact your chemical dealer or Monsanto at 1-800-ROUNDUP (1-800-768-6387)]. If recycling is not available, dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.

[*Alternate container disposal statement:* Then offer this container for recycling, if available. If recycling is not available, dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.]

[*CONTAINER HANDLING AND DISPOSAL STATEMENT AND REFILLING LIMITATION FOR NONREFILLABLE RIGID PLASTIC 30-GALLON CONTAINERS AND OTHER NONREFILLABLE CONTAINERS OF GREATER THAN 5-GALLON CAPACITY*]

Nonrefillable container. Do not reuse or refill this container.

[*Alternate container statement:* Nonrefillable container. Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state.]

Triple rinse or pressure rinse (or equivalent) this container promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Once properly rinsed, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. [*Alternate container disposal statement:* To find the nearest site, contact your chemical dealer or Monsanto at 1-800-ROUNDUP (1-800-768-6387)]. If recycling is not available,

dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.

[*Alternate container disposal statement:* Then offer the container for recycling, if available. If recycling is not available, dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.]

[*Optional container label statement:* Return Properly Rinsed Container to Monsanto for Recycling Contact: 1-800-ROUNDUP (1-800-768-6387)]

[*CONTAINER HANDLING AND DISPOSAL STATEMENT AND REFILLING LIMITATION FOR ALL REFILLABLE CONTAINERS, EXCEPT TRANSPORT VEHICLES*]

Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose.

Cleaning this container before refilling is the responsibility of the refiller. Cleaning this container before final disposal is the responsibility of the person disposing of the container.

To clean this container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer this container for recycling, if available.

[*Optional container disposal statement:* To obtain information about recycling refillable containers, contact Monsanto Company at 1-800-ROUNDUP (1-800-768-6387)]

[*Optional container label statement:* Return Properly Rinsed Container to Monsanto for Recycling, Call 1-800-ROUNDUP (1-800-768-6387)]

[*CONTAINER HANDLING AND DISPOSAL STATEMENT FOR ALL TRANSPORT VEHICLES AS DEFINED IN 40 CFR 156.3]*

THIS LABEL FOR USE WITH TRANSPORT VEHICLES ONLY

Emptied container retains vapor and product residue. Observe all precautions stated on this label until the container is cleaned, reconditioned or destroyed. Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, and worn-out threads and closures. Clean thoroughly before reuse for transportation of a material of different composition or before retiring this transport vehicle from service.

[Alternative label statement: NET CONTENTS: See Bill of Lading]

[Alternative label statement: LOT: See Bill of Lading]

[Alternative label statement: For Net Contents and Lot Number, see Bill of Lading]

6.0 PRODUCT INFORMATION

XtendiMax® With VaporGrip® Technology is approved by U.S. EPA for all uses specified on this label in the following states, subject to county restriction as noted: Alabama, Arkansas, Arizona, Colorado, Delaware, Florida (excluding Palm Beach County), Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Michigan, Minnesota, Mississippi, Missouri, Nebraska, New Jersey, New Mexico, New York, North Carolina, North Dakota, Oklahoma, Ohio, Pennsylvania, South Carolina, South Dakota, Tennessee (excluding Wilson County), Texas, Virginia, West Virginia, Wisconsin.

Additional state restrictions and requirements may apply. The applicator must comply with any additional state requirements and restrictions.

This product is a water-soluble formulation intended for control and suppression of many annual, biennials, and perennial broadleaf weeds, as well as woody brush and vines listed in the WEEDS CONTROLLED section of this label. This product may be used for control of these weeds in asparagus, corn, cotton, conservation reserve programs, fallow cropland, grass grown for seed, hay, proso millet, pasture, rangeland, general farmstead (noncropland), small grains, sod farms and farmstead turf, sorghum, soybean, sugarcane, Cotton with XtendFlex Technology, Roundup Ready 2 Xtend Soybean, and XtendFlex Soybean.

XtendiMax® With VaporGrip® Technology is a contact, systemic herbicide, which can have moderate residual control on small seeded broadleaf weeds, including waterhemp, lambsquarters and Palmer pigweed, depending on rainfall and soil type.

XtendiMax® With VaporGrip® Technology is readily absorbed by plants through shoot and root uptake, translocates throughout the plant's system, and accumulates in areas of active growth. XtendiMax® With VaporGrip® Technology interferes with the plant's growth hormones (auxins) resulting in death of many broadleaf weeds.

Failure to properly clean the entire spray system can result in inadvertent contamination of the spray system. You must ensure that the spray system used to apply this product is clean before using this product.

Rainfast period: Rainfall or irrigation occurring within 4 hours after postemergence applications may reduce the effectiveness of this product.

Refer to the CROP-SPECIFIC INFORMATION and CROPS WITH XTEND TECHNOLOGY sections for application timing and other crop-specific details.

6.1 Restrictions

The applicator must read the entire label, including product labeling and follow all restrictions for XtendiMax® With VaporGrip® Technology. Restrictions included, but are not limited to:

- DO NOT APPLY THIS PRODUCT AERIALLY.
- DO NOT TANK MIX WITH PRODUCTS CONTAINING AMMONIUM SALTS SUCH AS AMMONIUM SULFATE (AMS) AND UREA AMMONIUM NITRATE. Small quantities of AMS can greatly increase the volatility potential of dicamba. Read the TANK MIXING INSTRUCTIONS of this label (Section 8.0) for instructions regarding other tank mix products.
- DO NOT APPLY TO CROPS UNDER STRESS DUE TO LACK OF MOISTURE, HAIL DAMAGE, FLOODING, HERBICIDE INJURY, MECHANICAL INJURY, INSECTS, OR WIDELY FLUCTUATING TEMPERATURES AS INJURY MAY RESULT.
- DO NOT APPLY THROUGH ANY TYPE OF IRRIGATION EQUIPMENT. DO NOT TREAT IRRIGATION DITCHES OR WATER USED FOR CROP IRRIGATION OR DOMESTIC PURPOSES.

- DO NOT MAKE APPLICATION OF THIS PRODUCT IF RAIN THAT MAY EXCEED SOIL FIELD CAPACITY AND RESULT IN SOIL RUNOFF IS EXPECTED IN THE NEXT 24 HOURS

Review the entire label including, specific crop use direction sections for additional restrictions.

7.0 WEED RESISTANCE MANAGEMENT

DICAMBA	GROUP	4	HERBICIDE

Dicamba mimics auxin (a plant hormone) resulting in a hormone imbalance in sensitive plants that interferes with normal cell division, cell enlargement, and protein synthesis. Dicamba active ingredient is a Group 4 herbicide based on the mode of action classification system of the Weed Science Society of America. Any weed population can contain plants naturally resistant to Group 4 herbicides. Weed species resistant to Group 4 herbicides can be effectively managed utilizing another herbicide from a different Group, or by using other cultural or mechanical practices.

7.1 Weed Management Practices

Certain agronomic practices can delay or reduce the likelihood that resistant weed populations will develop and can be utilized to manage weed resistance once it occurs.

Do not use less than the labeled rate of this product in a single application. Using the appropriate application rate can minimize the selection for resistant weeds.

Proactively implementing diversified weed control strategies to minimize selection for weed populations resistant to one or more herbicides is a best practice. A diversified weed management program may include the use of multiple herbicides with different sites of action and overlapping weed spectrum with or without tillage operations and/or other cultural practices. Research has demonstrated that using the labeled rate and directions for use is important to delay the selection for resistance.

The continued effectiveness of this product depends on the successful implementation of a weed resistance management program.

To aid in the prevention of developing weeds resistant to this product:

- Scout fields before application to ensure herbicides and rates will be appropriate for the weed species and weed sizes present.
- Start with a clean field, using either a burndown herbicide application or tillage.
- Control weeds early when they are relatively small (less than 4 inches).
- Apply full rates of XtendiMax® With VaporGrip® Technology for the most difficult to control weed in the field at the specified time (correct weed size) to minimize weed escapes.
- Avoid tank mixtures with other herbicides that reduce the efficacy of this product (through antagonism), or with ones that encourage application rates of this product below those specified on this label.
- Scout fields after application to detect weed escapes or shifts in weed species.
- Control weed escapes before they reproduce by seed or proliferate vegetatively.
- Report any incidence of non-performance of this product against a particular weed species to your Monsanto retailer or representative or call 1-844-RRXTEND (1-844-779-8363).
- If resistance is suspected, treat weed escapes with an herbicide having a site of action other than Group 4 and/or use non-chemical methods to remove escapes, as practical, with the goal of preventing further seed production. EPA defines suspected herbicide resistance as the situation where the following three indicators occur at a site or location:

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- Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds;
- A spreading patch of non-controlled plants of a particular weed species; and
- Surviving plants mixed with controlled individuals of the same species.

Additionally, users should follow as many of the following herbicide resistance management practices as is practical:

- Use a broad spectrum soil-applied herbicide with other sites of action as a foundation in a weed control program.
- Utilize sequential applications of herbicides with alternative sites of action.
- Rotate the use of this product with non-Group 4 herbicides.
- Avoid making more than two applications of dicamba and any other Group 4 herbicides within a single growing season unless mixed with an herbicide with a different mechanism of action with an overlapping spectrum for the difficult to control weeds.
- Incorporate non-chemical weed control practices, such as mechanical cultivation, crop rotation, cover crops and weed-free crop seeds, as part of an integrated weed control program.
- Use good agronomic principles that enhance crop development and crop competitiveness.
- Thoroughly clean plant residues from equipment before leaving fields suspected to contain resistant weeds.
- Manage weeds in and around fields, during and after harvest to reduce weed seed production.

Contact the local agricultural extension service, Monsanto representative, agricultural retailer or crop consultant for further guidance on weed control practices as needed.

7.2 Management of Dicamba-Resistant Biotypes

Appropriate testing is critical in order to determine if a weed is resistant to dicamba. Contact your Monsanto representative to determine if resistance in any particular weed biotype has been confirmed in your area, or visit on the Internet www.weedresistancemanagement.com or www.weedscience.org.

Monsanto Company is not responsible for any losses that result from the failure of this product to control dicamba-resistant weed biotypes.

The following good agronomic practices can reduce the spread of confirmed dicamba-resistant biotypes:

- If a naturally occurring resistant biotype is present in your field, this product may be tank-mixed or applied sequentially with an appropriately labeled herbicide with a different mode of action to achieve control (read Section 8.0 for more information on tank mixing).
- Cultural and mechanical control practices (e.g., crop rotation or tillage) can also be used as appropriate.
- Scout treated fields after herbicide application and control weed escapes, including resistant biotypes, before they set seed.
- Thoroughly clean equipment, as practical, for all weed seeds before leaving fields known to contain resistant biotypes.

8.0 TANK MIXING INSTRUCTIONS

Auxin herbicides such as dicamba have the potential to volatilize in lower pH spray mixtures. Knowing the pH of your spray mixture and making the appropriate adjustments to avoid a low pH spray mixture can reduce the potential for volatilization to occur. Talk to your local agricultural consultant, extension agent, or Bayer representative for recommendations to prevent low pH spray mixtures.

XtendiMax® With VaporGrip® Technology may only be tank-mixed with products that have been tested and found not to adversely affect the offsite movement potential of XtendiMax® With VaporGrip®

Technology. The applicator must check the website found at www.xtendimaxapplicationrequirements.com no more than 7 days before applying XtendiMax® With VaporGrip® Technology.

DO NOT tank mix any product with XtendiMax® With VaporGrip® Technology unless:

1. The intended tank-mix product is identified on the list of tested products found at www.xtendimaxapplicationrequirments.com;
2. The intended products are not prohibited on either this label or the label of the tank mix product; and
3. All requirements and restrictions on www.xtendimaxapplicationrequirments.com are followed.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, MONSANTO MAKES NO RECOMMENDATION OR WARRANTY HEREIN REGARDING THE USE OF ANY PRODUCT THAT MAY APPEAR ON THE WEBSITE REFERENCED ABOVE, REGARDLESS OF WHETHER SUCH PRODUCT IS USED ALONE OR IN A TANK MIX WITH XTENDIMAX® WITH VAPORGRIP® TECHNOLOGY. BUYER AND ALL USERS ARE SOLELY RESPONSIBLE FOR ANY LACK OF PERFORMANCE, LOSS, OR DAMAGE IN CONNECTION WITH THE USE OR HANDLING OF ANY SUCH PRODUCT ALONE OR IN A TANK MIX WITH XTENDIMAX® WITH VAPORGRIP® TECHNOLOGY. See the section titled "LIMIT OF WARRANTY AND LIABILITY" herein for more information.

8.1 Compatibility Test for Mix Components

Before mixing components, always perform a compatibility jar test.

- For 15 gallons per acre spray volume, use 2.5 cups (591.5 mL) of water. For other spray volumes, adjust rates accordingly. Only use water from the intended source at the source temperature.
- Add components in the sequence indicated in the Mixing Order section below using 2 teaspoons for each pound or 1 teaspoon for each pint of labeled use rate per acre.
- Cap the jar and invert 10 cycles between component additions.
- When the components have all been added to the jar, let the solution stand for 15 minutes.
- Evaluate the solution for uniformity and stability. The spray solution should not have free oil on the surface; fine particles that precipitate to the bottom; or thick (clabbered) texture. If the spray solution is not compatible, repeat the compatibility test with the addition of a suitable compatibility agent. If the solution is then compatible, use the compatibility agent as directed on its label. If the solution is still incompatible, then do not mix the ingredients in the same tank.

8.2 Mixing Order

Only use approved tank mix products as directed on www.xtendimaxapplicationrequirements.com. Always read and follow label directions for all products in the tank mixture. It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. See section 8.0 for additional restrictions on tank mixing.

1. Ensure application and mixing equipment are clean and in proper working order
2. Water - Begin by agitating a thoroughly **clean sprayer** tank three-quarters full of clean water.
3. Agitation - Maintain constant agitation throughout mixing and application.
4. Drift Reducing Adjuvants (DRA)-(when applicable)
5. Inductor - If an inductor is used, rinse it thoroughly after each component has been added.

6. Products in PVA bags - Place any product contained in water-soluble PVA bags into the mixing tank. Wait until all water-soluble PVA bags have fully dissolved and the product is evenly mixed in the spray tank before continuing.
7. Water-dispersible products (dry flowables, wettable powders, suspension concentrates, or suspo-emulsions)
8. Water-soluble products (such as XtendiMax® With VaporGrip® Technology)
9. Emulsifiable concentrates (such as oil concentrate when applicable)
10. Water-soluble additives (when applicable)
11. Add remaining quantity of water.

Maintain constant agitation during application

8.3 Adjuvants, Drift Reducing Adjuvants, Surfactants, and Other Tank Mixed Products

See Section 8.0 TANK MIXING INSTRUCTIONS~~TANK MIXING INSTRUCTIONS~~ for tank mixing instructions for adjuvants, drift reducing adjuvants, surfactants, and other tank mixed products.

9.0 APPLICATION EQUIPMENT AND TECHNIQUES

DO NOT APPLY THIS PRODUCT USING AERIAL SPRAY EQUIPMENT.

XtendiMax® With VaporGrip® Technology can be applied to actively growing weeds as broadcast, band, or spot spray applications using water as a carrier. For best results, treat weeds early when they are relatively small (less than 4 inches). Timely application to small weeds early in the season will improve control and reduce weed competition. Refer to Table 1 for XtendiMax® With VaporGrip® Technology application rates for control or suppression by weed type and growth stage. For crop-specific application timing and other details, refer to the CROP-SPECIFIC INFORMATION section of this label.

APPLY THIS PRODUCT USING PROPERLY MAINTAINED AND CALIBRATED EQUIPMENT CAPABLE OF DELIVERING THE REQUIRED VOLUMES.

Using a hooded sprayer or other drift reduction technology in combination with approved nozzles may further reduce drift potential.

Cultivation: Do not cultivate within 7 days after applying this product.

Table 1. XtendiMax® With VaporGrip® Technology Application Rates for Control or Suppression by Weed Type and Growth Stage
Use rate limitations are given in sections 10 (RESTRICTIONS), 11 (CROP-SPECIFIC INFORMATION), and 12 (CROPS WITH XTEND TECHNOLOGY)

Weed Type and Stage	Rate Per Acre	Weed Type and Stage	Rate Per Acre
Annual[1]		**Perennial**	
Small, actively growing	11 – 22 fluid ounces	Top growth suppression	11 – 22 fluid ounces
Established weed growth	22 – 33 fluid ounces	Top growth control and root suppression	22 – 44 fluid ounces
		Noted perennials (footnote 1 in Section 13.0).	44 fluid ounces
		Other perennials (without footnote 1 in Section 13.0)[3]	44 fluid ounces

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Biennial Rosette diameter 1 – 3 inches Rosette diameter 3 inches or more Bolting	 11 – 22 fluid ounces 22 – 44 fluid ounces 44 fluid ounces	**Woody Brush & Vines** Top growth suppression Top growth control[2,3] Stems and stem suppression[3]	 22 – 44 fluid ounces 44 fluid ounces 44 fluid ounces

[1] Rates below 11 fluid ounces per acre may provide control or suppression but should typically be applied with other herbicides that are effective on the same species and biotype.
[2] Woody Species listed in section 13.0 may require tank mixes for adequate top growth control.
[3] DO NOT broadcast apply more than 44 ounces per acre for a single application and DO NOT exceed broadcast applications of more than 88 ounces per acre within the growing season when a sequential application is needed for control. Use the higher rate when treating dense vegetation or perennial weeds with established root growth. Perennials and Woody Species are defined as those listed in Section 13.0.

9.1 Spray Drift Management

Do not allow herbicide solution to mist, drip, drift or splash onto desirable vegetation because severe injury or destruction to desirable broadleaf plants could result.

The most effective way to reduce drift potential is to apply large droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if the application is made improperly, or under unfavorable environmental conditions (see the **"Temperature and Humidity"** and **"Temperature Inversions"** sections of this label).

9.1.1 Sprayer Setup

The following sprayer setup requirements for drift management must be followed:

- **Nozzle type.** The applicator must use an approved nozzle within a specified pressure range as found at www.xtendimaxapplicationrequirements.com when applying XtendiMax® With VaporGrip® Technology. Do not use any other nozzle and pressure combination not specifically listed on this website.

- **Spray Volume.** The applicator must apply this product in a **minimum of 15 gallons of spray solution per acre**. See Section 8.0 for information on approved tank mix products.

- **Equipment Ground Speed.** Do not exceed a **ground speed of 15 miles per hour**. Select a ground speed that will deliver the desired spray volume while maintaining the desired spray pressure, but slower speeds generally result in better spray coverage and deposition on the target area. Provided the applicator can maintain the required nozzle pressure, it is recommended that tractor speed is reduced to 5 miles per hour at field edges.

- **Spray boom Height.** Do not exceed a **boom height of 24 inches** above target pest or crop canopy. Excessive boom height will increase the drift potential.

- **Wind Speed.** Do not apply when wind speeds are **less than 3 MPH or greater than 10 MPH**. Only apply when wind speed at boom height is between 3 and 10 mph.

9.1.2 Temperature and Humidity

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When making applications in low relative humidity or temperatures above 91 degrees Fahrenheit, set up equipment to produce larger droplets to compensate for evaporation (for example: increase orifice size and/or increase spray volume as directed on www.xtendimaxapplicationrequirements.com). Larger droplets have a lower surface to volume ratio and can be impacted less by temperature and humidity. Droplet evaporation is most severe when conditions are both hot and dry.

9.1.3 Temperature Inversions

Do not apply this product during a temperature inversion as the off-target movement potential is high. In general, temperature inversions are more likely during nighttime hours. Applications of this product may ONLY occur one hour after sunrise though two hours before sunset.

- During a temperature inversion, the atmosphere is very stable and vertical air mixing is restricted, which can cause small, suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light, variable winds common during inversions.
- Temperature inversions can be characterized by increasing temperatures with altitude and can be common on evenings and nights with limited cloud cover and light to no wind. Cooling of air at the earth's surface takes place and warmer air is trapped above it. Temperature inversions can begin to form as the sun sets and often continue into the morning.
- Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.
- The inversion will typically dissipate with increased winds (above 3 miles per hour) or at sunrise when the surface air begins to warm (generally 3°F from morning low).

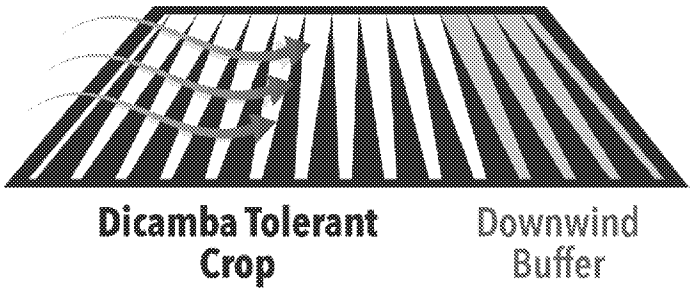
9.1.4 Buffer Requirements and Protection of Sensitive Crops

Do not apply under circumstances where drift may occur to food, forage, or other plantings that might be damaged or the crops rendered unfit for sale, use, or consumption.

9.1.4.a. **Buffer Requirement**

The applicator **must always maintain** a 110 foot downwind buffer (when applying up to 22 fluid ounces of this product per acre) or a 220 foot downwind buffer (when applying greater than 22 up to 44 fluid ounces of this product per acre) between the last treated row and the nearest downwind field edge (in the direction the wind is blowing).

If you have questions regarding Buffer Requirement contact Bayer at 1-844-RRXTEND prior to application.



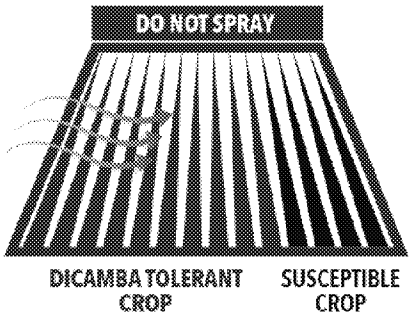
The following areas may be included in the buffer distance calculation when ~~directly~~ immediately adjacent to the treated field edges:

- Roads, paved or gravel surfaces, mowed and/or managed areas immediately adjacent to field such as road ditches.
- Planted agricultural fields containing: corn, dicamba tolerant cotton, dicamba tolerant soybean, sorghum, proso millet, small grains and sugarcane. If the applicator intends to include such crops as dicamba tolerant cotton and/or dicamba tolerant soybeans in the buffer distance calculation, the applicator must confirm the crops are in fact dicamba tolerant.
- Agricultural fields that have been prepared for planting
- Areas covered by the footprint of a building, silo, or other man made structure with walls and or roof.

9.1.4.b. **Sensitive Crops**

DO NOT APPLY this product when the wind is blowing toward immediately adjacent non-dicamba tolerant sensitive crops; this includes **NON-DICAMBA TOLERANT SOYBEAN AND COTTON.**

It is important for the applicator to be aware that wind direction may vary during the application. If wind direction shifts such that the wind is blowing toward adjacent non-dicamba tolerant sensitive crops, the applicator must cease the application.



Before making an application, consult a sensitive crop registry (such as FieldWatch); and survey adjacent fields and confirm the crops/areas surrounding the field prior to application. At a minimum, records must include the name of the sensitive crop registry and the date it was consulted and documentation of adjacent crops/areas and the date the survey was conducted.

Sensitive crops include, but are not limited to non-dicamba tolerant soybeans and cotton, tomatoes and other fruiting vegetables (EPA crop group 8), fruit trees, cucurbits (EPA crop group 9), grapes, beans, flowers, ornamentals, peas, potatoes, sunflower, tobacco, other broadleaf plants, and including plants in a greenhouse. Severe injury or destruction could occur if any contact between this product and these plants occurs.

If you have questions regarding sensitive crop registries contact Bayer at 1-844-RRXTEND prior to application.

9.1.5 Application Awareness

AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR.

The interaction of equipment and weather related factors must be monitored to maximize performance and on-target spray deposition. The applicator is responsible for considering all of these factors when making a spray decision. The applicator is responsible for compliance with state and local pesticide regulations, including any state or local pesticide drift regulations.

9.2 Ground Application (Banding)

When applying XtendiMax® With VaporGrip® Technology by banding, determine the amount of herbicide and water volume needed using the following formula:

$$\frac{\text{Bandwidth in inches}}{\text{Row width in inches}} \times \text{Broadcast rate per acre} = \text{Banding herbicide rate per acre}$$

$$\frac{\text{Bandwidth in inches}}{\text{Row width in inches}} \times \text{Broadcast volume per acre} = \text{Banding water volume per acre}$$

9.3 Ground Application (Broadcast)

Water Volume: Use a **minimum of 15 gallons** of spray solution per broadcast acre for optimal performance. Use 20 gallons per acre when treating dense or tall vegetation.

Application Equipment: Select nozzles (refer to section 9.1.1 Nozzle type of this product label) designed to produce minimal amounts of fine spray particles. Spray with nozzles as close to the weeds as practical for good weed coverage.

Using a hooded sprayer or other drift reduction technology in combination with approved nozzles may further reduce drift potential.

9.4 Ground Application (Wipers)

XtendiMax® With VaporGrip® Technology may be applied through wiper application equipment to control or suppress actively growing broadleaf weeds, brush and vines. Use a solution containing 1 part XtendiMax® With VaporGrip® Technology to 1 part water. Do not apply greater than 1 lb dicamba acid equivalent (1 quart of this product) per acre per application. Do not contact desirable vegetation with herbicide solution. Wiper application may be made to crops (including pastures) and non-cropland areas described in this label except for non-dicamba-tolerant cotton, sorghum, and non-dicamba-tolerant soybean.

9.5 Proper Spray System Equipment Cleanout

You must ensure that the spray system used to apply this product is clean before using this product.

Failure to properly clean the entire spray system can result in inadvertent contamination of the spray system. Small quantities of dicamba may cause injury to non-dicamba tolerant soybeans and other sensitive crops (see Section 9.1.4 of this label for more information).

Inadvertent contamination can also occur in equipment used for bulk product handling and mixing prior to use in the spray system. Care should be taken to reduce contamination not only in the spray system but in any equipment used to transfer or deliver product. For example, bulk handling and mixing equipment containing this product should be segregated when possible to reduce potential for cross-contamination. Consider using block and check valves to avoid backflow during transfer. Piping should be reviewed to ensure there not potential for product build-up. Dedicated nurse trucks and tender equipment should be used when possible.

Clean equipment immediately after using this product, using a triple rinse procedure as follows:

1. After spraying, drain the sprayer (including boom and lines) immediately. Do not allow the spray solution to remain in the spray boom lines overnight prior to flushing.
2. Flush tank, hoses, boom and nozzles with clean water. If equipped, open boom ends and flush.
3. Inspect and clean all strainers, screens and filters.
4. Prepare a cleaning solution with a commercial detergent or sprayer cleaner or ammonia according to the manufacturer's directions.
5. Take care to wash all parts of the tank, including the inside top surface. Start agitation in the sprayer and thoroughly recirculate the cleaning solution for at least 15 minutes. All visible deposits must be removed from the spraying system.
6. Flush hoses, spray lines and nozzles for at least 1 minute with the cleaning solution.
7. Remove nozzles, screens and strainers and clean separately in the cleaning solution after completing the above procedures.
8. Drain pump, filter and lines.
9. Rinse the complete spraying system with clean water.
10. Clean and wash off the outside of the entire sprayer and boom.
11. All rinse water must be disposed of in compliance with local, state, and federal guidelines.

10.0 ADDITIONAL RESTRICTIONS

Maximum Application Rates: The maximum application or use rates stated throughout this label are given in units of volume (fluid ounces or quarts) of this product per acre. However, the maximum allowed application rates apply to this product combined with the use of any and all other herbicides containing the active ingredients dicamba, whether applied separately or as a tank mixture, on a basis of total pounds of dicamba (acid equivalents) per acre. If more than one dicamba-containing product is applied to the same site within the same year, you must ensure that the total use of dicamba (pounds acid equivalents) does not exceed 2 pounds/A per year from all applications. See the INGREDIENTS section of this label for necessary product information.

Maximum seasonal use rate: Refer to Table 2. Crop-Specific Restrictions for crop-specific maximum seasonal use rates. Do not exceed 88 fluid ounces of XtendiMax® With VaporGrip® Technology (2 pounds acid equivalent) per acre, per year.

Preharvest Interval (PHI): Refer to the CROP-SPECIFIC INFORMATION section for preharvest intervals.

Restricted Entry Interval (REI): 24 hours

Crop Rotational Restrictions

No rotational cropping restrictions apply when rotating to Roundup Ready 2 Xtend® Soybeans, XtendFlex® Soybeans, or cotton seed with XtendFlex® Technology (including Bollgard® 3 XtendFlex® Cotton, Bollgard II® XtendFlex® Cotton, or XtendFlex® Cotton). For other crops the interval between application and planting rotational crop is given below. When counting days from the application of this product, do not count days when the ground is frozen. Planting at intervals less than specified below may result in crop injury. Moisture is essential for the degradation of this herbicide in soil. If dry weather prevails, use cultivation to allow herbicide contact with moist soil.

Planting/replanting restrictions at application rates of 33 fluid ounces of this product per acre per season or less: Follow the planting restrictions in the directions for use for Preplant application in the Crop Specific Information section of this label. For corn, cotton (except cotton seed with XtendFlex® Technology), sorghum, and soybean (except Roundup Ready 2 Xtend® Soybean and XtendFlex® Soybean), follow the planting restrictions in the directions for use for preplant application in **Section 11. Crop-Specific Information** of this label. Do not plant barley, oat, wheat, and other grass seedings for 15 days for every 11 fluid ounces of this product applied per acre east of the Mississippi River and 22 days for every 11 fluid ounces per acre applied west of the Mississippi River. No planting restrictions apply beyond 120 days after application of this product.

Planting/replanting restrictions at application rates of more than 33 fluid ounces and up to 88 fluid ounces of this product per acre per season: Wait a minimum of 120 days after application of this product before planting corn, sorghum and cotton (except cotton seed with XtendFlex® Technology) east of the Rocky Mountains and before planting all other crops (except Roundup Ready 2 Xtend® Soybean and XtendFlex® Soybean) grown in areas receiving 30 inches or more rainfall annually. Wait a minimum of 180 days before planting crops in areas with less than 30 inches of annual rainfall. Wait a minimum of 30 days for every 22 fluid ounces of this product applied per acre before planting barley, oat, wheat, and other grass seedings east of the Mississippi River and 45 days for every 22 fluid ounces of this product applied per acre west of the Mississippi River.

Table 2. Crop-Specific Restrictions[1]

Crop	Maximum Rate Per Acre Per Application (fl oz)	Maximum Rate Per Acre Per Season (fl oz)	Livestock Grazing or Feeding
Asparagus	22	22	Yes
Barley; Fall Spring	11 11	16.5 15	Yes
Conservation Reserve Program (CRP)	44	88	Yes
Corn	22	33	Yes[2]
Cotton	11	11	Yes

Cotton with XtendFlex Technology	44	88	Yes
Fallow Ground	44	88	Yes
Grass grown for seed	44	88	Yes
Oats	5.5	5.5	Yes
Pastureland	44	44	Yes
Proso Millet	5.5	5.5	Yes
Small grains grown for grass, forage, fodder, hay and/or pasture	22	22	Yes
Sorghum	11	22	Yes
Soybean	44	44	Yes
Roundup Ready 2 Xtend Soybean and XtendFlex Soybean	44	88	Yes
Sugarcane	44	88	Yes
Triticale	5.5	5.5	Yes
Sod farms and farmstead turf	44	44	Yes
Wheat	11	22	Yes
[1]Refer to section **11. CROP-SPECIFIC INFORMATION** and section **12. CROPS WITH XTEND TECHNOLOGY** for more details. [2]Once the crop reaches the ensilage (milk) stage or later in maturity			

11.0 CROP-SPECIFIC INFORMATION

Read Sections: 8.0 for Tank Mixing Instructions and 9.1.4 for Buffer Requirements and Sensitive Crops for information on tank mixing, buffer requirements, and sensitive crops.

11.1 Asparagus

Apply XtendiMax® With VaporGrip® Technology to emerged and actively growing weeds in 40 - 60 gallons of diluted spray per treated acre immediately after cutting the field, but at least 24 hours before the next cutting. Multiple applications may be made per growing season.

If spray contacts emerged spears, crooking (twisting) of some spears may result. If such crooking occurs, discard affected spears.

Rates: Apply 11-22 fluid ounces of XtendiMax® With VaporGrip® Technology to control annual sowthistle, black mustard, Canada and Russian thistle, and redroot pigweed (carelessweed).

Apply 22 fluid ounces of XtendiMax® With VaporGrip® Technology to control common chickweed, field bindweed, nettleleaf goosefoot, and wild radish. Up to 2 applications may be made per growing season. Do not exceed a total of 22 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre, per crop year.

Do not harvest prior to 24 hours after treatment.

[Optional: Do not use in the Coachella Valley of California]

11.2 Between Crop Applications

Preplant Directions (Postharvest, Fallow, Crop Stubble, Set-Aside) for Broadleaf Weed Control:

XtendiMax® With VaporGrip® Technology can be applied either postharvest in the fall, spring, or summer during the fallow period or to crop stubble/set-aside acres. Apply XtendiMax® With VaporGrip® Technology as a broadcast or spot treatment to emerged and actively growing weeds after crop harvest (postharvest) and before a killing frost or in the fallow cropland or crop stubble the following spring or summer.

See the "Crop Rotational Restrictions" in Section 10 of this label for the recommended interval between application and planting to prevent crop injury.

Rates and Timings:

Apply 5.5 – 44 fluid ounces of XtendiMax® With VaporGrip® Technology per acre. Refer to Table 1 to determine use rates for specific targeted weed species. For best performance, apply XtendiMax® With VaporGrip® Technology when annual weeds are less than 4 inches tall, when biennial weeds are in the rosette stage and to perennial weed regrowth in late summer or fall following a mowing or tillage treatment. The most effective control of upright perennial broadleaf weeds such as Canada thistle and Jerusalem artichoke occurs if XtendiMax® With VaporGrip® Technology is applied when the majority of weeds have at least 4 – 6 inches of regrowth or for weeds such as field bindweed and hedge bindweed that are in or beyond the full bloom stage.

Avoid disturbing treated areas following application. Treatments may not kill weeds that develop from seed or underground plant parts such as rhizomes or bulblets, after the effective period for XtendiMax® With VaporGrip® Technology. For seedling control, a follow-up program or other cultural practices could be instituted. For small grain in-crop uses of XtendiMax® With VaporGrip® Technology, refer to the small grain section for details.

11.3 Conservation Reserve Program (CRP)

XtendiMax® With VaporGrip® Technology is recommended for use on both newly seeded and established grasses grown in Conservation Reserve or federal Set-Aside Programs. Treatments of XtendiMax® With VaporGrip® Technology will injure or may kill alfalfa, clovers, lespedeza, wild winter peas, vetch, and other legumes.

Newly Seeded Areas

XtendiMax® With VaporGrip® Technology may be applied either preplant or postemergence to newly seeded grasses or small grains such as barley, oats, rye, sudanqrass, wheat, or other grain species grown as a cover crop. Postemergence applications may be made after seedling grasses exceed the 3-leaf stage. Rates of XtendiMax® With VaporGrip® Technology greater than 22 fluid ounces per treated acre may severely injure newly seeded grasses.

Preplant applications may injure new seedlings if the interval between application and grass planting is less than 45 days per 22 fluid ounces of XtendiMax® With VaporGrip® Technology applied per treated acre west of the Mississippi River or 20 days per 22 fluid ounces applied east of the Mississippi River.

Established Grass Stands

Established grass stands are perennial grasses planted one or more seasons prior to treatment. Certain species (bentgrass, carpetgrass, smooth brome, buffalograss, or St. Augustinegrass) may be injured when treated with more than 22 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre.

When applied at recommended rates, XtendiMax® With VaporGrip® Technology will control many annual and biennial weeds and provide control or suppression of many perennial weeds.

Rates and Timings

Apply 5.5 - 44 fluid ounces of XtendiMax® With VaporGrip® Technology per acre. Refer to **Table 1** for rates based on target weed species. Retreatments may be made as needed; however, do not exceed a total of 88 fluid ounces (4 pints) of XtendiMax® With VaporGrip® Technology per acre per year.

11.4 Corn (Field, Pop, Seed, And Silage)

Direct contact of XtendiMax® With VaporGrip® Technology with corn seed must be avoided. If corn seeds are less than 1.5 inches below the surface, delay application until corn has emerged.

Applications of XtendiMax® With VaporGrip® Technology to corn during periods of rapid growth may result in temporary leaning. Corn will usually become erect within 3 to 7 days. Cultivation should be delayed until after corn is growing normally to avoid breakage.

Corn may be harvested or grazed for feed once the crop has reached the ensilage (milk) stage or later in maturity.

Up to 2 applications of XtendiMax® With VaporGrip® Technology may be made during a growing season. Sequential applications must be separated by 2 weeks or more.

Do not apply XtendiMax® With VaporGrip® Technology to seed corn or popcorn without first verifying with your local seed corn company (supplier) the selectivity of XtendiMax® With VaporGrip® Technology on your inbred line or variety of popcorn. This precaution will help avoid potential injury of sensitive varieties.

Avoid using crop oil concentrates after crop emergence as crop injury may result. Use crop oil concentrates only in dry conditions when corn is less than 5 inches tall when applying XtendiMax® With VaporGrip® Technology.

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Use of sprayable fluid fertilizer as the carrier is not recommended for applications of XtendiMax® With VaporGrip® Technology made after corn emergence.

XtendiMax® With VaporGrip® Technology is not registered for use on sweet corn.

Preplant and Preemergence Application in No-Tillage Corn:

Rates: Apply 22 fluid ounces of XtendiMax® With VaporGrip® Technology per acre on medium- or fine-textured soils containing 2.5% or greater organic matter. Use 11 fluid ounces per acre on coarse soils (sand, loamy sand, and sandy loam) or medium- and fine-textured soils with less than 2.5% organic matter.

Timing: XtendiMax® With VaporGrip® Technology can be applied to emerging weeds before, during, or after planting a corn crop. When planting into a legume sod (e.g., alfalfa or clover), apply XtendiMax® With VaporGrip® Technology after 4 – 6 inches of regrowth has occurred

Preemergence Application in Conventional or Reduced Tillage Corn:

Rates: Apply 22 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre on medium- or fine-textured soils containing 2.5% organic matter or more. Do not apply to coarse textured soils (sand, loamy sand, or sandy loam) of any soil with less than 2.5% organic matter until after corn emergence (See Early Postemergence uses below).

Timing: XtendiMax® With VaporGrip® Technology may be applied after planting and prior to corn emergence. Pre-emergence application of XtendiMax® With VaporGrip® Technology does not require mechanical incorporation to become active. A shallow mechanical incorporation is recommended if application is not followed by adequate rainfall or sprinkler irrigation. Avoid tillage equipment (e.g., drags, harrows) which concentrates treated soil over seed furrow as seed damage could result.

Preemergence control of cocklebur, jimsonweed, and velvetleaf may be reduced if conditions such as low temperature or lack of soil moisture cause delayed or deep germination of weeds.

Early Postemergence Application in All Tillage Systems:

Rates: Apply 22 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre. Reduce the rate to 11 fluid ounces per treated acre if corn is growing on coarse textured soils (sand, loamy sand, and sandy loam).

Timing: Apply between corn emergence and the 5-leaf stage or 8 inches tall, whichever occurs first. Refer to Late Postemergence Applications if the sixth true leaf is emerging from whorl or corn is greater than 8 inches tall.

Late Postemergence Application:

Rate: Apply 11 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre.

Timing: Apply XtendiMax® With VaporGrip® Technology from 8 - 36 inch tall corn or 15 days before tassel emergence, whichever comes first. For best performance, apply when weeds are less than 3 inches tall.

Apply directed spray when corn leaves prevent proper spray.

11.5 Cotton

For directions for use with crops with Xtend Technology see the "CROPS WITH XTEND TECHNOLOGY" section of this label.

Preplant Application:

Apply up to 11 fluid ounces of XtendiMax® With VaporGrip® Technology per acre to control emerged broadleaf weeds prior to planting cotton in conventional or conservation tillage systems.

For best performance, apply XtendiMax® With VaporGrip® Technology when weeds are in the 2 - 4 leaf stage and rosettes are less than 2 inches across.

Following application of XtendiMax® With VaporGrip® Technology and a minimum accumulation of 1 inch of rainfall or overhead irrigation, allow a minimum of 21 days between treatment and planting per application of 11 fluid ounces per acre or less. This plant back interval must be observed prior to planting cotton.

Do not apply preplant to cotton west of the Rockies.

Do not make XtendiMax® With VaporGrip® Technology preplant applications to cotton in geographic areas with average annual rainfall less than 25 inches.

If applying a spring preplant treatment following application of a fall preplant (postharvest) treatment, then the combination of both treatments may not exceed 2 pounds acid equivalent per acre.

11.6 Grass Grown For Seed

Apply 11 - 22 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre on seedling grass after the crop reaches the 3 -5 leaf stage. Apply up to 44 fluid ounces of XtendiMax® With VaporGrip® Technology on well-established perennial grass. For best performance, apply XtendiMax® With VaporGrip® Technology when weeds are in the 2 - 4 leaf stage and rosettes are less than 2 inches across. Use the higher level of listed rate ranges when treating more mature weeds or dense vegetative growth.

To suppress annual grasses such as brome (downy and ripgut), rattail fescue, and windgrass, apply up to 44 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre in the fall or late summer after harvest and burning of established grass seed crops. Applications should be made immediately following the first irrigation when the soil is moist and before weeds have more than 2 leaves.

Do not apply XtendiMax® With VaporGrip® Technology after the grass seed crop begins to joint.

Refer to the Pasture, Hay, Rangeland, and General Farmstead section for grazing and feeding restrictions.

11.7 Proso Millet

For use only within Colorado, Nebraska, North Dakota, South Dakota, [Optional: **and Wyoming].**

XtendiMax® With VaporGrip® Technology combined with an appropriate tank-mix partner will provide control or suppression of the annual broadleaf weeds listed in **Section 13.**

11.8 Pasture, Hay, Rangeland, And General Farmstead (Noncropland)

XtendiMax® With VaporGrip® Technology is recommended for use on pasture, hay, rangeland, and general farmstead (non-cropland) (including fencerows and non-irrigation ditch banks) for control or suppression of broadleaf weed and brush species listed in Section 12.

XtendiMax® With VaporGrip® Technology may also be applied to non-cropland areas to control broadleaf weeds in noxious weed control programs, districts, or areas including broadcast or spot treatment of roadsides and highways, utilities, railroad, and pipeline rights-of-way. Noxious weeds must be recognized at the state level, but programs may be administered at state, county, or other level.

XtendiMax® With VaporGrip® Technology uses described in this section also pertain to grasses and small grains (forage sorghum, rye, sudangrass, or wheat) grown for grass, forage, fodder, hay and/or pasture use only. Grasses and small grains not grown for grass, forage, fodder, hay and/or pasture must comply with crop-specific uses in this label. Some perennial weeds may be controlled with lower rates of XtendiMax® With VaporGrip® Technology (refer to **Table 1**).

Rates and Timings

Refer to **Table 1** for rate selection based on targeted weed or brush species.

Rates above 44 fluid ounces of XtendiMax® With VaporGrip® Technology per acre are for spot treatments only. Spot treatment is defined as no more than a total of 1000 square feet of treated area per acre. Do not broadcast apply more than 44 fluid ounces per acre.

Retreatments may be made as needed; however, do not exceed a total of 44 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre during a growing season.

Grass grown for hay requires a minimum of 7-days between treatment and harvest.

Crop-Specific Restrictions

Do not apply more than 22 fluid ounces of XtendiMax® With VaporGrip® Technology per acre to small grains grown for pasture.

Newly seeded areas may be severely injured if more than 22 fluid ounces of XtendiMax® With VaporGrip® Technology is applied per acre.

Established grass crops growing under stress can exhibit various injury symptoms that may be more pronounced if herbicides are applied. Bentgrass, carpetgrass, buffalograss, and St. Augustin grass may be injured if more than 22 fluid ounces of XtendiMax® With VaporGrip® Technology is applied per acre. Usually colonial bent grasses are more tolerant than creeping types. Velvet grasses are most easily injured. Treatments will kill or injure alfalfa, clovers, lespedeza, wild winter peas, vetch, and other legumes.

Table 3 lists the timing restrictions for grazing or harvesting hay from treated fields. There are no grazing restrictions for animals other than lactating dairy animals.

Table 3. Timing Restrictions for Lactating Dairy Animals Following Treatment

XtendiMax® With VaporGrip® Technology Rate per Treated Acre (fluid ounces)	Days Before Grazing (days)	Days Before Hay Harvest (days)
Up to 22	7	37
Up to 44	21	51

- **Spot Treatments:** XtendiMax® With VaporGrip® Technology may be applied to individual clumps or small areas of undesirable vegetation using handgun or similar types of application equipment. Apply diluted sprays to allow complete wetting (up to runoff) of foliage and stems.

Cut Surface Treatments:

XtendiMax® With VaporGrip® Technology may be applied as a cut surface treatment for control of unwanted trees and prevention of sprouts of cut trees.

Rate: Mix 1 part XtendiMax® With VaporGrip® Technology with 1 - 3 parts water to create the application solution. Use the lower dilution rate when treating difficult-to-control species.

- **For Frill or Girdle Treatments**: Make a continuous cut or a series of overlapping cuts using an axe to girdle tree trunk. Spray or paint the cut surface with the solution.
- **For Stump Treatments:** Spray or paint freshly cut surface with the water mix. The area adjacent to the bark should be thoroughly wet.

Applications For Control of Dormant Multiflora Rose:

XtendiMax® With VaporGrip® Technology can be applied when plants are dormant as an undiluted spot treatment directly to the soil or as a Lo-Oil basal bark treatment using an oil-water emulsion solution.

- **Spot treatments:** Spot treatment applications of XtendiMax® With VaporGrip® Technology should be applied directly to the soil as close as possible to the root crown but within 6 - 8 inches of the crown. On sloping terrain, apply XtendiMax® With VaporGrip® Technology to the uphill side of the crown. Do not apply when snow or water prevents applying XtendiMax® With VaporGrip® Technology directly to the soil. The use rate of XtendiMax® With VaporGrip® Technology depends on the canopy diameter of the multiflora rose.

  Examples: Use 0.34, 1.38, or 3.23 fluid ounces of XtendiMax® With VaporGrip® Technology respectively, for 5, 10, or 15 feet canopy diameters.

- **Lo-Oil basal bark treatments:** For Lo-Oil basal bark treatments, apply XtendiMax® With VaporGrip® Technology to the basal stem region from the ground line to a height of 12 - 18 inches. Spray until runoff, with special emphasis on covering the root crown. For best results, apply XtendiMax® With VaporGrip® Technology when plants are dormant. Do not apply after bud break or when plants are showing signs of active growth. Do not apply when snow or water prevents applying XtendiMax® With VaporGrip® Technology to the ground line.

  To prepare approximately 2 gallons of a Lo-Oil spray solution:

  1) Combine 1.5 gallons of water, 1 ounce of emulsifier, 22 fluid ounces of XtendiMax® With VaporGrip® Technology, and 2.5 pints of No. 2 diesel fuel.
  2) Adjust the amounts of materials used proportionately to the amount of final spray solution desired.

  Do not exceed 8 gallons of spray solution mix applied per acre, per year.

11.9 SMALL GRAINS

11.9.1 Small Grains Not Underseeded To Legumes (fall- and spring-seeded barley, oat, triticale and wheat)

Refer to the specific crop sections below for use rates. When treating difficult to control weeds such as kochia, wild buckwheat, cow cockle, prostrate knotweed, Russian thistle, and prickly lettuce or when dense vegetative growth occurs, use the 4.12 – 5.5 fluid ounces of XtendiMax® With VaporGrip® Technology per acre.

Timings: Apply XtendiMax® With VaporGrip® Technology before, during, or after planting small grains. See specific small grain crop uses below for maximum crop stage. For best performance, apply XtendiMax® With VaporGrip® Technology when weeds are in the 2 - 3 leaf stage and rosettes are less than 2 inches across. Applying XtendiMax® With VaporGrip® Technology to small grains during periods of rapid growth may result in crop leaning. This condition is temporary and will not reduce crop yields.

Restrictions for small grain areas that are grazed or cut for hay are indicated in **Table 3** in Pasture, Hay, Rangeland, and General Farmstead section of this label.

11.9.2 Small Grains: Barley (fall- and spring-seeded)

Early season applications:

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Apply 2.75 – 5.5 fluid ounces of XtendiMax® With VaporGrip® Technology to fall-seeded barley prior to the jointing stage. Apply 2.75 – 4.12 fluid ounces of XtendiMax® With VaporGrip® Technology before spring-seeded barley exceeds the 4-leaf stage.

Note: For spring barley varieties that are seeded during the winter months or later, follow the rates and timings given for spring-seeded barley.

Preharvest applications:

XtendiMax® With VaporGrip® Technology can be used to control weeds that may interfere with harvest of fall and spring-seeded barley. Apply 11 fluid ounces of XtendiMax® With VaporGrip® Technology per acre as a broadcast or spot treatment to annual broadleaf weeds when barley is in the hard dough stage and the green color is gone from the nodes (joints) of the stern. Best results will be obtained if application can be made when weeds are actively growing, but before weeds canopy.

Allow a minimum of 7 days between treatment and harvest. Do not use preharvest-treated barley for seed unless a germination test is performed on the seed with an acceptable result of 95% germination or better.

[Optional: Do not make preharvest applications in California.]

11.9.3 Small Grains: Oats (fall- and spring-seeded)

Early season applications:

Apply 2.75 – 5.5 fluid ounces of XtendiMax® With VaporGrip® Technology per acre to fall-seeded oat prior to the jointing stage. Apply 2.75 – 5.5 fluid ounces of XtendiMax® With VaporGrip® Technology before spring-seeded oat exceed the 5-leaf stage.

Do not tank mix XtendiMax® With VaporGrip® Technology with 2,4-D in oat.

Allow a minimum of 7 days between treatment and harvest.

11.9.4 Small Grains: Triticale (fall- and spring-seeded)

Early season applications:

Apply 2.75 – 5.5 fluid ounces of XtendiMax® With VaporGrip® Technology to triticale.

Early season applications to fall-seeded triticale must be made prior to the jointing stage.

Early season applications to spring-seeded triticale must be made before triticale reaches the 6-leaf stage.

11.9.5 Small Grains: Wheat (fall- and spring-seeded)

Early Season Applications:

Apply 2.75 – 5.5 fluid ounces of XtendiMax® With VaporGrip® Technology to wheat unless using one of the fall-seeded wheat specific programs below.

Early season applications to fall-seeded wheat must be made prior to the jointing stage.

Early season applications to spring-seeded wheat must be made before wheat exceeds the 6-leaf stage.

Early developing wheat varieties such as TAM 107, Madison, or Wakefield must receive application between early tillering and the jointing stage. Care should be taken in staging these varieties to be certain that the application occurs prior to the jointing stage.

Specific use programs for fall-seeded wheat only:

[Optional: XtendiMax® With VaporGrip® Technology may be used at 8.25 fluid ounces on fall-seeded wheat in Western Oregon as a spring application only.] In Colorado, Kansas, New Mexico, Oklahoma, and Texas, up to 11 fluid ounces of XtendiMax® With VaporGrip® Technology may be applied on fall-seeded wheat after it exceeds the 3-leaf stage for suppression of perennial weeds, such as field bindweed. Applications may be made in the fall following a frost but before a killing freeze.

Preharvest applications:

XtendiMax® With VaporGrip® Technology can be used to control weeds that may interfere with harvest of wheat. Apply 11 fluid ounces XtendiMax® With VaporGrip® Technology per acre as a broadcast or spot treatment to annual broadleaf weeds when wheat is in the hard dough stage and the green color is gone from the nodes (joints) of the stem. Best results will be obtained if application can be made when weeds are actively growing but before weeds canopy.

Allow a minimum of 7 days between treatment and harvest. Do not use preharvest-treated wheat for seed unless a germination test is performed on the seed with an acceptable result of 95% germination or better.

[Optional: Do not make preharvest applications in California.]

11.10 Sorghum

XtendiMax® With VaporGrip® Technology may be applied preplant, postemergence, or preharvest in sorghum to control many annual broadleaf weeds and to reduce competition from established perennial broadleaf weeds, as well as control their seedlings.

Do not graze or feed treated sorghum forage or silage prior to mature grain stage. If sorghum is grown for pasture or hay, refer to Pasture, Hay, Rangeland, and General Farmstead section of this label for specific grazing and feeding restrictions.

Do not apply XtendiMax® With VaporGrip® Technology to sorghum grown for seed production.

Preplant Application:

Up to 11 fluid ounces of XtendiMax® With VaporGrip® Technology may be applied per acre if applied at least 15 days before sorghum planting.

Postemergence Application:

Up to 11 fluid ounces of XtendiMax® With VaporGrip® Technology per acre may be applied after sorghum is in the spike stage (all sorghum emerged) but before sorghum is 15 inches tall. For best performance, apply XtendiMax® With VaporGrip® Technology when the sorghum crop is in the 3 - 5 leaf stage and weeds are small (less than 3 inches tall). Use drop pipes (drop nozzles) if sorghum is taller than 8 inches. Keep the spray off the sorghum leaves and out of the whorl to reduce the likelihood of crop injury and to improve spray coverage of weed foliage. Applying XtendiMax® With VaporGrip® Technology to sorghum during periods of rapid growth may result in temporary leaning of plants or rolling of leaves. These effects are usually outgrown within 10 - 14 days. Delay harvest until 30 days after a preharvest treatment.

Preharvest uses in Texas and Oklahoma only: Up to 11 fluid ounces of XtendiMax® With VaporGrip® Technology per acre may be applied for weed suppression any time after the sorghum has reached the soft dough stage. An agriculturally approved surfactant may be used to improve performance (read Section 8.0 for tank mixing instructions). Delay harvest until 30 days after a preharvest treatment.

Split Application:

XtendiMax® With VaporGrip® Technology may be applied in split applications: preplant followed by postemergence or preharvest; or postemergence followed by preharvest. Do not exceed 11 fluid ounces per acre, per application or a total of 22 ounces per acre, per season.

11.11 Soybean

For directions for use with crops with Xtend Technology see the "CROPS WITH XTEND TECHNOLOGY" section of this label.

Preplant Applications:

Apply 5.5 -22 fluid ounces of XtendiMax® With VaporGrip® Technology per acre to control emerged broadleaf weeds prior to planting soybeans. Do not exceed 22 fluid ounces of XtendiMax® With VaporGrip® Technology per acre in a spring application prior to planting soybeans.

Following application of XtendiMax® With VaporGrip® Technology and a minimum accumulation of 1 inch rainfall or overhead irrigation, allow a minimum of 14 days between treatment and planting for applications of 11 fluid ounces per acre or less, and allow a minimum of 28 days between treatment and planting for applications of 22 fluid ounces per acre. These plant back intervals must be observed prior to planting soybeans or crop injury may occur.

Do not make XtendiMax® With VaporGrip® Technology preplant applications to soybeans in geographic areas with average annual rainfall less than 25 inches.

Preharvest Applications:

XtendiMax® With VaporGrip® Technology can be used to control many annual and perennial broadleaf weeds and control or suppress many biennial and perennial broadleaf weeds in soybean prior to harvest (refer to **Section 10**). Apply 11 - 44 fluid ounces of XtendiMax® With VaporGrip® Technology per acre as a broadcast or spot treatment to emerged and actively growing weeds after soybean pods have reached mature brown color and at least 75% leaf drop has occurred.

Do not harvest soybeans until 7 days after application.

Treatments may not kill weeds that develop from seed or underground plant parts, such as rhizomes or bulblets, after the effective period for XtendiMax® With VaporGrip® Technology. For seedling control, a follow-up program or other cultural practice could be instituted.

Do not use preharvest-treated soybean for seed unless a germination test is performed on the seed with an acceptable result of 95% germination or better.

Do not feed soybean fodder or hay following a preharvest application of XtendiMax® With VaporGrip® Technology.

[Optional: Do not make preharvest applications in California.]

11.12 Sugarcane

Apply XtendiMax® With VaporGrip® Technology for control of annual, biennial, or perennial broadleaf weeds listed in Section 11. Apply 11 - 33 fluid ounces of XtendiMax® With VaporGrip® Technology per acre for control of annual weeds, 22 - 44 fluid ounces for control of biennial weeds, and 44 fluid ounces for control or suppression of perennial weeds.

Use the higher level of listed rate ranges when treating dense vegetative growth.

A single retreatment may be made as needed, however, do not exceed a total of 88 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre during a growing season.

Timing: XtendiMax® With VaporGrip® Technology may be applied to sugarcane any time after weeds have emerged, but before the close-in stage of sugarcane. Applications of 44 fluid ounces of XtendiMax®

With VaporGrip® Technology per acre made over the top of actively growing sugarcane may result in crop injury.

When possible, direct the spray beneath the sugarcane canopy to minimize the likelihood of crop injury. Using directed sprays will also help maximize the spray coverage of weed foliage.

Allow a minimum of 87 days between treatment and harvest.

11.13 Farmstead Turf (noncropland) and Sod Farms

Do not use on residential sites.

For use in general farmstead (noncropland) and sod farms, apply 4.12 – 44 fluid ounces of XtendiMax® With VaporGrip® Technology per acre to control or suppress growth of many annual, biennial, and some perennial broadleaf weeds commonly found in turf. XtendiMax® With VaporGrip® Technology will also suppress many other listed perennial broadleaf weeds and woody brush and vine species. Refer to Table 1 for rate recommendations based on targeted weed or brush species and growth stage.

Repeat treatments may be made as needed; however, do not exceed 44 fluid ounces of XtendiMax® With VaporGrip® Technology per acre, per growing season.

Apply 30 - 200 gallons of diluted spray per treated acre (3 - 17 quarts of water per 1,000 square feet), depending on density or height of weeds treated and on the type of equipment used.

To avoid injury to newly seeded grasses, delay application of XtendiMax® With VaporGrip® Technology until after the second mowing. Furthermore, applying more than 16 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre may cause noticeable stunting or discoloration of sensitive grass species such as bentgrass, carpetgrass, buffalograss, and St. Augustinegrass.

In areas where roots of sensitive plants extend, do not apply more than 5.5 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre on coarse-textured (sandy-type) soils, or in excess of 8 fluid ounces per treated acre on fine-textured soils. Do not make repeat applications in these areas for 30 days and until previous applications of XtendiMax® With VaporGrip® Technology have been activated in the soil by rain or irrigation.

12.0 CROPS WITH XTEND® TECHNOLOGY

COTTON WITH XTENDFLEX® TECHNOLOGY (INCLUDING BOLLGARD II® XTENDFLEX® COTTON, BOLLGARD® 3 XTENDFLEX® COTTON, OR XTENDFLEX® COTTON), ROUNDUP READY 2 XTEND® SOYBEAN, AND XTENDFLEX® SOYBEAN CONTAIN A PATENTED GENE THAT PROVIDES TOLERANCE TO DICAMBA, THE ACTIVE INGREDIENT IN THIS PRODUCT. THIS PRODUCT WILL CAUSE SEVERE CROP INJURY OR DESTRUCTION AND YIELD LOSS IF APPLIED TO COTTON AND SOYBEAN THAT ARE NOT DICAMBA TOLERANT, INCLUDING COTTON AND SOYBEAN WITH A TRAIT ENGINEERED TO CONFER TOLERANCE TO AUXIN HERBICIDES OTHER THAN DICAMBA. FOLLOW THE REQUIREMENTS SET FORTH HEREIN TO PREVENT SEVERE CROP INJURY OR DESTRUCTION AND YIELD LOSS. CONTACT WITH FOLIAGE, GREEN STEMS, OR FRUIT OF CROPS, OR ANY DESIRABLE PLANTS THAT DO NOT CONTAIN A DICAMBA TOLERANCE GENE OR ARE NOT NATURALLY TOLERANT TO DICAMBA, COULD RESULT IN SEVERE PLANT INJURY OR DESTRUCTION.

Information on cotton with XtendFlex® Technology, Roundup Ready 2 Xtend® Soybean, and XtendFlex® Soybean can be obtained from your seed supplier or Monsanto representative. Cotton with XtendFlex® Technology, Roundup Ready 2 Xtend® Soybean, and XtendFlex® Soybean must be purchased from an authorized licensed seed supplier.

Note: Cotton with XtendFlex® Technology, Roundup Ready 2 Xtend® Soybean, and XtendFlex® Soybean and methods of controlling weeds and applying dicamba in a Cotton with XtendFlex® Technology, Roundup Ready 2 Xtend® Soybean, and XtendFlex® Soybean crop are protected under U.S. patent law. No license to use Cotton with XtendFlex® Technology, Roundup Ready 2 Xtend® Soybean, and XtendFlex® Soybean is granted or implied with the purchase of this herbicide product. Cotton with XtendFlex® Technology, Roundup Ready 2 Xtend® Soybean, and XtendFlex® Soybean are owned by Monsanto and a license must be obtained from Monsanto before using it. Contact your Authorized Monsanto Retailer for information on obtaining a license to Cotton with XtendFlex® Technology, Roundup Ready 2 Xtend® Soybean, and XtendFlex® Soybean.

12.1 Cotton with XtendFlex® Technology

DO NOT combine these instructions with other instructions in the "COTTON" Section of **this** label for use over crops that do not contain the dicamba tolerance trait.

TYPES OF APPLICATIONS: Burndown/Early Preplant; Preplant; At-Planting; Preemergence; Postemergence (In-crop)

USE INSTRUCTIONS
Apply this product in a minimum of 15 gallons of spray solution per acre as a broadcast application. For best performance, control weeds early when they are less than 4 inches. Timely application will improve control and reduce weed competition. Refer to the following table for maximum application rates of this product with cotton with XtendFlex® Technology.

Maximum Application Rates	
Combined total per year for all applications	88 fluid ounces per acre (2.0 lb. a.e. dicamba per acre)
Total of all Burndown/Early Preplant, Preplant, At-Planting, and Preemergence applications	44 fluid ounces per acre (1.0 lb. a.e. dicamba per acre)
Total of all in-crop applications up to mid-bloom stage or no more than 60 days after planting, whichever occurs first	44 fluid ounces per acre (1.0 lb. a.e. dicamba per acre)
Maximum In-crop, single application	22 fluid ounces per acre (0.5 lb. a.e. dicamba per acre)

a.e. – acid equivalent

Refer to Table 1 for application rates for weed type and growth stage controlled by this product. Maximum in-crop application rate should be used when treating tough to control weeds, dense vegetative growth or weeds with a well-established root system.

Burndown/Early Preplant, Preplant, At-Planting, Preemergence
USE INSTRUCTIONS: This product may be used to control broadleaf weeds and may be applied before, during or immediately after planting cotton with XtendFlex® Technology. Refer to the "WEEDS CONTROLLED" section of this label for XtendiMax® With VaporGrip® Technology for specific weeds controlled.

RESTRICTIONS:

- The maximum combined quantity of this product that may be applied for all burndown/early preplant, preplant, at-planting, and preemergence applications is 44 fluid ounces (1.0 lb a.e. dicamba) per acre per season.

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- The maximum application rate for a single, burndown/early preplant, preplant, at-planting, or preemergence application must not exceed 44 fluid ounces (1.0 lb a.e. dicamba) per acre.
- Do not apply less than 22 fluid ounces (0.5 lb a.e. dicamba) per acre.

Postemergence (In-crop)
USE INSTRUCTIONS: This product may be used to control broadleaf weeds in cotton with XtendFlex® Technology. In-crop applications of this product can be made up to mid-bloom stage or no more than 60 days after planting, whichever occurs first.

The maximum and minimum rate for any single, in-crop application is 22 fluid ounces (0.5 lb a.e. dicamba) per acre. Using the appropriate application rate may reduce the selection for resistant weeds. For best performance, control weeds early when they are less than 4 inches. To the extent permitted by applicable law, Monsanto Company does not warrant product performance of applications to labeled weeds greater than 4 inches in height. Sequential applications of this product may be necessary to control new flushes of weeds or on tough-to-control weeds. Allow at least 7 days between applications.

Postemergence applications of this product mixed with adjuvants may cause a leaf response to cotton with XtendFlex® Technology. The symptoms usually appear as necrotic spots on fully expanded leaves. EC-based products that are tank mixed with products containing dicamba may increase the severity of the leaf damage.

RESTRICTIONS:
- The combined total applied in-crop up to mid-bloom stage or no more than 60 days after planting, whichever occurs first, must not exceed 44 fluid ounces (1.0 lb a.e. dicamba) per acre and a maximum of two in-crop applications.
- The maximum single, in-crop application rate must not exceed 22 fluid ounces (0.5 lb a.e. dicamba).
- The combined total per year for all applications must not exceed 88 fluid ounces (2.0 lb a.e. dicamba) per acre. For example, if a preplant application of 44 fluid ounces (1.0 lb a.e. dicamba) per acre was made, then the combined total in-crop applications must not exceed 44 fluid ounces (1.0 lb a.e. dicamba) per acre.

12.2 Roundup Ready 2 Xtend® Soybean and XtendFlex® Soybean

DO NOT combine these instructions with other instructions in the "SOYBEAN" Section of **this** label for use over crops that do not contain the dicamba tolerance trait.

TYPES OF APPLICATIONS: Burndown/Early Preplant; Preplant; At-Planting; Preemergence; Postemergence (In-crop); Lay-By

USE INSTRUCTIONS
Apply this product in a minimum of 15 gallons of spray solution per acre as a broadcast application. For best performance, control weeds early when they are less than 4 inches. Timely application will improve control and reduce weed competition. Refer to the following table for maximum application rates of this product with Roundup Ready 2 Xtend® Soybean and XtendFlex® Soybean.

Maximum Application Rates	
Combined total per year for all applications	88 fluid ounces per acre (2.0 lb. a.e. dicamba per acre)
Total of all Burndown/Early Preplant, Preplant, At-Planting, and Preemergence applications	44 fluid ounces per acre (1.0 lb. a.e. dicamba per acre)

Total of all In-crop applications from emergence prior to beginning bloom (R1 stage soybeans) or no more than 45 days after planting, whichever occurs first	44 fluid ounces per acre (1.0 lb. a.e. dicamba per acre)
Maximum In-crop, single application	22 fluid ounces per acre (0.5 lb. a.e. dicamba per acre)

a.e. – acid equivalent

Refer to Table 1 for application rates for weed type and growth stage controlled by this product. Maximum in-crop application rate should be used when treating tough to control weeds, dense vegetative growth or weeds with a well-established root system.

Burndown/Early Preplant, Preplant, At-Planting, Preemergence
USE INSTRUCTIONS: This product may be used to control broadleaf weeds and may be applied before, during or immediately after planting Roundup Ready 2 Xtend® Soybean and XtendFlex® Soybean. Refer to the "WEEDS CONTROLLED" section of this label for specific weeds controlled.

RESTRICTIONS:
- The maximum combined quantity of this product that may be applied for all burndown/early preplant, preplant, at-planting, and preemergence applications is 44 fluid ounces (1.0 lb a.e. dicamba) per acre per season.
- The maximum application rate for a single, burndown/early preplant, preplant, at-planting, or preemergence application must not exceed 44 fluid ounces (1.0 lb a.e. dicamba) per acre.
- Do not apply less than 22 fluid ounces (0.5 lb a.e. dicamba) per acre.

Postemergence (In-crop)
USE INSTRUCTIONS: This product may be used to control broadleaf weeds in Roundup Ready 2 Xtend® Soybean and XtendFlex® Soybean. In-crop applications of this product can be made prior to beginning bloom (R1 stage soybeans) or no more than 45 days after planting, whichever occurs first.

The maximum and minimum rate for any single, in-crop application is 22 fluid ounces (0.5 lb a.e. dicamba) per acre. Using the appropriate application rate may reduce the selection for resistant weeds. For best performance, control weeds early when they are less than 4 inches. To the extent permitted by applicable law, Monsanto Company does not warrant product performance of applications to labeled weeds greater than 4 inches in height.

A second application of this product may be necessary to control new flushes of weeds and can be made prior beginning bloom (R1 stage soybeans) or no more than 45 days after planting, whichever occurs first. Allow at least 7 days between applications. For best results, apply XtendiMax® With VaporGrip® Technology after some weed re-growth has occurred.

Application of this product postemergence and under stressful environments may cause temporary loss of turgor, a response commonly described as leaf droop in Roundup Ready 2 Xtend® Soybean and XtendFlex® Soybean. Typically, affected plants recover in 1-3 days depending on the level of droop and environmental conditions.

RESTRICTIONS:
- The combined total application rate in-crop prior to beginning bloom (R1 stage soybeans) or no more than 45 days after planting, whichever occurs first, must not exceed 44 fluid ounces (1.0 lb. a.e. dicamba) per acre a maximum of two in-crop applications.
- Do not make in-crop applications of this product during and after beginning bloom (R1 stage soybeans) or more than 45 days after planting.
- The maximum single, in-crop application rate must not exceed 22 fluid ounces (0.5 lb. a.e. dicamba) per acre. The combined total per year for all applications must not exceed 88 fluid ounces (2.0 lb. a.e. dicamba) per acre.

13.0 WEEDS CONTROLLED

General Weed List, Including ALS-, Glyphosate, and Triazine-Resistant Biotypes

Annuals

Alkanet
Amaranth, Palmer, Powell, Spiny
Aster, Slender
Bedstraw, Catchweed
Beggarweed, Florida
Broomweed, Common
Buckwheat, Tartary, Wild
Buffalobur
Burclover, California
Burcucumber
Buttercup, Corn, Creeping, Roughseed, Western Field
Carpetweed
Catchfly, Nightflowering
Chamomile, Corn
Chevil, Bur
Chickweed, Common
Clovers
Cockle, Corn, Cow, White
Cocklebur, Common
Copperleaf, Hophornbeam
Cornflower (Bachelor Button)
Croton, Tropic, Woolly
Daisy, English
Dragonhead, American
Eveningprimrose, Cutleaf
Falseflax, Smallseed
Fleabane, Annual
Flixweed
Fumitory
Goosefoot, Nettleleaf
Hempnettle
Henbit
Jacobs-Ladder
Jimsonweed
Knawel (German Moss)
Knotweed, Prostrate
Kochia
Ladysthumb
Lambsquarters Common
Lettuce, Miners, Prickly
Mallow, Common, Venice
Marestail (Horseweed)
Mayweed
Morningglory, Ivyleaf, Tall
Mustard, Black, Blue, Tansy, Treacle, Tumble, Wild, Yellowtops
Nightshade, Black, Cutleaf
Pennycress, Field (Fanweed, Frenchweed, Stinkweed)
Pepperweed, Virginia (Peppergrass)
Pigweed, Prostrate, Redroot (Carelessweed), Rough, Smooth, Tumble
Pineappleweed
Poorjoe
Poppy, Red-horned
Puncturevine
Purslane, Common
Pusley, Florida
Radish, Wild
Ragweed, Common, Giant (Buffaloweed), Lance-Leaf
Rocket, London, Yellow
Rubberweed, Bitter (Bitterweed)
Salsify
Senna, Coffee
Sesbania, Hemp
Shepherdpurse
Sicklepod
Sida, Prickly (Teaweed)
Smartweed, Green, Pennsylvania
Sneezeweed, Bitter
Sowthistle, Annual, Spiny
Spanish Needles
Spikeweed, Common
Spurge, Prostrate, Leafy
Spurry, Corn
Starbur, Bristly
Starwort, Little
Sumpweed, Rough
Sunflower, Common (Wild), Volunteer
Thistle, Russian
Velvetleaf
Waterhemp, Common, Tall
Waterprimrose, Winged
Wormwood

Biennials

Burdock, Common
Carrot, Wild (Queen Anne's Lace)
Cockle, White
Eveningprimrose, Common
Geranium, Carolina
Gromwell
Knapweed, Diffuse, Spotted
Mallow, Dwarf
Plantain, Bracted
Ragwort, Tansy
Starthistle, Yellow
Sweetclover
Teasel
Thistle, Bull, Milk, Musk, Plumeless

Perennials

Alfalfa[1]
Artichoke, Jerusalem
Aster, Spiny, Whiteheath
Bedstraw, Smooth
Bindweed, Field, Hedge
Blueweed, Texas
Bursage, Woollyleaf[1] (Bur Ragweed, Povertyweed)
Buttercup, Tall
Campion, Bladder
Chickweed, Field, Mouseear

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Chicory[1]
Clover[1], Hop
Dandelion[1], Common
Dock[1] Broadleaf (Bitterdock), Curly
Dogbane, Hemp
Dogfennel[1] (Cypressweed)
Fern, Bracken
Garlic, Wild
Goldenrod, Canada, Missouri
Goldenweed, Common
Hawkweed
Henbane, Black[1]
Horsenettle, Carolina
Ironweed
Knapweed, Black, Diffuse, Russian[1], Spotted
Milkweed, Climbing, Common, Honeyvine, Western Whorled
Nettle, Stinging
Nightshade, Silverleaf (White Horsenettle)
Onion, Wild
Plaintain, Broadleaf, Buckhorn
Pokeweed
Ragweed, Western
Redvine
Sericia Lespedeza
Smartweed, Swamp
Snakeweed, Broom
Sorrel[1], Red (Sheep Sorrel)
Sowthistle[1], Perennial
Spurge, Leafy
Sundrops
Thistle, Canada, Scotch
Toadflex, Dalmatian
Tropical Soda Apple
Trumpetcreeper (Buckvine)
Vetch
Waterhemlock, Spotted
Waterprimrose, Creeping
Woodsorrel[1], Creeping, Yellow
Wormwood, Absinth, Louisiana
Yankeeweed
Yarrow, Common[1]

[1] Noted perennials may be controlled using lower rates of **XtendiMax® With VaporGrip® Technology** than those recommended for other listed perennial weeds.

Woody Species

Alder
Ash
Aspen
Basswood
Beech
Birch
Blackberry[2]
Blackgum[2]
Cedar[2]
Cherry
Chinquapin
Cottonwood
Creosotebush[2]
Cucumbertree
Dewberry[2]
Dogwood[2]
Elm
Grape
Hawthorn (Thornapple)[2]
Hemlock
Hickory
Honeylocust
Honeysuckle
Hornbeam
Huckleberry
Huisache
Ivy, Poison
Kudzu
Locust, Black
Maple
Mesquite
Oak
Oak, Poison
Olive, Russian
Persimmon, Eastern
Pine
Plum, Sand (Wild Plum)[2]
Poplar
Rabbitbrush
Redcedar, Eastern[2]
Rose[2], McCartney, Multiflora
Sagebrush, Fringed[2]
Sassafras
Serviceberry
Spicebush
Spruce
Sumac
Sweetgum[2]
Sycamore
Tarbush
Willow
Witchhazel
Yaupon[2]
Yucca[2]

[2]Growth suppression only

14.0 LIMIT OF WARRANTY AND LIABILITY

Monsanto Company warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes set forth in the Complete Directions for Use label booklet ("Directions") when used in accordance with those Directions under the conditions described therein. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, NO OTHER EXPRESS WARRANTY OR IMPLIED WARRANTY OF FITNESS FOR PARTICULAR PURPOSE OR MERCHANTABILITY IS MADE. This warranty is also subject to the conditions and limitations stated herein. Specifically, and without limiting the foregoing, MONSANTO MAKES NO RECOMMENDATION OR WARRANTY HEREIN REGARDING THE USE OF ANY PRODUCTS THAT MAY APPEAR ON THE WEBSITE REFERENCED IN THE TANK-MIXING INSTRUCTIONS HEREIN, REGARDLESS OF WHETHER SUCH PRODUCT IS USED ALONE OR IN A TANK MIX WITH XTENDIMAX® WITH VAPORGRIP® TECHNOLOGY. BUYER AND ALL USERS ARE SOLELY RESPONSIBLE FOR ANY LACK OF PERFORMANCE, LOSS, OR DAMAGE IN

CONNECTION WITH THE USE OR HANDLING OF ANY SUCH PRODUCT ALONE OR IN A TANK MIX WITH XTENDIMAX® WITH VAPORGRIP® TECHNOLOGY.

Buyer and all users shall promptly notify this Company of any claims whether based in contract, negligence, strict liability, other tort or otherwise.

To the extent consistent with applicable law, buyer and all users are responsible for all loss or damage from use or handling which results from conditions beyond the control of this Company, including, but not limited to, incompatibility with products other than those set forth in the Directions, application to or contact with desirable vegetation, failure of this product to control weed biotypes which develop resistance to dicamba, unusual weather, weather conditions which are outside the range considered normal at the application site and for the time period when the product is applied, as well as weather conditions which are outside the application ranges set forth in the Directions, application in any manner not explicitly set forth in the Directions, moisture conditions outside the moisture range specified in the Directions, or the presence of products other than those set forth in the Directions in or on the soil, crop or treated vegetation.

This Company does not warrant any product reformulated or repackaged from this product except in accordance with this Company's stewardship requirements and with express written permission from this Company.

For in-crop (over-the-top) uses on crops with Xtend® Technology, crop safety and weed control performance are not warranted by Monsanto when this product is used in conjunction with "brown bag" or "bin run" seed saved from previous year's production and replanted.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE LIMIT OF THE LIABILITY OF THIS COMPANY OR ANY OTHER SELLER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT (INCLUDING CLAIMS BASED IN CONTRACT, NEGLIGENCE, STRICT LIABILITY, OTHER TORT OR OTHERWISE) SHALL BE THE PURCHASE PRICE PAID BY THE USER OR BUYER FOR THE QUANTITY OF THIS PRODUCT INVOLVED, OR, AT THE ELECTION OF THIS COMPANY OR ANY OTHER SELLER, THE REPLACEMENT OF SUCH QUANTITY, OR, IF NOT ACQUIRED BY PURCHASE, REPLACEMENT OF SUCH QUANTITY. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, IN NO EVENT SHALL THIS COMPANY OR ANY OTHER SELLER BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES.

Upon opening and using this product, buyer and all users are deemed to have accepted the terms of this LIMIT OF WARRANTY AND LIABILITY which may not be varied by any verbal or written agreement. If terms are not acceptable, return at once unopened.

Bollgard II®, Bollgard®, Degree Xtra®, Field Master®, Harness®, Roundup Ready®, Roundup Ready 2 Xtend®, Roundup PowerMAX®, RT 3®, Roundup WeatherMAX®, XtendiMax®, XtendFlex® and VaporGrip® are registered trademarks of Monsanto Technology LLC. All other trademarks are the property of their respective owners.

EPA Reg. No. 524-617

EPA Establishment No. [insert appropriate est. no.]

Lot number [insert appropriate lot number]

Net contents [insert net contents]

Packed for:
MONSANTO COMPANY
800 N. Lindbergh Blvd.
ST. LOUIS, MISSOURI, 63167 U.S.A.

© [DATE]

Message

From: ORR, THOMAS B [AG/1005] [thomas.orr@bayer.com]
Sent: 6/4/2019 9:04:38 PM
To: Baris, Reuben [Baris.Reuben@epa.gov]
CC: Schmid, Emily [Schmid.Emily@epa.gov]; BHAKTA, TINA [AG/1005] [tina.bhakta@monsanto.com]; james.m.nyangulu@monsanto.com
Subject: M1832 Herbicide and M1833 Premix Herbicide Application Deficiency Response (524-AUT and 524-AUI; OPP Decision Numbers: 53140 and 531411)
Attachments: Cover.Letter_Deficiency.response_.pdf; 50855601_MSL0030517_RAR-2019-0301.pdf; 50855602_Deposition_RAR_Report.pdf; 50855603_VegetativeVigor139P-134.pdf; 50855604_analytical-method-validation.pdf; 50855605_Deficiency.Summary.Response.pdf

Reuben,

The attached response to the application deficiency letter received on March 21, 2019 for OPP Decision Numbers 531140 and 531141 (M1832 Herbicide and M1833 Premix Herbicide) was submitted today via the electronic portal. Monsanto Company, a subsidiary of Bayer AG, has provided study reports as part of the response that address all deficiencies specified in the March 21, 2019 letter.

Please let me know if you have any questions regarding the attached response or the associated study reports.

Best regards,

Tom Orr
Global Regulatory Affairs Manager

///////////////////

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Monsanto Company
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Message

From: MARVIN, THOMAS [AG/1920] [thomas.marvin@bayer.com]
Sent: 10/18/2018 3:49:05 PM
To: Baris, Reuben [Baris.Reuben@epa.gov]; tina.bhakta@bayer.com
Subject: RE: EPA label edits for Xtendimax 524-617
Attachments: MASTER LABEL 524-617_10182018.pdf

Reuben,

Please find attached a further revision in response to EPA's comments.

Tom

Tom Marvin
Director, Federal Regulatory Affairs
1300 I Street, NW
Washington, DC 20005
Cell: 202-676-7846
Desk: 202-383-2851

From: Baris, Reuben [mailto:Baris.Reuben@epa.gov]
Sent: Thursday, October 11, 2018 6:47 PM
To: MARVIN, THOMAS [AG/1920] <thomas.marvin@bayer.com>; tina.bhakta@bayer.com
Subject: EPA label edits for Xtendimax 524-617

Tom and Tina,
Attached are the latest round of comments from me and my team. Happy to walk you all through them if anything is unclear.
I think we're still making progress, but with all of the uncertainty on the Endangered Species side, there is still a lot of work left.
Thanks.
Reuben

REUBEN BARIS | PRODUCT MANAGER, TEAM 25 | HERBICIDE BRANCH
U.S. ENVIRONMENTAL PROTECTION AGENCY, OFFICE OF PESTICIDE PROGRAMS | (703) 305-7356

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If improper activity or use is suspected, all available information may be used by the Company for possible disciplinary action, prosecution, civil claim or any remedy or lawful purpose.

MASTER LABEL FOR EPA REG. NO. 524-617

RESTRICTED USE PESTICIDE

For retail sale to and use only by Certified Applicators

This labeling expires on 11/09/20XX, unless the U.S. EPA determines before that date that off-site incidents are not occurring at unacceptable frequencies or levels. Do not use or distribute this product after 11/09/20XX, unless you visit www.xtendimaxapplicationrequirements.com and can verify that EPA has amended this expiration date.

Primary Brand Name:

M1768 Herbicide

Alternate Brand Name:

Xtendimax® With VaporGrip® Technology

DICAMBA	GROUP	4	HERBICIDE

ACTIVE INGREDIENT:

Diglycolamine salt of dicamba (3,6-dichloro-*o*-anisic acid)* 42.8%
OTHER INGREDIENTS: 57.2%

TOTAL: 100.0%
* contains 29.0%, 3,6-dichloro-*o*-anisic acid (2.9 pounds acid equivalent per U.S. gallon or 350 grams per liter).

RESTRICTED USE PESTICIDE

For retail sale to and use only by Certified Applicators

XtendiMax® With VaporGrip® Technology

Complete Directions for Use

This labeling expires on 11/09/20XX, unless the U.S. EPA determines before that date that off-site incidents are not occurring at unacceptable frequencies or levels. Do not use or distribute this product after 11/09/20XX, unless you visit www.xtendimaxapplicationrequirements.com and can verify that EPA has amended this expiration date.

EPA Reg. Number: 524-617

For weed control in asparagus, conservation reserve programs, corn, cotton, fallow croplands, general farmstead (noncropland), sorghum, grass grown for seed, hay, proso millet, pasture, rangeland, small grains, sod farms and farmstead turf, soybean, sugarcane, cotton with XtendFlex Technology, Roundup Ready 2 Xtend Soybean, and XtendFlex Soybean.

DICAMBA	GROUP	4	HERBICIDE

This label supersedes any previously issued labeling for this product, including previously issued supplemental labeling.

XtendiMax® With VaporGrip® Technology is approved by U.S. EPA for all uses specified on this label in the following states, subject to county restriction as noted: Alabama, Arkansas, Arizona, Colorado, Delaware, Florida (excluding Palm Beach County), Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Michigan, Minnesota, Mississippi, Missouri, Nebraska, New Jersey, New Mexico, New York, North Carolina, North Dakota, Oklahoma, Ohio, Pennsylvania, South Carolina, South Dakota, Tennessee (excluding Wilson County), Texas, Virginia, West Virginia, Wisconsin.

Check the registration status of each product in each state before using.

READ THE ENTIRE LABEL FOR **XTENDIMAX® WITH VAPORGRIP® TECHNOLOGY** BEFORE PROCEEDING WITH THE USE DIRECTIONS CONTAINED IN THIS LABEL

READ AND FOLLOW ALL APPLICABLE DIRECTIONS, RESTRICTIONS, AND PRECAUTIONS ON THE CONTAINER LABEL AND BOOKLET AND WWW.XTENDIMAXAPPLICATIONREQUIREMENTS.COM.

Read the "LIMIT OF WARRANTY AND LIABILITY" statement at the end of the label before buying or using. If terms are not acceptable, return at once unopened.

Net contents:

EPA Establishment No.:

ED_005138A_00000142-00002

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1.0 INGREDIENTS

ACTIVE INGREDIENT:

Diglycolamine salt of dicamba (3,6-dichloro-*o*-anisic acid)* 42.8%
OTHER INGREDIENTS: 57.2%

TOTAL: 100.0%
* contains 29.0%, 3,6-dichloro-*o*-anisic acid (2.9 pounds acid equivalent per U.S. gallon or 350 grams per liter).

DICAMBA	GROUP	4	HERBICIDE

2.0 IMPORTANT PHONE NUMBERS

1. FOR PRODUCT INFORMATION OR ASSISTANCE IN USING THIS PRODUCT, CALL TOLL-FREE, 1-800-332-3111.
2. IN CASE OF AN EMERGENCY INVOLVING THIS HERBICIDE PRODUCT, OR FOR MEDICAL ASSISTANCE, CALL COLLECT, DAY OR NIGHT, (314)-694-4000.

IN CASE OF SPILL:

Steps to be taken in case material is released or spilled:

Dike and contain the spill with inert material (sand, earth, etc.) and transfer liquid and solid diking material to separate containers for disposal. Remove contaminated clothing, and wash affected skin areas with soap and water. Wash clothing before re-use. Keep the spill out of all sewers and open bodies of water.

3.0 PRECAUTIONARY STATEMENTS

3.1 Hazards to Humans and Domestic Animals

Keep out of reach of children.

CAUTION!

Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

FIRST AID	
IF IN EYES	• Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
IF SWALLOWED:	• Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give anything by mouth to an unconscious person.
IF ON SKIN OR CLOTHING:	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 to 20 minutes.

	• Call a poison control center or doctor for treatment advice.

- Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
- You can call **(314) 694-4000**, collect day or night, for emergency medical treatment information.
- This product is identified as **XtendiMax® With VaporGrip® Technology, EPA Registration No. 524-617.**

PERSONAL PROTECTIVE EQUIPMENT (PPE)

All mixers, loaders, applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks

See "Engineering Controls Statement" for additional requirements.
Follow the manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

ENGINEERING CONTROLS STATEMENT

When handlers use closed systems, or enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

IMPORTANT: When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for "all mixers, loaders, applicators and other handlers" and have such PPE immediately available for use in an emergency, such as a spill or equipment breakdown.

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

3.2 Environmental Hazards

Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters or rinsate. Apply this product only as directed on the label.

This chemical is known to leach through soil into ground water under certain conditions as a result of agricultural use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.

Ground and Surface Water Protection

Point source contamination - To prevent point source contamination, do not mix or load this pesticide product within 50 feet of wells (including abandoned wells and drainage wells), sink holes, perennial or intermittent streams and rivers, and natural or impounded lakes and reservoirs. Do not apply pesticide

ED_005138A_00000142-00006

product within 50 feet of wells. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pad or properly diked mixing/loading areas as described below.

Mixing, loading, rinsing, or washing operations performed within 50 feet of a well are allowed only when conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be on or move across the pad. The pad must be self-contained to prevent surface water flow over or from the pad. The pad capacity must be maintained at 110% that of the largest pesticide container or application equipment used on the pad and have sufficient capacity to contain all product spills, equipment or container leaks, equipment wash waters, and rainwater that may fall on the pad. The containment capacity does not apply to vehicles delivering pesticide shipments to the mixing/loading site. States may have in effect additional requirements regarding wellhead setbacks and operational containment.

Care must be taken when using this product to prevent: a) back siphoning into wells, b) spills or c) improper disposal of excess pesticide, spray mixtures or rinsates. Check valves or anti-siphoning devices must be used on all mixing equipment.

Movement by surface runoff or through soil - Do not apply under conditions which favor runoff. Do not apply to impervious substrates such as paved or highly compacted surfaces in areas with high potential for ground water contamination. Ground water contamination may occur in areas where soils are permeable or coarse and ground water is near the surface. Do not apply to soils classified as sand with less than 3% organic matter and where ground water depth is shallow. To minimize the possibility of ground water contamination, carefully follow application rate recommendations as affected by soil type in the Crop Specific Information section of this label.

Movement by water erosion of treated soil - Do not apply or incorporate this product through any type of irrigation equipment nor by flood or furrow irrigation. Ensure treated areas have received at least one-half inch rainfall (or irrigation) before using tailwater for subsequent irrigation of other fields.

Endangered Species Concerns
The use of any pesticide in a manner that may kill or otherwise harm an endangered species or adversely modify their habitat is a violation of federal law.

Prior to application of this product you must consult U.S. EPA's Bulletins Live platform at http://www.epa.gov/espp/ or call 1-844-447-3813. You must comply with the applicable endangered species protection measures, if any, that are required for the location where you are applying this product. If there are endangered species protection measures that are required for the location where you are applying this product, they will appear in U.S. EPA's Bulletins Live platform.

3.3 Physical or Chemical Hazards

Do not store or heat near oxidizing agents, hazardous chemical reaction may occur.

4.0 DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling. This product can only be used in accordance with the Directions for Use on this label. This labeling must be in the user's possession during application.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulations.

This is a restricted use pesticide.

4.1 Training

Prior to applying this product in the 2019 growing season and each growing season thereafter, all applicator(s) applying this product must complete dicamba or auxin-specific training. If training is available and required by the state where the applicator intends to apply this product, the applicator must complete that training. If the state where the application is intended does not require auxin or dicamba-specific training, then the applicator must complete dicamba or auxin-specific training provided by one of the following sources: a) a registrant of a dicamba product approved for in-crop use with dicamba-tolerant crops, or b) a state or state-authorized provider.

4.2 Record Keeping

Record keeping is required for applications of this product. **The certified applicator must keep the following records for a period of two years**; records must be generated as soon as practical but no later than 72 hours after application and a record must be kept for each application of Xtendimax with VaporGrip Technology. Records must be made available to State Pesticide Control Official(s), USDA, and EPA upon request. An example form summarizing record keeping requirements can be found on www.xtendimaxapplicationrequirements.com.

1. All Items required by 7 CFR Part 110 (RECORDKEEPING ON RESTRICTED USE PESTICIDES BY CERTIFIED APPLICATORS) including:
    a. The brand or product name
    b. The EPA registration number
    c. The total amount applied
    d. The month, day, and year of application
    e. The location of the application
    f. The crop, commodity, stored product, or site of application
    g. The size of treated area
    h. The name of the certified applicator
    i. The certification number of the certified applicator
2. Training: Date and provider of required training completed and proof of completion.
3. Receipts of Purchase: Receipts or copies for the purchase of this product.
4. Product Label: A copy of this product label, and any state special local needs label that supplements this label.
5. Crop Planting Date: Record of the date at which the crop was planted.
6. Buffer Requirement: Record of the buffer distance calculation and any areas included within the buffer distance calculations as allowed in Section 9.1.4.a.
7. Sensitive Crops Awareness: Record that a sensitive crop registry was consulted ~~if available;~~ and survey adjacent fields ~~and~~ documenting the crops/areas surrounding the field prior to application. At a minimum, records must include the name of the sensitive crop registry and the date it was consulted and documentation of adjacent crops/areas and the date the survey was conducted (read Section 9.1.4.b for additional information).
8. Start and Finish Times of Each Application: Record of the time at which the application started and the time when the application finished.
9. Application Timing: Record of the type of application (for example: pre-emergence, post-emergence) and number of days after planting if post-emergence.
10. Air Temperature: Record of the air temperature in degrees Fahrenheit at the start and completion of each application.
11. Wind Speed and Direction: Record of the wind speed and direction (the direction from which the wind is blowing) at boom height at the start and completion of each application of this product (Read Section 9.1.1 for information on wind speed).
12. Nozzle and Pressure: Record of the spray nozzle manufacturer/brand, type, orifice size, and operating pressure used during each application of this product (Read Section 9.1.1 for information on nozzles and pressures.)

13. Tank Mix Products: Record of the brand names and EPA registration numbers (if available) for all products (pesticides, adjuvants, and other products) that were tank mixed with this product for each application (Read Section 8.0 for more information on tank mixing.)
14. Spray System Cleanout: Record of compliance with the section of this label titled Section 9.5: Proper Spray System Equipment Cleanout. At a minimum, records must include the confirmation that the spray system was clean before using this product and that the post-application cleanout was completed in accordance with Section 9.5.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about Personal Protective Equipment (PPE), and restricted-entry intervals. The requirements in this box only apply to uses of this product that are covered by the WPS.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 24 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as, plants, soil, or water is:

- Coveralls worn over short-sleeved shirt and short pants
- Chemical-resistant footwear plus socks
- Waterproof gloves
- Chemical-resistant headgear for overhead exposure
- Protective eyewear

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Do not enter or allow people (or pets) to enter the treated area until sprays have dried. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Do not enter or allow other people or pets to enter until sprays have dried.

5.0 STORAGE AND DISPOSAL

Proper pesticide storage and disposal are essential to protect against exposure to people and the environment due to leaks and spills, excess product or waste, and vandalism. Do not allow this product to contaminate water, foodstuffs, feed or seed by storage and disposal. Open dumping is prohibited. This product may not be mixed, loaded, or used within 50 feet of all wells including abandoned wells, drainage wells, and sinkholes. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pad or properly diked mixing/loading areas as described above

5.1 Pesticide Storage

Groundwater contamination may be reduced by diking and flooring of permanent liquid bulk storage sites with an impermeable material. Spillage or leakage should be contained and absorbed with clay granules, sawdust, or equivalent material for disposal.
Store in original container in a well-ventilated and away from food, pet food, feed, seed, fertilizers, and veterinary supplies. Avoid cross-contamination with other pesticides. Keep container closed to prevent spills and contamination.

5.2 Pesticide Disposal

To avoid wastes, use all material in this container, including rinsate, by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide

disposal program. Such programs are often run by state or local governments or by industry. All disposal must be in accordance with applicable federal, state and local regulations and procedures.
[*Alternate PESTICIDE DISPOSAL statement for transport vehicles only:* To avoid wastes, empty as much product from this transport vehicle as possible for repackaging or use in accordance with label directions. If wastes cannot be avoided, offer remaining product or rinsate to a waste disposal facility or pesticide disposal program. All disposal must be in accordance with applicable federal, state and local regulations and procedures.]

5.3 Container Handling and Disposal

[*Optional label statement if applicable*: See container label for container handling and disposal instructions and refilling limitations.]

[*CONTAINER HANDLING AND DISPOSAL STATEMENTS AND REFILLING LIMITATIONS FOR CONTAINER LABELS*]

[*CONTAINER HANDLING AND DISPOSAL STATEMENT AND REFILLING LIMITATION FOR NONREFILLABLE RIGID CONTAINERS OF LESS THAN 1-GALLON CAPACITY*]

Nonrefillable container. Do not reuse or refill this container.

[*Alternate container statement:* Nonrefillable container. Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state.]

Triple rinse this container promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Then offer this container for recycling, if available. If recycling is not available, dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.

[*Alternate container disposal statement:* Once properly rinsed, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or Monsanto at 1-800-ROUNDUP (1-800-768-6387). If recycling is not available, dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.]

[*CONTAINER HANDLING AND DISPOSAL STATEMENT AND REFILLING LIMITATION FOR NONREFILLABLE RIGID PLASTIC 2.5-GALLON CONTAINERS AND OTHER NONREFILLABLE CONTAINERS OF GREATER THAN 1-GALLON BUT EQUAL TO OR LESS THAN 5-GALLON CAPACITY*]

Nonrefillable container. Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state.

[*Alternate container statement:* Nonrefillable container. Do not reuse or refill this container.]

Triple rinse or pressure rinse (or equivalent) this container promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Once properly rinsed, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. [*Optional container disposal statement:* To find the nearest site, contact your chemical dealer or Monsanto at 1-800-ROUNDUP (1-800-768-6387)]. If recycling is not available, dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.

[*Alternate container disposal statement:* Then offer this container for recycling, if available. If recycling is not available, dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.]

[*CONTAINER HANDLING AND DISPOSAL STATEMENT AND REFILLING LIMITATION FOR NONREFILLABLE RIGID PLASTIC 30-GALLON CONTAINERS AND OTHER NONREFILLABLE CONTAINERS OF GREATER THAN 5-GALLON CAPACITY*]

Nonrefillable container. Do not reuse or refill this container.

[*Alternate container statement:* Nonrefillable container. Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state.]

Triple rinse or pressure rinse (or equivalent) this container promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Once properly rinsed, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. [*Alternate container disposal statement:* To find the nearest site, contact your chemical dealer or Monsanto at 1-800-ROUNDUP (1-800-768-6387)]. If recycling is not available,

dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.

[*Alternate container disposal statement:* Then offer the container for recycling, if available. If recycling is not available, dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.]

[*Optional container label statement:* Return Properly Rinsed Container to Monsanto for Recycling Contact: 1-800-ROUNDUP (1-800-768-6387)]

[*CONTAINER HANDLING AND DISPOSAL STATEMENT AND REFILLING LIMITATION FOR ALL REFILLABLE CONTAINERS, EXCEPT TRANSPORT VEHICLES*]

Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose.

Cleaning this container before refilling is the responsibility of the refiller. Cleaning this container before final disposal is the responsibility of the person disposing of the container.

To clean this container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer this container for recycling, if available.

[*Optional container disposal statement:* To obtain information about recycling refillable containers, contact Monsanto Company at 1-800-ROUNDUP (1-800-768-6387)]

[*Optional container label statement:* Return Properly Rinsed Container to Monsanto for Recycling, Call 1-800-ROUNDUP (1-800-768-6387)]

[*CONTAINER HANDLING AND DISPOSAL STATEMENT FOR ALL TRANSPORT VEHICLES AS DEFINED IN 40 CFR 156.3]*

THIS LABEL FOR USE WITH TRANSPORT VEHICLES ONLY

Emptied container retains vapor and product residue. Observe all precautions stated on this label until the container is cleaned, reconditioned or destroyed. Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, and worn-out threads and closures. Clean thoroughly before reuse for transportation of a material of different composition or before retiring this transport vehicle from service.

[Alternative label statement: NET CONTENTS: See Bill of Lading]

[Alternative label statement: LOT: See Bill of Lading]

[Alternative label statement: For Net Contents and Lot Number, see Bill of Lading]

6.0 PRODUCT INFORMATION

XtendiMax® With VaporGrip® Technology is approved by U.S. EPA for all uses specified on this label in the following states, subject to county restriction as noted: Alabama, Arkansas, Arizona, Colorado, Delaware, Florida (excluding Palm Beach County), Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Michigan, Minnesota, Mississippi, Missouri, Nebraska, New Jersey, New Mexico, New York, North Carolina, North Dakota, Oklahoma, Ohio, Pennsylvania, South Carolina, South Dakota, Tennessee (excluding Wilson County), Texas, Virginia, West Virginia, Wisconsin.

Additional state restrictions and requirements may apply. The applicator must comply with any additional state requirements and restrictions.

This product is a water-soluble formulation intended for control and suppression of many annual, biennials, and perennial broadleaf weeds, as well as woody brush and vines listed in the WEEDS CONTROLLED section of this label. This product may be used for control of these weeds in asparagus, corn, cotton, conservation reserve programs, fallow cropland, grass grown for seed, hay, proso millet, pasture, rangeland, general farmstead (noncropland), small grains, sod farms and farmstead turf, sorghum, soybean, sugarcane, Cotton with XtendFlex Technology, Roundup Ready 2 Xtend Soybean, and XtendFlex Soybean.

XtendiMax® With VaporGrip® Technology is a contact, systemic herbicide, which can have moderate residual control on small seeded broadleaf weeds, including waterhemp, lambsquarters and Palmer pigweed, depending on rainfall and soil type.

XtendiMax® With VaporGrip® Technology is readily absorbed by plants through shoot and root uptake, translocates throughout the plant's system, and accumulates in areas of active growth. XtendiMax® With VaporGrip® Technology interferes with the plant's growth hormones (auxins) resulting in death of many broadleaf weeds.

Failure to properly clean the entire spray system can result in inadvertent contamination of the spray system. You must ensure that the spray system used to apply this product is clean before using this product.

Rainfast period: Rainfall or irrigation occurring within 4 hours after postemergence applications may reduce the effectiveness of this product.

Refer to the CROP-SPECIFIC INFORMATION and CROPS WITH XTEND TECHNOLOGY sections for application timing and other crop-specific details.

6.1 Restrictions

The applicator must read the entire label, including product labeling and follow all restrictions for XtendiMax® With VaporGrip® Technology. Restrictions included, but are not limited to:

- DO NOT APPLY THIS PRODUCT AERIALLY.
- DO NOT TANK MIX WITH PRODUCTS CONTAINING AMMONIUM SALTS SUCH AS AMMONIUM SULFATE (AMS) AND UREA AMMONIUM NITRATE. Small quantities of AMS can greatly increase the volatility potential of dicamba. Read the TANK MIXING INSTRUCTIONS of this label (Section 8.0) for instructions regarding other tank mix products.
- DO NOT APPLY TO CROPS UNDER STRESS DUE TO LACK OF MOISTURE, HAIL DAMAGE, FLOODING, HERBICIDE INJURY, MECHANICAL INJURY, INSECTS, OR WIDELY FLUCTUATING TEMPERATURES AS INJURY MAY RESULT.
- DO NOT APPLY THROUGH ANY TYPE OF IRRIGATION EQUIPMENT. DO NOT TREAT IRRIGATION DITCHES OR WATER USED FOR CROP IRRIGATION OR DOMESTIC PURPOSES.

- DO NOT MAKE APPLICATION OF THIS PRODUCT IF RAIN THAT MAY EXCEED SOIL FIELD CAPACITY AND RESULT IN SOIL RUNOFF IS EXPECTED IN THE NEXT 24 HOURS

Review the entire label including, specific crop use direction sections for additional restrictions.

7.0 WEED RESISTANCE MANAGEMENT

DICAMBA	GROUP	4	HERBICIDE

Dicamba mimics auxin (a plant hormone) resulting in a hormone imbalance in sensitive plants that interferes with normal cell division, cell enlargement, and protein synthesis. Dicamba active ingredient is a Group 4 herbicide based on the mode of action classification system of the Weed Science Society of America. Any weed population can contain plants naturally resistant to Group 4 herbicides. Weed species resistant to Group 4 herbicides can be effectively managed utilizing another herbicide from a different Group, or by using other cultural or mechanical practices.

7.1 Weed Management Practices

Certain agronomic practices can delay or reduce the likelihood that resistant weed populations will develop and can be utilized to manage weed resistance once it occurs.

Do not use less than the labeled rate of this product in a single application. Using the appropriate application rate can minimize the selection for resistant weeds.

Proactively implementing diversified weed control strategies to minimize selection for weed populations resistant to one or more herbicides is a best practice. A diversified weed management program may include the use of multiple herbicides with different sites of action and overlapping weed spectrum with or without tillage operations and/or other cultural practices. Research has demonstrated that using the labeled rate and directions for use is important to delay the selection for resistance.

The continued effectiveness of this product depends on the successful implementation of a weed resistance management program.

To aid in the prevention of developing weeds resistant to this product:

- Scout fields before application to ensure herbicides and rates will be appropriate for the weed species and weed sizes present.
- Start with a clean field, using either a burndown herbicide application or tillage.
- Control weeds early when they are relatively small (less than 4 inches).
- Apply full rates of XtendiMax® With VaporGrip® Technology for the most difficult to control weed in the field at the specified time (correct weed size) to minimize weed escapes.
- Avoid tank mixtures with other herbicides that reduce the efficacy of this product (through antagonism), or with ones that encourage application rates of this product below those specified on this label.
- Scout fields after application to detect weed escapes or shifts in weed species.
- Control weed escapes before they reproduce by seed or proliferate vegetatively.
- Report any incidence of non-performance of this product against a particular weed species to your Monsanto retailer or representative or call 1-844-RRXTEND (1-844-779-8363).
- If resistance is suspected, treat weed escapes with an herbicide having a site of action other than Group 4 and/or use non-chemical methods to remove escapes, as practical, with the goal of preventing further seed production. EPA defines suspected herbicide resistance as the situation where the following three indicators occur at a site or location:

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- Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds;
- A spreading patch of non-controlled plants of a particular weed species; and
- Surviving plants mixed with controlled individuals of the same species.

Additionally, users should follow as many of the following herbicide resistance management practices as is practical:

- Use a broad spectrum soil-applied herbicide with other sites of action as a foundation in a weed control program.
- Utilize sequential applications of herbicides with alternative sites of action.
- Rotate the use of this product with non-Group 4 herbicides.
- Avoid making more than two applications of dicamba and any other Group 4 herbicides within a single growing season unless mixed with an herbicide with a different mechanism of action with an overlapping spectrum for the difficult to control weeds.
- Incorporate non-chemical weed control practices, such as mechanical cultivation, crop rotation, cover crops and weed-free crop seeds, as part of an integrated weed control program.
- Use good agronomic principles that enhance crop development and crop competitiveness.
- Thoroughly clean plant residues from equipment before leaving fields suspected to contain resistant weeds.
- Manage weeds in and around fields, during and after harvest to reduce weed seed production.

Contact the local agricultural extension service, Monsanto representative, agricultural retailer or crop consultant for further guidance on weed control practices as needed.

7.2 Management of Dicamba-Resistant Biotypes

Appropriate testing is critical in order to determine if a weed is resistant to dicamba. Contact your Monsanto representative to determine if resistance in any particular weed biotype has been confirmed in your area, or visit on the Internet www.weedresistancemanagement.com or www.weedscience.org.

Monsanto Company is not responsible for any losses that result from the failure of this product to control dicamba-resistant weed biotypes.

The following good agronomic practices can reduce the spread of confirmed dicamba-resistant biotypes:

- If a naturally occurring resistant biotype is present in your field, this product may be tank-mixed or applied sequentially with an appropriately labeled herbicide with a different mode of action to achieve control (read Section 8.0 for more information on tank mixing).
- Cultural and mechanical control practices (e.g., crop rotation or tillage) can also be used as appropriate.
- Scout treated fields after herbicide application and control weed escapes, including resistant biotypes, before they set seed.
- Thoroughly clean equipment, as practical, for all weed seeds before leaving fields known to contain resistant biotypes.

8.0 TANK MIXING INSTRUCTIONS

Auxin herbicides such as dicamba have the potential to volatilize in lower pH spray mixtures without appropriate buffering agents. XtendiMax® with VaporGrip® Technology contains a buffering agent. Knowing the pH of your spray mixture and making the appropriate adjustments to avoid a low pH spray mixture can reduce the potential for volatilization to occur. Talk to your local agricultural consultant, extension agent, or Bayer representative for recommendations to prevent low pH spray mixtures.

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XtendiMax® With VaporGrip® Technology may only be tank-mixed with products that have been tested and found not to adversely affect the offsite movement potential of XtendiMax® With VaporGrip® Technology. The applicator must check the website found at www.xtendimaxapplicationrequirements.com no more than 7 days before applying XtendiMax® With VaporGrip® Technology.

DO NOT tank mix any product with XtendiMax® With VaporGrip® Technology unless:

1. The intended tank-mix product is identified on the list of tested products found at www.xtendimaxapplicationrequirments.com;
2. The intended products are not prohibited on either this label or the label of the tank mix product; and
3. All requirements and restrictions on www.xtendimaxapplicationrequirments.com are followed.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, MONSANTO MAKES NO RECOMMENDATION OR WARRANTY HEREIN REGARDING THE USE OF ANY PRODUCT THAT MAY APPEAR ON THE WEBSITE REFERENCED ABOVE, REGARDLESS OF WHETHER SUCH PRODUCT IS USED ALONE OR IN A TANK MIX WITH XTENDIMAX® WITH VAPORGRIP® TECHNOLOGY. BUYER AND ALL USERS ARE SOLELY RESPONSIBLE FOR ANY LACK OF PERFORMANCE, LOSS, OR DAMAGE IN CONNECTION WITH THE USE OR HANDLING OF ANY SUCH PRODUCT ALONE OR IN A TANK MIX WITH XTENDIMAX® WITH VAPORGRIP® TECHNOLOGY. See the section titled "LIMIT OF WARRANTY AND LIABILITY" herein for more information.

8.1 Compatibility Test for Mix Components

Before mixing components, always perform a compatibility jar test.

- For 15 gallons per acre spray volume, use 2.5 cups (591.5 mL) of water. For other spray volumes, adjust rates accordingly. Only use water from the intended source at the source temperature.
- Add components in the sequence indicated in the Mixing Order section below using 2 teaspoons for each pound or 1 teaspoon for each pint of labeled use rate per acre.
- Cap the jar and invert 10 cycles between component additions.
- When the components have all been added to the jar, let the solution stand for 15 minutes.
- Evaluate the solution for uniformity and stability. The spray solution should not have free oil on the surface; fine particles that precipitate to the bottom; or thick (clabbered) texture. If the spray solution is not compatible, repeat the compatibility test with the addition of a suitable compatibility agent. If the solution is then compatible, use the compatibility agent as directed on its label. If the solution is still incompatible, then do not mix the ingredients in the same tank.

8.2 Mixing Order

Only use approved tank mix products as directed on www.xtendimaxapplicationrequirements.com. Always read and follow label directions for all products in the tank mixture. It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. See section 8.0 for additional restrictions on tank mixing.

1. Ensure application and mixing equipment are clean and in proper working order
2. Water - Begin by agitating a thoroughly **clean sprayer** tank three-quarters full of clean water.
3. Agitation - Maintain constant agitation throughout mixing and application.

4. Drift Reducing Adjuvants (DRA)-(when applicable)
5. Inductor - If an inductor is used, rinse it thoroughly after each component has been added.
6. Products in PVA bags - Place any product contained in water-soluble PVA bags into the mixing tank. Wait until all water-soluble PVA bags have fully dissolved and the product is evenly mixed in the spray tank before continuing.
7. Water-dispersible products (dry flowables, wettable powders, suspension concentrates, or suspo-emulsions)
8. Water-soluble products (such as XtendiMax® With VaporGrip® Technology)
9. Emulsifiable concentrates (such as oil concentrate when applicable)
10. Water-soluble additives (when applicable)
11. Add remaining quantity of water.

Maintain constant agitation during application

8.3 Adjuvants, Drift Reducing Adjuvants, Surfactants, and Other Tank Mixed Products

See Section 8.0 TANK MIXING INSTRUCTIONSTANK MIXING INSTRUCTIONS for tank mixing instructions for adjuvants, drift reducing adjuvants, surfactants, and other tank mixed products.

9.0 APPLICATION EQUIPMENT AND TECHNIQUES

DO NOT APPLY THIS PRODUCT USING AERIAL SPRAY EQUIPMENT.

XtendiMax® With VaporGrip® Technology can be applied to actively growing weeds as broadcast, band, or spot spray applications using water as a carrier. For best results, treat weeds early when they are relatively small (less than 4 inches). Timely application to small weeds early in the season will improve control and reduce weed competition. Refer to Table 1 for XtendiMax® With VaporGrip® Technology application rates for control or suppression by weed type and growth stage. For crop-specific application timing and other details, refer to the CROP-SPECIFIC INFORMATION section of this label.

APPLY THIS PRODUCT USING PROPERLY MAINTAINED AND CALIBRATED EQUIPMENT CAPABLE OF DELIVERING THE REQUIRED VOLUMES.

Using a hooded sprayer or other drift reduction technology in combination with approved nozzles may further reduce drift potential.

Cultivation: Do not cultivate within 7 days after applying this product.

Table 1. XtendiMax® With VaporGrip® Technology Application Rates for Control or Suppression by Weed Type and Growth Stage
Use rate limitations are given in sections 10 (RESTRICTIONS), 11 (CROP-SPECIFIC INFORMATION), and 12 (CROPS WITH XTEND TECHNOLOGY)

Weed Type and Stage	Rate Per Acre	Weed Type and Stage	Rate Per Acre
Annual[1]		**Perennial**	
Small, actively growing	11 – 22 fluid ounces	Top growth suppression	11 – 22 fluid ounces
Established weed growth	22 – 33 fluid ounces	Top growth control and root suppression	22 – 44 fluid ounces
		Noted perennials (footnote 1 in Section 13.0).	44 fluid ounces
		Other perennials (without footnote 1 in Section	44 fluid ounces

		13.0)[3]	
Biennial Rosette diameter 1 – 3 inches Rosette diameter 3 inches or more Bolting	 11 – 22 fluid ounces 22 – 44 fluid ounces 44 fluid ounces	**Woody Brush & Vines** Top growth suppression Top growth control[2,3] Stems and stem suppression[3]	 22 – 44 fluid ounces 44 fluid ounces 44 fluid ounces

[1] Rates below 11 fluid ounces per acre may provide control or suppression but should typically be applied with other herbicides that are effective on the same species and biotype.
[2] Woody Species listed in section 13.0 may require tank mixes for adequate top growth control.
[3] DO NOT broadcast apply more than 44 ounces per acre for a single application and DO NOT exceed broadcast applications of more than 88 ounces per acre within the growing season when a sequential application is needed for control. Use the higher rate when treating dense vegetation or perennial weeds with established root growth. Perennials and Woody Species are defined as those listed in Section 13.0.

9.1 Spray Drift Management

Do not allow herbicide solution to mist, drip, drift or splash onto desirable vegetation because severe injury or destruction to desirable broadleaf plants could result.

The most effective way to reduce drift potential is to apply large droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if the application is made improperly, or under unfavorable environmental conditions (see the **"Temperature and Humidity"** and "**Temperature Inversions"** sections of this label).

9.1.1 Sprayer Setup

The following sprayer setup requirements for drift management must be followed:

- **Nozzle type.** The applicator must use an approved nozzle within a specified pressure range as found at www.xtendimaxapplicationrequirements.com when applying XtendiMax® With VaporGrip® Technology. Do not use any other nozzle and pressure combination not specifically listed on this website.

- **Spray Volume.** The applicator must apply this product in a **minimum of 15 gallons of spray solution per acre**. See Section 8.0 for information on approved tank mix products.

- **Equipment Ground Speed.** Do not exceed a **ground speed of 15 miles per hour**. Select a ground speed that will deliver the desired spray volume while maintaining the desired spray pressure, but slower speeds generally result in better spray coverage and deposition on the target area. Provided the applicator can maintain the required nozzle pressure, it is recommended that tractor speed is reduced to 5 miles per hour at field edges.

- **Spray boom Height.** Do not exceed a **boom height of 24 inches** above target pest or crop canopy. Excessive boom height will increase the drift potential.

- **Wind Speed.** Do not apply when wind speeds are **less than 3 MPH or greater than 10 MPH**. Only apply when wind speed at boom height is between 3 and 10 mph.

9.1.2 Temperature and Humidity

When making applications in low relative humidity or temperatures above 91 degrees Fahrenheit, set up equipment to produce larger droplets to compensate for evaporation (for example: increase orifice size and/or increase spray volume as directed on www.xtendimaxapplicationrequirements.com). Larger droplets have a lower surface to volume ratio and can be impacted less by temperature and humidity. Droplet evaporation is most severe when conditions are both hot and dry.

9.1.3 Temperature Inversions

Do not apply this product during a temperature inversion as the off-target movement potential is high. In general, temperature inversions are more likely during nighttime hours. Applications of this product may ONLY occur one hour after sunrise though two hours before sunset.

- During a temperature inversion, the atmosphere is very stable and vertical air mixing is restricted, which can cause small, suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light, variable winds common during inversions.
- Temperature inversions can be characterized by increasing temperatures with altitude and can be common on evenings and nights with limited cloud cover and light to no wind. Cooling of air at the earth's surface takes place and warmer air is trapped above it. Temperature inversions can begin to form as the sun sets and often continue into the morning.
- Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.
- The inversion will typically dissipate with increased winds (above 3 miles per hour) or at sunrise when the surface air begins to warm (generally 3°F from morning low).

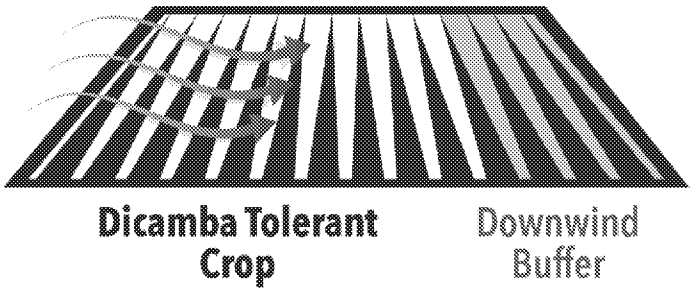
9.1.4 Buffer Requirements and Protection of Sensitive Crops

Do not apply under circumstances where drift may occur to food, forage, or other plantings that might be damaged or the crops rendered unfit for sale, use, or consumption.

9.1.4.a. **Buffer Requirement**

The applicator **must always maintain** a 110 foot downwind buffer (when applying up to 22 fluid ounces of this product per acre) or a 220 foot downwind buffer (when applying greater than 22 up to 44 fluid ounces of this product per acre) between the last treated row and the nearest downwind field edge (in the direction the wind is blowing).

If you have questions regarding Buffer Requirement contact Bayer at 1-844-RRXTEND prior to application.



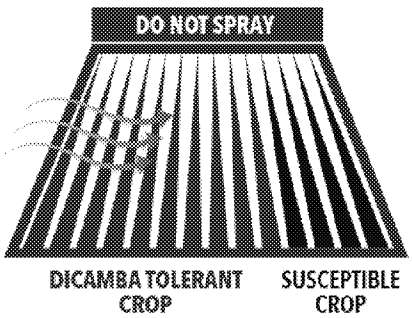
The following areas may be included in the buffer distance calculation when directly adjacent to the treated field edges:

- Roads, paved or gravel surfaces, mowed and/or managed areas adjacent to field such as road ditches.
- Planted agricultural fields containing: corn, dicamba tolerant cotton, dicamba tolerant soybean, sorghum, proso millet, small grains and sugarcane. If the applicator intends to include such crops as dicamba tolerant cotton and/or dicamba tolerant soybeans in the buffer distance calculation, the applicator must confirm the crops are in fact dicamba tolerant.
- Agricultural fields that have been prepared for planting
- Areas covered by the footprint of a building, silo, or other man made structure with walls and or roof.

9.1.4.b. **Sensitive Crops**

DO NOT APPLY this product when the wind is blowing toward adjacent non-dicamba tolerant sensitive crops; this includes **NON-DICAMBA TOLERANT SOYBEAN AND COTTON.**

It is important for the applicator to be aware that wind direction may vary during the application. If wind direction shifts such that the wind is blowing toward adjacent non-dicamba tolerant sensitive crops, the applicator must cease the application.



Before making an application, consult a sensitive crop registry (such as FieldWatch) ~~if available~~**; and survey adjacent fields and confirm the crops/areas surrounding the field prior to application.** ~~See section 4.2 for related record keeping requirements.~~

At a minimum, records must include the name of the sensitive crop registry and the date it was consulted and documentation of adjacent crops/areas and the date the survey was conducted.

Sensitive crops include, but are not limited to non-dicamba tolerant soybeans and cotton, tomatoes and other fruiting vegetables (EPA crop group 8), fruit trees, cucurbits (EPA crop

group 9), grapes, beans, flowers, ornamentals, peas, potatoes, sunflower, tobacco, other broadleaf plants, and including plants in a greenhouse. Severe injury or destruction could occur if any contact between this product and these plants occurs.

If you have questions regarding sensitive crop registries contact Bayer at 1-844-RRXTEND prior to application.

9.1.5 Application Awareness

AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR.

The interaction of equipment and weather related factors must be monitored to maximize performance and on-target spray deposition. The applicator is responsible for considering all of these factors when making a spray decision. The applicator is responsible for compliance with state and local pesticide regulations, including any state or local pesticide drift regulations.

9.2 Ground Application (Banding)

When applying XtendiMax® With VaporGrip® Technology by banding, determine the amount of herbicide and water volume needed using the following formula:

$$\frac{\text{Bandwidth in inches}}{\text{Row width in inches}} \times \text{Broadcast rate per acre} = \text{Banding herbicide rate per acre}$$

$$\frac{\text{Bandwidth in inches}}{\text{Row width in inches}} \times \text{Broadcast volume per acre} = \text{Banding water volume per acre}$$

9.3 Ground Application (Broadcast)

Water Volume: Use a **minimum of 15 gallons** of spray solution per broadcast acre for optimal performance. Use 20 gallons per acre when treating dense or tall vegetation.

Application Equipment: Select nozzles (refer to section 9.1.1 Nozzle type of this product label) designed to produce minimal amounts of fine spray particles. Spray with nozzles as close to the weeds as practical for good weed coverage.

Using a hooded sprayer or other drift reduction technology in combination with approved nozzles may further reduce drift potential.

9.4 Ground Application (Wipers)

XtendiMax® With VaporGrip® Technology may be applied through wiper application equipment to control or suppress actively growing broadleaf weeds, brush and vines. Use a solution containing 1 part XtendiMax® With VaporGrip® Technology to 1 part water. Do not apply greater than 1 lb dicamba acid equivalent (1 quart of this product) per acre per application. Do not contact desirable vegetation with herbicide solution. Wiper application may be made to crops (including pastures) and non-cropland areas described in this label except for non-dicamba-tolerant cotton, sorghum, and non-dicamba-tolerant soybean.

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9.5 Proper Spray System Equipment Cleanout

You must ensure that the spray system used to apply this product is clean before using this product.

Failure to properly clean the entire spray system can result in inadvertent contamination of the spray system. Small quantities of dicamba may cause injury to non-dicamba tolerant soybeans and other sensitive crops (see Section 9.1.4 of this label for more information).

Inadvertent contamination can also occur in equipment used for bulk product handling and mixing prior to use in the spray system. Care should be taken to reduce contamination not only in the spray system but in any equipment used to transfer or deliver product. For example, b~~B~~ulk handling and mixing equipment containing this product should be segregated when possible to reduce potential for cross-contamination. Consider using block and check valves to avoid backflow during transfer. Piping should be reviewed to ensure there not potential for product build-up. Dedicated nurse trucks and tender equipment should be used when possible.

~~Small quantities of dicamba may cause injury to non-dicamba tolerant soybeans and other sensitive crops (see Section 9.1.4 of this label for more information).~~

Clean equipment immediately after using this product, using a triple rinse procedure as follows:

1. After spraying, drain the sprayer (including boom and lines) immediately. Do not allow the spray solution to remain in the spray boom lines overnight prior to flushing.
2. Flush tank, hoses, boom and nozzles with clean water. If equipped, open boom ends and flush.
3. Inspect and clean all strainers, screens and filters.
4. Prepare a cleaning solution with a commercial detergent or sprayer cleaner or ammonia according to the manufacturer's directions.
5. Take care to wash all parts of the tank, including the inside top surface. Start agitation in the sprayer and thoroughly recirculate the cleaning solution for at least 15 minutes. All visible deposits must be removed from the spraying system.
6. Flush hoses, spray lines and nozzles for at least 1 minute with the cleaning solution.
7. Remove nozzles, screens and strainers and clean separately in the cleaning solution after completing the above procedures.
8. Drain pump, filter and lines.
9. Rinse the complete spraying system with clean water.
10. Clean and wash off the outside of the entire sprayer and boom.
11. All rinse water must be disposed of in compliance with local, state, and federal guidelines.

10.0 ADDITIONAL RESTRICTIONS

Maximum Application Rates: The maximum application or use rates stated throughout this label are given in units of volume (fluid ounces or quarts) of this product per acre. However, the maximum allowed application rates apply to this product combined with the use of any and all other herbicides containing the active ingredients dicamba, whether applied separately or as a tank mixture, on a basis of total pounds of dicamba (acid equivalents) per acre. If more than one dicamba-containing product is applied to the same site within the same year, you must ensure that the total use of dicamba (pounds acid equivalents) does not exceed 2 pounds/A per year from all applications. See the INGREDIENTS section of this label for necessary product information.

Maximum seasonal use rate: Refer to Table 2. Crop-Specific Restrictions for crop-specific maximum seasonal use rates. Do not exceed 88 fluid ounces of XtendiMax® With VaporGrip® Technology (2 pounds acid equivalent) per acre, per year.

Preharvest Interval (PHI): Refer to the CROP-SPECIFIC INFORMATION section for preharvest intervals.

Restricted Entry Interval (REI): 24 hours

Crop Rotational Restrictions

No rotational cropping restrictions apply when rotating to Roundup Ready 2 Xtend® Soybeans, XtendFlex® Soybeans, or cotton seed with XtendFlex® Technology (including Bollgard® 3 XtendFlex® Cotton, Bollgard II® XtendFlex® Cotton, or XtendFlex® Cotton). For other crops the interval between application and planting rotational crop is given below. When counting days from the application of this product, do not count days when the ground is frozen. Planting at intervals less than specified below may result in crop injury. Moisture is essential for the degradation of this herbicide in soil. If dry weather prevails, use cultivation to allow herbicide contact with moist soil.

Planting/replanting restrictions at application rates of 33 fluid ounces of this product per acre per season or less: Follow the planting restrictions in the directions for use for Preplant application in the Crop Specific Information section of this label. For corn, cotton (except cotton seed with XtendFlex® Technology), sorghum, and soybean (except Roundup Ready 2 Xtend® Soybean and XtendFlex® Soybean), follow the planting restrictions in the directions for use for preplant application in **Section 11. Crop-Specific Information** of this label. Do not plant barley, oat, wheat, and other grass seedings for 15 days for every 11 fluid ounces of this product applied per acre east of the Mississippi River and 22 days for every 11 fluid ounces per acre applied west of the Mississippi River. No planting restrictions apply beyond 120 days after application of this product.

Planting/replanting restrictions at application rates of more than 33 fluid ounces and up to 88 fluid ounces of this product per acre per season: Wait a minimum of 120 days after application of this product before planting corn, sorghum and cotton (except cotton seed with XtendFlex® Technology) east of the Rocky Mountains and before planting all other crops (except Roundup Ready 2 Xtend® Soybean and XtendFlex® Soybean) grown in areas receiving 30 inches or more rainfall annually. Wait a minimum of 180 days before planting crops in areas with less than 30 inches of annual rainfall. Wait a minimum of 30 days for every 22 fluid ounces of this product applied per acre before planting barley, oat, wheat, and other grass seedings east of the Mississippi River and 45 days for every 22 fluid ounces of this product applied per acre west of the Mississippi River.

Table 2. Crop-Specific Restrictions[1]

Crop	Maximum Rate Per Acre Per Application (fl oz)	Maximum Rate Per Acre Per Season (fl oz)	Livestock Grazing or Feeding
Asparagus	22	22	Yes
Barley; Fall Spring	11 11	16.5 15	Yes

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Conservation Reserve Program (CRP)	44	88	Yes
Corn	22	33	Yes[2]
Cotton	11	11	Yes
Cotton with XtendFlex Technology	44	88	Yes
Fallow Ground	44	88	Yes
Grass grown for seed	44	88	Yes
Oats	5.5	5.5	Yes
Pastureland	44	44	Yes
Proso Millet	5.5	5.5	Yes
Small grains grown for grass, forage, fodder, hay and/or pasture	22	22	Yes
Sorghum	11	22	Yes
Soybean	44	44	Yes
Roundup Ready 2 Xtend Soybean and XtendFlex Soybean	44	88	Yes
Sugarcane	44	88	Yes
Triticale	5.5	5.5	Yes

Sod farms and farmstead turf	44	44	Yes
Wheat	11	22	Yes
[1]Refer to section **11. CROP-SPECIFIC INFORMATION** and section **12. CROPS WITH XTEND TECHNOLOGY** for more details. [2]Once the crop reaches the ensilage (milk) stage or later in maturity			

11.0 CROP-SPECIFIC INFORMATION

Read Sections: 8.0 for Tank Mixing Instructions and 9.1.4 for Buffer Requirements and Sensitive Crops for information on tank mixing, buffer requirements, and sensitive crops.

11.1 Asparagus

Apply XtendiMax® With VaporGrip® Technology to emerged and actively growing weeds in 40 - 60 gallons of diluted spray per treated acre immediately after cutting the field, but at least 24 hours before the next cutting. Multiple applications may be made per growing season.

If spray contacts emerged spears, crooking (twisting) of some spears may result. If such crooking occurs, discard affected spears.

Rates: Apply 11-22 fluid ounces of XtendiMax® With VaporGrip® Technology to control annual sowthistle, black mustard, Canada and Russian thistle, and redroot pigweed (carelessweed).

Apply 22 fluid ounces of XtendiMax® With VaporGrip® Technology to control common chickweed, field bindweed, nettleleaf goosefoot, and wild radish. Up to 2 applications may be made per growing season. Do not exceed a total of 22 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre, per crop year.

Do not harvest prior to 24 hours after treatment.

[Optional: Do not use in the Coachella Valley of California]

11.2 Between Crop Applications

Preplant Directions (Postharvest, Fallow, Crop Stubble, Set-Aside) for Broadleaf Weed Control:

XtendiMax® With VaporGrip® Technology can be applied either postharvest in the fall, spring, or summer during the fallow period or to crop stubble/set-aside acres. Apply XtendiMax® With VaporGrip® Technology as a broadcast or spot treatment to emerged and actively growing weeds after crop harvest (postharvest) and before a killing frost or in the fallow cropland or crop stubble the following spring or summer.

See the "Crop Rotational Restrictions" in Section 10 of this label for the recommended interval between application and planting to prevent crop injury.

Rates and Timings:

Apply 5.5 – 44 fluid ounces of XtendiMax® With VaporGrip® Technology per acre. Refer to Table 1 to determine use rates for specific targeted weed species. For best performance, apply XtendiMax® With VaporGrip® Technology when annual weeds are less than 4 inches tall, when biennial weeds are in the rosette stage and to perennial weed regrowth in late summer or fall following a mowing or tillage treatment. The most effective control of upright perennial broadleaf weeds such as Canada thistle and

Jerusalem artichoke occurs if XtendiMax® With VaporGrip® Technology is applied when the majority of weeds have at least 4 – 6 inches of regrowth or for weeds such as field bindweed and hedge bindweed that are in or beyond the full bloom stage.

Avoid disturbing treated areas following application. Treatments may not kill weeds that develop from seed or underground plant parts such as rhizomes or bulblets, after the effective period for XtendiMax® With VaporGrip® Technology. For seedling control, a follow-up program or other cultural practices could be instituted. For small grain in-crop uses of XtendiMax® With VaporGrip® Technology, refer to the small grain section for details.

11.3 Conservation Reserve Program (CRP)

XtendiMax® With VaporGrip® Technology is recommended for use on both newly seeded and established grasses grown in Conservation Reserve or federal Set-Aside Programs. Treatments of XtendiMax® With VaporGrip® Technology will injure or may kill alfalfa, clovers, lespedeza, wild winter peas, vetch, and other legumes.

Newly Seeded Areas

XtendiMax® With VaporGrip® Technology may be applied either preplant or postemergence to newly seeded grasses or small grains such as barley, oats, rye, sudanqrass, wheat, or other grain species grown as a cover crop. Postemergence applications may be made after seedling grasses exceed the 3-leaf stage. Rates of XtendiMax® With VaporGrip® Technology greater than 22 fluid ounces per treated acre may severely injure newly seeded grasses.

Preplant applications may injure new seedlings if the interval between application and grass planting is less than 45 days per 22 fluid ounces of XtendiMax® With VaporGrip® Technology applied per treated acre west of the Mississippi River or 20 days per 22 fluid ounces applied east of the Mississippi River.

Established Grass Stands

Established grass stands are perennial grasses planted one or more seasons prior to treatment. Certain species (bentgrass, carpetgrass, smooth brome, buffalograss, or St. Augustinegrass) may be injured when treated with more than 22 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre.

When applied at recommended rates, XtendiMax® With VaporGrip® Technology will control many annual and biennial weeds and provide control or suppression of many perennial weeds.

Rates and Timings

Apply 5.5 - 44 fluid ounces of XtendiMax® With VaporGrip® Technology per acre. Refer to **Table 1** for rates based on target weed species. Retreatments may be made as needed; however, do not exceed a total of 88 fluid ounces (4 pints) of XtendiMax® With VaporGrip® Technology per acre per year.

11.4 Corn (Field, Pop, Seed, And Silage)

Direct contact of XtendiMax® With VaporGrip® Technology with corn seed must be avoided. If corn seeds are less than 1.5 inches below the surface, delay application until corn has emerged.

Applications of XtendiMax® With VaporGrip® Technology to corn during periods of rapid growth may result in temporary leaning. Corn will usually become erect within 3 to 7 days. Cultivation should be delayed until after corn is growing normally to avoid breakage.

Corn may be harvested or grazed for feed once the crop has reached the ensilage (milk) stage or later in maturity.

Up to 2 applications of XtendiMax® With VaporGrip® Technology may be made during a growing season. Sequential applications must be separated by 2 weeks or more.

Do not apply XtendiMax® With VaporGrip® Technology to seed corn or popcorn without first verifying with your local seed corn company (supplier) the selectivity of XtendiMax® With VaporGrip® Technology on your inbred line or variety of popcorn. This precaution will help avoid potential injury of sensitive varieties.

Avoid using crop oil concentrates after crop emergence as crop injury may result. Use crop oil concentrates only in dry conditions when corn is less than 5 inches tall when applying XtendiMax® With VaporGrip® Technology.

Use of sprayable fluid fertilizer as the carrier is not recommended for applications of XtendiMax® With VaporGrip® Technology made after corn emergence.

XtendiMax® With VaporGrip® Technology is not registered for use on sweet corn.

Preplant and Preemergence Application in No-Tillage Corn:

Rates: Apply 22 fluid ounces of XtendiMax® With VaporGrip® Technology per acre on medium- or fine-textured soils containing 2.5% or greater organic matter. Use 11 fluid ounces per acre on coarse soils (sand, loamy sand, and sandy loam) or medium- and fine-textured soils with less than 2.5% organic matter.

Timing: XtendiMax® With VaporGrip® Technology can be applied to emerging weeds before, during, or after planting a corn crop. When planting into a legume sod (e.g., alfalfa or clover), apply XtendiMax® With VaporGrip® Technology after 4 – 6 inches of regrowth has occurred

Preemergence Application in Conventional or Reduced Tillage Corn:

Rates: Apply 22 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre on medium- or fine-textured soils containing 2.5% organic matter or more. Do not apply to coarse textured soils (sand, loamy sand, or sandy loam) of any soil with less than 2.5% organic matter until after corn emergence (See Early Postemergence uses below).

Timing: XtendiMax® With VaporGrip® Technology may be applied after planting and prior to corn emergence. Pre-emergence application of XtendiMax® With VaporGrip® Technology does not require mechanical incorporation to become active. A shallow mechanical incorporation is recommended if application is not followed by adequate rainfall or sprinkler irrigation. Avoid tillage equipment (e.g., drags, harrows) which concentrates treated soil over seed furrow as seed damage could result.

Preemergence control of cocklebur, jimsonweed, and velvetleaf may be reduced if conditions such as low temperature or lack of soil moisture cause delayed or deep germination of weeds.

Early Postemergence Application in All Tillage Systems:

Rates: Apply 22 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre. Reduce the rate to 11 fluid ounces per treated acre if corn is growing on coarse textured soils (sand, loamy sand, and sandy loam).

Timing: Apply between corn emergence and the 5-leaf stage or 8 inches tall, whichever occurs first. Refer to Late Postemergence Applications if the sixth true leaf is emerging from whorl or corn is greater than 8 inches tall.

Late Postemergence Application:

Rate: Apply 11 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre.

Timing: Apply XtendiMax® With VaporGrip® Technology from 8 - 36 inch tall corn or 15 days before tassel emergence, whichever comes first. For best performance, apply when weeds are less than 3 inches tall.

Apply directed spray when corn leaves prevent proper spray.

11.5 Cotton

For directions for use with crops with Xtend Technology see the "CROPS WITH XTEND TECHNOLOGY" section of this label.

Preplant Application:

Apply up to 11 fluid ounces of XtendiMax® With VaporGrip® Technology per acre to control emerged broadleaf weeds prior to planting cotton in conventional or conservation tillage systems.

For best performance, apply XtendiMax® With VaporGrip® Technology when weeds are in the 2 - 4 leaf stage and rosettes are less than 2 inches across.

Following application of XtendiMax® With VaporGrip® Technology and a minimum accumulation of 1 inch of rainfall or overhead irrigation, allow a minimum of 21 days between treatment and planting per application of 11 fluid ounces per acre or less. This plant back interval must be observed prior to planting cotton.

Do not apply preplant to cotton west of the Rockies.

Do not make XtendiMax® With VaporGrip® Technology preplant applications to cotton in geographic areas with average annual rainfall less than 25 inches.

If applying a spring preplant treatment following application of a fall preplant (postharvest) treatment, then the combination of both treatments may not exceed 2 pounds acid equivalent per acre.

11.6 Grass Grown For Seed

Apply 11 - 22 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre on seedling grass after the crop reaches the 3 -5 leaf stage. Apply up to 44 fluid ounces of XtendiMax® With VaporGrip® Technology on well-established perennial grass. For best performance, apply XtendiMax® With VaporGrip® Technology when weeds are in the 2 - 4 leaf stage and rosettes are less than 2 inches across. Use the higher level of listed rate ranges when treating more mature weeds or dense vegetative growth.

To suppress annual grasses such as brome (downy and ripgut), rattail fescue, and windgrass, apply up to 44 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre in the fall or late summer after harvest and burning of established grass seed crops. Applications should be made immediately following the first irrigation when the soil is moist and before weeds have more than 2 leaves.

Do not apply XtendiMax® With VaporGrip® Technology after the grass seed crop begins to joint.

Refer to the Pasture, Hay, Rangeland, and General Farmstead section for grazing and feeding restrictions.

11.7 Proso Millet

For use only within Colorado, Nebraska, North Dakota, South Dakota, [Optional: **and Wyoming].**

XtendiMax® With VaporGrip® Technology combined with an appropriate tank-mix partner will provide control or suppression of the annual broadleaf weeds listed in **Section 13.**

11.8 Pasture, Hay, Rangeland, And General Farmstead (Noncropland)

XtendiMax® With VaporGrip® Technology is recommended for use on pasture, hay, rangeland, and general farmstead (non-cropland) (including fencerows and non-irrigation ditch banks) for control or suppression of broadleaf weed and brush species listed in Section 12.

XtendiMax® With VaporGrip® Technology may also be applied to non-cropland areas to control broadleaf weeds in noxious weed control programs, districts, or areas including broadcast or spot treatment of roadsides and highways, utilities, railroad, and pipeline rights-of-way. Noxious weeds must be recognized at the state level, but programs may be administered at state, county, or other level.

XtendiMax® With VaporGrip® Technology uses described in this section also pertain to grasses and small grains (forage sorghum, rye, sudangrass, or wheat) grown for grass, forage, fodder, hay and/or pasture use only. Grasses and small grains not grown for grass, forage, fodder, hay and/or pasture must comply with crop-specific uses in this label. Some perennial weeds may be controlled with lower rates of XtendiMax® With VaporGrip® Technology (refer to **Table 1**).

Rates and Timings

Refer to **Table 1** for rate selection based on targeted weed or brush species.

Rates above 44 fluid ounces of XtendiMax® With VaporGrip® Technology per acre are for spot treatments only. Spot treatment is defined as no more than a total of 1000 square feet of treated area per acre. Do not broadcast apply more than 44 fluid ounces per acre.

Retreatments may be made as needed; however, do not exceed a total of 44 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre during a growing season.

Grass grown for hay requires a minimum of 7-days between treatment and harvest.

Crop-Specific Restrictions

Do not apply more than 22 fluid ounces of XtendiMax® With VaporGrip® Technology per acre to small grains grown for pasture.

Newly seeded areas may be severely injured if more than 22 fluid ounces of XtendiMax® With VaporGrip® Technology is applied per acre.

Established grass crops growing under stress can exhibit various injury symptoms that may be more pronounced if herbicides are applied. Bentgrass, carpetgrass, buffalograss, and St. Augustin grass may be injured if more than 22 fluid ounces of XtendiMax® With VaporGrip® Technology is applied per acre. Usually colonial bent grasses are more tolerant than creeping types. Velvet grasses are most easily injured. Treatments will kill or injure alfalfa, clovers, lespedeza, wild winter peas, vetch, and other legumes.

Table 3 lists the timing restrictions for grazing or harvesting hay from treated fields. There are no grazing restrictions for animals other than lactating dairy animals.

Table 3. Timing Restrictions for Lactating Dairy Animals Following Treatment

XtendiMax® With VaporGrip® Technology Rate per Treated Acre (fluid ounces)	Days Before Grazing (days)	Days Before Hay Harvest (days)
Up to 22	7	37
Up to 44	21	51

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- **Spot Treatments:** XtendiMax® With VaporGrip® Technology may be applied to individual clumps or small areas of undesirable vegetation using handgun or similar types of application equipment. Apply diluted sprays to allow complete wetting (up to runoff) of foliage and stems.

Cut Surface Treatments:

XtendiMax® With VaporGrip® Technology may be applied as a cut surface treatment for control of unwanted trees and prevention of sprouts of cut trees.

Rate: Mix 1 part XtendiMax® With VaporGrip® Technology with 1 - 3 parts water to create the application solution. Use the lower dilution rate when treating difficult-to-control species.

- **For Frill or Girdle Treatments**: Make a continuous cut or a series of overlapping cuts using an axe to girdle tree trunk. Spray or paint the cut surface with the solution.
- **For Stump Treatments:** Spray or paint freshly cut surface with the water mix. The area adjacent to the bark should be thoroughly wet.

Applications For Control of Dormant Multiflora Rose:

XtendiMax® With VaporGrip® Technology can be applied when plants are dormant as an undiluted spot treatment directly to the soil or as a Lo-Oil basal bark treatment using an oil-water emulsion solution.

- **Spot treatments:** Spot treatment applications of XtendiMax® With VaporGrip® Technology should be applied directly to the soil as close as possible to the root crown but within 6 - 8 inches of the crown. On sloping terrain, apply XtendiMax® With VaporGrip® Technology to the uphill side of the crown. Do not apply when snow or water prevents applying XtendiMax® With VaporGrip® Technology directly to the soil. The use rate of XtendiMax® With VaporGrip® Technology depends on the canopy diameter of the multiflora rose.

  Examples: Use 0.34, 1.38, or 3.23 fluid ounces of XtendiMax® With VaporGrip® Technology respectively, for 5, 10, or 15 feet canopy diameters.

- **Lo-Oil basal bark treatments:** For Lo-Oil basal bark treatments, apply XtendiMax® With VaporGrip® Technology to the basal stem region from the ground line to a height of 12 - 18 inches. Spray until runoff, with special emphasis on covering the root crown. For best results, apply XtendiMax® With VaporGrip® Technology when plants are dormant. Do not apply after bud break or when plants are showing signs of active growth. Do not apply when snow or water prevents applying XtendiMax® With VaporGrip® Technology to the ground line.

  To prepare approximately 2 gallons of a Lo-Oil spray solution:

  1) Combine 1.5 gallons of water, 1 ounce of emulsifier, 22 fluid ounces of XtendiMax® With VaporGrip® Technology, and 2.5 pints of No. 2 diesel fuel.
  2) Adjust the amounts of materials used proportionately to the amount of final spray solution desired.

  Do not exceed 8 gallons of spray solution mix applied per acre, per year.

11.9 SMALL GRAINS

11.9.1 Small Grains Not Underseeded To Legumes (fall- and spring-seeded barley, oat, triticale and wheat)

Refer to the specific crop sections below for use rates. When treating difficult to control weeds such as kochia, wild buckwheat, cow cockle, prostrate knotweed, Russian thistle, and prickly lettuce or when dense vegetative growth occurs, use the 4.12 – 5.5 fluid ounces of XtendiMax® With VaporGrip® Technology per acre.

Timings: Apply XtendiMax® With VaporGrip® Technology before, during, or after planting small grains. See specific small grain crop uses below for maximum crop stage. For best performance, apply

XtendiMax® With VaporGrip® Technology when weeds are in the 2 - 3 leaf stage and rosettes are less than 2 inches across. Applying XtendiMax® With VaporGrip® Technology to small grains during periods of rapid growth may result in crop leaning. This condition is temporary and will not reduce crop yields.

Restrictions for small grain areas that are grazed or cut for hay are indicated in **Table 3** in Pasture, Hay, Rangeland, and General Farmstead section of this label.

11.9.2 Small Grains: Barley (fall- and spring-seeded)

Early season applications:

Apply 2.75 – 5.5 fluid ounces of XtendiMax® With VaporGrip® Technology to fall-seeded barley prior to the jointing stage. Apply 2.75 – 4.12 fluid ounces of XtendiMax® With VaporGrip® Technology before spring-seeded barley exceeds the 4-leaf stage.

Note: For spring barley varieties that are seeded during the winter months or later, follow the rates and timings given for spring-seeded barley.

Preharvest applications:

XtendiMax® With VaporGrip® Technology can be used to control weeds that may interfere with harvest of fall and spring-seeded barley. Apply 11 fluid ounces of XtendiMax® With VaporGrip® Technology per acre as a broadcast or spot treatment to annual broadleaf weeds when barley is in the hard dough stage and the green color is gone from the nodes (joints) of the stern. Best results will be obtained if application can be made when weeds are actively growing, but before weeds canopy.

Allow a minimum of 7 days between treatment and harvest. Do not use preharvest-treated barley for seed unless a germination test is performed on the seed with an acceptable result of 95% germination or better.

[Optional: Do not make preharvest applications in California.]

11.9.3 Small Grains: Oats (fall- and spring-seeded)

Early season applications:

Apply 2.75 – 5.5 fluid ounces of XtendiMax® With VaporGrip® Technology per acre to fall-seeded oat prior to the jointing stage. Apply 2.75 – 5.5 fluid ounces of XtendiMax® With VaporGrip® Technology before spring-seeded oat exceed the 5-leaf stage.

Do not tank mix XtendiMax® With VaporGrip® Technology with 2,4-D in oat.

Allow a minimum of 7 days between treatment and harvest.

11.9.4 Small Grains: Triticale (fall- and spring-seeded)

Early season applications:

Apply 2.75 – 5.5 fluid ounces of XtendiMax® With VaporGrip® Technology to triticale.

Early season applications to fall-seeded triticale must be made prior to the jointing stage.

Early season applications to spring-seeded triticale must be made before triticale reaches the 6-leaf stage.

11.9.5 Small Grains: Wheat (fall- and spring-seeded)

Early Season Applications:

Apply 2.75 – 5.5 fluid ounces of XtendiMax® With VaporGrip® Technology to wheat unless using one of the fall-seeded wheat specific programs below.

Early season applications to fall-seeded wheat must be made prior to the jointing stage.

Early season applications to spring-seeded wheat must be made before wheat exceeds the 6-leaf stage.

Early developing wheat varieties such as TAM 107, Madison, or Wakefield must receive application between early tillering and the jointing stage. Care should be taken in staging these varieties to be certain that the application occurs prior to the jointing stage.

Specific use programs for fall-seeded wheat only:

[Optional: XtendiMax® With VaporGrip® Technology may be used at 8.25 fluid ounces on fall-seeded wheat in Western Oregon as a spring application only.] In Colorado, Kansas, New Mexico, Oklahoma, and Texas, up to 11 fluid ounces of XtendiMax® With VaporGrip® Technology may be applied on fall-seeded wheat after it exceeds the 3-leaf stage for suppression of perennial weeds, such as field bindweed. Applications may be made in the fall following a frost but before a killing freeze.

Preharvest applications:

XtendiMax® With VaporGrip® Technology can be used to control weeds that may interfere with harvest of wheat. Apply 11 fluid ounces XtendiMax® With VaporGrip® Technology per acre as a broadcast or spot treatment to annual broadleaf weeds when wheat is in the hard dough stage and the green color is gone from the nodes (joints) of the stem. Best results will be obtained if application can be made when weeds are actively growing but before weeds canopy.

Allow a minimum of 7 days between treatment and harvest. Do not use preharvest-treated wheat for seed unless a germination test is performed on the seed with an acceptable result of 95% germination or better.

[Optional: Do not make preharvest applications in California.]

11.10 Sorghum

XtendiMax® With VaporGrip® Technology may be applied preplant, postemergence, or preharvest in sorghum to control many annual broadleaf weeds and to reduce competition from established perennial broadleaf weeds, as well as control their seedlings.

Do not graze or feed treated sorghum forage or silage prior to mature grain stage. If sorghum is grown for pasture or hay, refer to Pasture, Hay, Rangeland, and General Farmstead section of this label for specific grazing and feeding restrictions.

Do not apply XtendiMax® With VaporGrip® Technology to sorghum grown for seed production.

Preplant Application:

Up to 11 fluid ounces of XtendiMax® With VaporGrip® Technology may be applied per acre if applied at least 15 days before sorghum planting.

Postemergence Application:

Up to 11 fluid ounces of XtendiMax® With VaporGrip® Technology per acre may be applied after sorghum is in the spike stage (all sorghum emerged) but before sorghum is 15 inches tall. For best performance, apply XtendiMax® With VaporGrip® Technology when the sorghum crop is in the 3 - 5 leaf stage and weeds are small (less than 3 inches tall). Use drop pipes (drop nozzles) if sorghum is taller

than 8 inches. Keep the spray off the sorghum leaves and out of the whorl to reduce the likelihood of crop injury and to improve spray coverage of weed foliage. Applying XtendiMax® With VaporGrip® Technology to sorghum during periods of rapid growth may result in temporary leaning of plants or rolling of leaves. These effects are usually outgrown within 10 - 14 days. Delay harvest until 30 days after a preharvest treatment.

Preharvest uses in Texas and Oklahoma only: Up to 11 fluid ounces of XtendiMax® With VaporGrip® Technology per acre may be applied for weed suppression any time after the sorghum has reached the soft dough stage. An agriculturally approved surfactant may be used to improve performance (read Section 8.0 for tank mixing instructions). Delay harvest until 30 days after a preharvest treatment.

Split Application:

XtendiMax® With VaporGrip® Technology may be applied in split applications: preplant followed by postemergence or preharvest; or postemergence followed by preharvest. Do not exceed 11 fluid ounces per acre, per application or a total of 22 ounces per acre, per season.

11.11 Soybean

For directions for use with crops with Xtend Technology see the "CROPS WITH XTEND TECHNOLOGY" section of this label.

Preplant Applications:

Apply 5.5 -22 fluid ounces of XtendiMax® With VaporGrip® Technology per acre to control emerged broadleaf weeds prior to planting soybeans. Do not exceed 22 fluid ounces of XtendiMax® With VaporGrip® Technology per acre in a spring application prior to planting soybeans.

Following application of XtendiMax® With VaporGrip® Technology and a minimum accumulation of 1 inch rainfall or overhead irrigation, allow a minimum of 14 days between treatment and planting for applications of 11 fluid ounces per acre or less, and allow a minimum of 28 days between treatment and planting for applications of 22 fluid ounces per acre. These plant back intervals must be observed prior to planting soybeans or crop injury may occur.

Do not make XtendiMax® With VaporGrip® Technology preplant applications to soybeans in geographic areas with average annual rainfall less than 25 inches.

Preharvest Applications:

XtendiMax® With VaporGrip® Technology can be used to control many annual and perennial broadleaf weeds and control or suppress many biennial and perennial broadleaf weeds in soybean prior to harvest (refer to **Section 10**). Apply 11 - 44 fluid ounces of XtendiMax® With VaporGrip® Technology per acre as a broadcast or spot treatment to emerged and actively growing weeds after soybean pods have reached mature brown color and at least 75% leaf drop has occurred.

Do not harvest soybeans until 7 days after application.

Treatments may not kill weeds that develop from seed or underground plant parts, such as rhizomes or bulblets, after the effective period for XtendiMax® With VaporGrip® Technology. For seedling control, a follow-up program or other cultural practice could be instituted.

Do not use preharvest-treated soybean for seed unless a germination test is performed on the seed with an acceptable result of 95% germination or better.

Do not feed soybean fodder or hay following a preharvest application of XtendiMax® With VaporGrip® Technology.

[Optional: Do not make preharvest applications in California.]

11.12 Sugarcane

Apply XtendiMax® With VaporGrip® Technology for control of annual, biennial, or perennial broadleaf weeds listed in Section 11. Apply 11 - 33 fluid ounces of XtendiMax® With VaporGrip® Technology per acre for control of annual weeds, 22 - 44 fluid ounces for control of biennial weeds, and 44 fluid ounces for control or suppression of perennial weeds.

Use the higher level of listed rate ranges when treating dense vegetative growth.

A single retreatment may be made as needed, however, do not exceed a total of 88 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre during a growing season.

Timing: XtendiMax® With VaporGrip® Technology may be applied to sugarcane any time after weeds have emerged, but before the close-in stage of sugarcane. Applications of 44 fluid ounces of XtendiMax® With VaporGrip® Technology per acre made over the top of actively growing sugarcane may result in crop injury.

When possible, direct the spray beneath the sugarcane canopy to minimize the likelihood of crop injury. Using directed sprays will also help maximize the spray coverage of weed foliage.

Allow a minimum of 87 days between treatment and harvest.

11.13 Farmstead Turf (noncropland) and Sod Farms

Do not use on residential sites.

For use in general farmstead (noncropland) and sod farms, apply 4.12 – 44 fluid ounces of XtendiMax® With VaporGrip® Technology per acre to control or suppress growth of many annual, biennial, and some perennial broadleaf weeds commonly found in turf. XtendiMax® With VaporGrip® Technology will also suppress many other listed perennial broadleaf weeds and woody brush and vine species. Refer to Table 1 for rate recommendations based on targeted weed or brush species and growth stage.

Repeat treatments may be made as needed; however, do not exceed 44 fluid ounces of XtendiMax® With VaporGrip® Technology per acre, per growing season.

Apply 30 - 200 gallons of diluted spray per treated acre (3 - 17 quarts of water per 1,000 square feet), depending on density or height of weeds treated and on the type of equipment used.

To avoid injury to newly seeded grasses, delay application of XtendiMax® With VaporGrip® Technology until after the second mowing. Furthermore, applying more than 16 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre may cause noticeable stunting or discoloration of sensitive grass species such as bentgrass, carpetgrass, buffalograss, and St. Augustinegrass.

In areas where roots of sensitive plants extend, do not apply more than 5.5 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre on coarse-textured (sandy-type) soils, or in excess of 8 fluid ounces per treated acre on fine-textured soils. Do not make repeat applications in these areas for 30 days and until previous applications of XtendiMax® With VaporGrip® Technology have been activated in the soil by rain or irrigation.

12.0 CROPS WITH XTEND® TECHNOLOGY

COTTON WITH XTENDFLEX® TECHNOLOGY (INCLUDING BOLLGARD II® XTENDFLEX® COTTON, BOLLGARD® 3 XTENDFLEX® COTTON, OR XTENDFLEX® COTTON), ROUNDUP READY 2 XTEND® SOYBEAN, AND XTENDFLEX® SOYBEAN CONTAIN A PATENTED GENE THAT PROVIDES TOLERANCE TO DICAMBA, THE ACTIVE INGREDIENT IN THIS PRODUCT. THIS PRODUCT WILL CAUSE SEVERE CROP INJURY OR DESTRUCTION AND YIELD LOSS IF APPLIED TO COTTON AND SOYBEAN THAT ARE NOT DICAMBA TOLERANT, INCLUDING COTTON AND SOYBEAN WITH A TRAIT ENGINEERED TO CONFER TOLERANCE TO AUXIN HERBICIDES OTHER THAN

DICAMBA. FOLLOW THE REQUIREMENTS SET FORTH HEREIN TO PREVENT SEVERE CROP INJURY OR DESTRUCTION AND YIELD LOSS. CONTACT WITH FOLIAGE, GREEN STEMS, OR FRUIT OF CROPS, OR ANY DESIRABLE PLANTS THAT DO NOT CONTAIN A DICAMBA TOLERANCE GENE OR ARE NOT NATURALLY TOLERANT TO DICAMBA, COULD RESULT IN SEVERE PLANT INJURY OR DESTRUCTION.

Information on cotton with XtendFlex® Technology, Roundup Ready 2 Xtend® Soybean, and XtendFlex® Soybean can be obtained from your seed supplier or Monsanto representative. Cotton with XtendFlex® Technology, Roundup Ready 2 Xtend® Soybean, and XtendFlex® Soybean must be purchased from an authorized licensed seed supplier.

Note: Cotton with XtendFlex® Technology, Roundup Ready 2 Xtend® Soybean, and XtendFlex® Soybean and methods of controlling weeds and applying dicamba in a Cotton with XtendFlex® Technology, Roundup Ready 2 Xtend® Soybean, and XtendFlex® Soybean crop are protected under U.S. patent law. No license to use Cotton with XtendFlex® Technology, Roundup Ready 2 Xtend® Soybean, and XtendFlex® Soybean is granted or implied with the purchase of this herbicide product. Cotton with XtendFlex® Technology, Roundup Ready 2 Xtend® Soybean, and XtendFlex® Soybean are owned by Monsanto and a license must be obtained from Monsanto before using it. Contact your Authorized Monsanto Retailer for information on obtaining a license to Cotton with XtendFlex® Technology, Roundup Ready 2 Xtend® Soybean, and XtendFlex® Soybean.

12.1 Cotton with XtendFlex® Technology

DO NOT combine these instructions with other instructions in the "COTTON" Section of **this** label for use over crops that do not contain the dicamba tolerance trait.

TYPES OF APPLICATIONS: Burndown/Early Preplant; Preplant; At-Planting; Preemergence; Postemergence (In-crop)

USE INSTRUCTIONS
Apply this product in a minimum of 15 gallons of spray solution per acre as a broadcast application. For best performance, control weeds early when they are less than 4 inches. Timely application will improve control and reduce weed competition. Refer to the following table for maximum application rates of this product with cotton with XtendFlex® Technology.

Maximum Application Rates	
Combined total per year for all applications	88 fluid ounces per acre (2.0 lb. a.e. dicamba per acre)
Total of all Burndown/Early Preplant, Preplant, At-Planting, and Preemergence applications	44 fluid ounces per acre (1.0 lb. a.e. dicamba per acre)
Total of all in-crop applications up to mid-bloom stage or no more than 60 days after planting, whichever occurs first	44 fluid ounces per acre (1.0 lb. a.e. dicamba per acre)
Maximum In-crop, single application	22 fluid ounces per acre (0.5 lb. a.e. dicamba per acre)

a.e. – acid equivalent

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Refer to Table 1 for application rates for weed type and growth stage controlled by this product. Maximum in-crop application rate should be used when treating tough to control weeds, dense vegetative growth or weeds with a well-established root system.

Burndown/Early Preplant, Preplant, At-Planting, Preemergence
USE INSTRUCTIONS: This product may be used to control broadleaf weeds and may be applied before, during or immediately after planting cotton with XtendFlex® Technology. Refer to the "WEEDS CONTROLLED" section of this label for XtendiMax® With VaporGrip® Technology for specific weeds controlled.

RESTRICTIONS:

- The maximum combined quantity of this product that may be applied for all burndown/early preplant, preplant, at-planting, and preemergence applications is 44 fluid ounces (1.0 lb a.e. dicamba) per acre per season.
- The maximum application rate for a single, burndown/early preplant, preplant, at-planting, or preemergence application must not exceed 44 fluid ounces (1.0 lb a.e. dicamba) per acre.
- Do not apply less than 22 fluid ounces (0.5 lb a.e. dicamba) per acre.

Postemergence (In-crop)
USE INSTRUCTIONS: This product may be used to control broadleaf weeds in cotton with XtendFlex® Technology. In-crop applications of this product can be made up to mid-bloom stage or no more than 60 days after planting, whichever occurs first.

The maximum and minimum rate for any single, in-crop application is 22 fluid ounces (0.5 lb a.e. dicamba) per acre. Using the appropriate application rate may reduce the selection for resistant weeds. For best performance, control weeds early when they are less than 4 inches. To the extent permitted by applicable law, Monsanto Company does not warrant product performance of applications to labeled weeds greater than 4 inches in height. Sequential applications of this product may be necessary to control new flushes of weeds or on tough-to-control weeds. Allow at least 7 days between applications.

Postemergence applications of this product mixed with adjuvants may cause a leaf response to cotton with XtendFlex® Technology. The symptoms usually appear as necrotic spots on fully expanded leaves. EC-based products that are tank mixed with products containing dicamba may increase the severity of the leaf damage.

RESTRICTIONS:

- The combined total applied in-crop up to mid-bloom stage or no more than 60 days after planting, whichever occurs first, must not exceed 44 fluid ounces (1.0 lb a.e. dicamba) per acre and a maximum of two in-crop applications.
- The maximum single, in-crop application rate must not exceed 22 fluid ounces (0.5 lb a.e. dicamba).
- The combined total per year for all applications must not exceed 88 fluid ounces (2.0 lb a.e. dicamba) per acre. For example, if a preplant application of 44 fluid ounces (1.0 lb a.e. dicamba) per acre was made, then the combined total in-crop applications must not exceed 44 fluid ounces (1.0 lb a.e. dicamba) per acre.

12.2 Roundup Ready 2 Xtend® Soybean and XtendFlex® Soybean

DO NOT combine these instructions with other instructions in the "SOYBEAN" Section of **this** label for use over crops that do not contain the dicamba tolerance trait.

TYPES OF APPLICATIONS: Burndown/Early Preplant; Preplant; At-Planting; Preemergence; Postemergence (In-crop); Lay-By

USE INSTRUCTIONS
Apply this product in a minimum of 15 gallons of spray solution per acre as a broadcast application. For best performance, control weeds early when they are less than 4 inches. Timely application will improve control and reduce weed competition. Refer to the following table for maximum application rates of this product with Roundup Ready 2 Xtend® Soybean and XtendFlex® Soybean.

Maximum Application Rates	
Combined total per year for all applications	88 fluid ounces per acre (2.0 lb. a.e. dicamba per acre)
Total of all Burndown/Early Preplant, Preplant, At-Planting, and Preemergence applications	44 fluid ounces per acre (1.0 lb. a.e. dicamba per acre)
Total of all In-crop applications from emergence ~~up~~ prior to beginning bloom (R1 stage soybeans) or no more than 45 days after planting, whichever occurs first	44 fluid ounces per acre (1.0 lb. a.e. dicamba per acre)
Maximum In-crop, single application	22 fluid ounces per acre (0.5 lb. a.e. dicamba per acre)

a.e. – acid equivalent

Refer to Table 1 for application rates for weed type and growth stage controlled by this product. Maximum in-crop application rate should be used when treating tough to control weeds, dense vegetative growth or weeds with a well-established root system.

Burndown/Early Preplant, Preplant, At-Planting, Preemergence
USE INSTRUCTIONS: This product may be used to control broadleaf weeds and may be applied before, during or immediately after planting Roundup Ready 2 Xtend® Soybean and XtendFlex® Soybean. Refer to the "WEEDS CONTROLLED" section of this label for specific weeds controlled.

RESTRICTIONS:
- The maximum combined quantity of this product that may be applied for all burndown/early preplant, preplant, at-planting, and preemergence applications is 44 fluid ounces (1.0 lb a.e. dicamba) per acre per season.
- The maximum application rate for a single, burndown/early preplant, preplant, at-planting, or preemergence application must not exceed 44 fluid ounces (1.0 lb a.e. dicamba) per acre.
- Do not apply less than 22 fluid ounces (0.5 lb a.e. dicamba) per acre.

Postemergence (In-crop)
USE INSTRUCTIONS: This product may be used to control broadleaf weeds in Roundup Ready 2 Xtend® Soybean and XtendFlex® Soybean. In-crop applications of this product can be made ~~up~~ prior to beginning bloom (R1 stage soybeans) or no more than 45 days after planting, whichever occurs first.

The maximum and minimum rate for any single, in-crop application is 22 fluid ounces (0.5 lb a.e. dicamba) per acre. Using the appropriate application rate may reduce the selection for resistant weeds. For best performance, control weeds early when they are less than 4 inches. To the extent permitted by applicable law, Monsanto Company does not warrant product performance of applications to labeled weeds greater than 4 inches in height.

A second application of this product may be necessary to control new flushes of weeds and can be made ~~up~~ prior beginning bloom (R1 stage soybeans) or no more than ~~to~~ 45 days after planting, whichever occurs first. Allow at least 7 days between applications. For best results, apply XtendiMax® With VaporGrip® Technology after some weed re-growth has occurred.

Application of this product postemergence and under stressful environments may cause temporary loss of turgor, a response commonly described as leaf droop in Roundup Ready 2 Xtend® Soybean and XtendFlex® Soybean. Typically, affected plants recover in 1-3 days depending on the level of droop and environmental conditions.

RESTRICTIONS:

- The combined total application rate in-crop ~~up~~ prior to beginning bloom (R1 stage soybeans) or no more than 45 days after planting, whichever occurs first, must not exceed 44 fluid ounces (1.0 lb. a.e. dicamba) per acre a maximum of two in-crop applications.
- Do not make in-crop applications of this product during and after beginning bloom (R1 stage soybeans) or more than 45 days after planting.
- The maximum single, in-crop application rate must not exceed 22 fluid ounces (0.5 lb. a.e. dicamba) per acre. The combined total per year for all applications must not exceed 88 fluid ounces (2.0 lb. a.e. dicamba) per acre.

13.0 WEEDS CONTROLLED

General Weed List, Including ALS-, Glyphosate, and Triazine-Resistant Biotypes

Annuals

Alkanet
Amaranth, Palmer, Powell, Spiny
Aster, Slender
Bedstraw, Catchweed
Beggarweed, Florida
Broomweed, Common
Buckwheat, Tartary, Wild
Buffalobur
Burclover, California
Burcucumber
Buttercup, Corn, Creeping, Roughseed, Western Field
Carpetweed
Catchfly, Nightflowering
Chamomile, Corn
Chevil, Bur
Chickweed, Common
Clovers
Cockle, Corn, Cow, White
Cocklebur, Common
Copperleaf, Hophornbeam
Cornflower (Bachelor Button)
Croton, Tropic, Woolly
Daisy, English
Dragonhead, American
Eveningprimrose, Cutleaf
Falseflax, Smallseed
Fleabane, Annual
Flixweed
Fumitory
Goosefoot, Nettleleaf
Hempnettle
Henbit
Jacobs-Ladder
Jimsonweed
Knawel (German Moss)
Knotweed, Prostrate
Kochia
Ladysthumb
Lambsquarters Common
Lettuce, Miners, Prickly
Mallow, Common, Venice
Marestail (Horseweed)
Mayweed
Morningglory, Ivyleaf, Tall
Mustard, Black, Blue, Tansy, Treacle, Tumble, Wild, Yellowtops
Nightshade, Black, Cutleaf
Pennycress, Field (Fanweed, Frenchweed, Stinkweed)
Pepperweed, Virginia (Peppergrass)
Pigweed, Prostrate, Redroot (Carelessweed), Rough, Smooth, Tumble
Pineappleweed
Poorjoe
Poppy, Red-horned
Puncturevine
Purslane, Common
Pusley, Florida
Radish, Wild
Ragweed, Common, Giant (Buffaloweed), Lance-Leaf
Rocket, London, Yellow
Rubberweed, Bitter (Bitterweed)
Salsify
Senna, Coffee
Sesbania, Hemp
Shepherdpurse
Sicklepod
Sida, Prickly (Teaweed)
Smartweed, Green, Pennsylvania
Sneezeweed, Bitter
Sowthistle, Annual, Spiny
Spanish Needles
Spikeweed, Common
Spurge, Prostrate, Leafy
Spurry, Corn
Starbur, Bristly
Starwort, Little
Sumpweed, Rough
Sunflower, Common (Wild), Volunteer
Thistle, Russian
Velvetleaf
Waterhemp, Common, Tall
Waterprimrose, Winged
Wormwood

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Biennials

Burdock, Common
Carrot, Wild (Queen Anne's Lace)
Cockle, White
Eveningprimrose, Common
Geranium, Carolina
Gromwell
Knapweed, Diffuse, Spotted
Mallow, Dwarf
Plantain, Bracted
Ragwort, Tansy
Starthistle, Yellow
Sweetclover
Teasel
Thistle, Bull, Milk, Musk, Plumeless

Perennials

Alfalfa[1]
Artichoke, Jerusalem
Aster, Spiny, Whiteheath
Bedstraw, Smooth
Bindweed, Field, Hedge
Blueweed, Texas
Bursage, Woollyleaf[1] (Bur Ragweed, Povertyweed)
Buttercup, Tall
Campion, Bladder
Chickweed, Field, Mouseear
Chicory[1]
Clover[1], Hop
Dandelion[1], Common
Dock[1] Broadleaf (Bitterdock), Curly
Dogbane, Hemp
Dogfennel[1] (Cypressweed)
Fern, Bracken
Garlic, Wild
Goldenrod, Canada, Missouri
Goldenweed, Common
Hawkweed
Henbane, Black[1]
Horsenettle, Carolina
Ironweed
Knapweed, Black, Diffuse, Russian[1], Spotted
Milkweed, Climbing, Common, Honeyvine, Western Whorled
Nettle, Stinging
Nightshade, Silverleaf (White Horsenettle)
Onion, Wild
Plaintain, Broadleaf, Buckhorn
Pokeweed
Ragweed, Western
Redvine
Sericia Lespedeza
Smartweed, Swamp
Snakeweed, Broom
Sorrel[1], Red (Sheep Sorrel)
Sowthistle[1], Perennial
Spurge, Leafy
Sundrops
Thistle, Canada, Scotch
Toadflex, Dalmatian
Tropical Soda Apple
Trumpetcreeper (Buckvine)
Vetch
Waterhemlock, Spotted
Waterprimrose, Creeping
Woodsorrel[1], Creeping, Yellow
Wormwood, Absinth, Louisiana
Yankeeweed
Yarrow, Common[1]

[1] Noted perennials may be controlled using lower rates of **XtendiMax® With VaporGrip® Technology** than those recommended for other listed perennial weeds.

Woody Species

Alder
Ash
Aspen
Basswood
Beech
Birch
Blackberry[2]
Blackgum[2]
Cedar[2]
Cherry
Chinquapin
Cottonwood
Creosotebush[2]
Cucumbertree
Dewberry[2]
Dogwood[2]
Elm
Grape
Hawthorn (Thornapple)[2]
Hemlock
Hickory
Honeylocust
Honeysuckle
Hornbeam
Huckleberry
Huisache
Ivy, Poison
Kudzu
Locust, Black
Maple
Mesquite
Oak
Oak, Poison
Olive, Russian
Persimmon, Eastern
Pine
Plum, Sand (Wild Plum)[2]
Poplar
Rabbitbrush
Redcedar, Eastern[2]
Rose[2], McCartney, Multiflora
Sagebrush, Fringed[2]
Sassafras
Serviceberry
Spicebush
Spruce
Sumac
Sweetgum[2]
Sycamore
Tarbush
Willow
Witchhazel
Yaupon[2]
Yucca[2]

[2]Growth suppression only

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14.0 LIMIT OF WARRANTY AND LIABILITY

Monsanto Company warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes set forth in the Complete Directions for Use label booklet ("Directions") when used in accordance with those Directions under the conditions described therein. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, NO OTHER EXPRESS WARRANTY OR IMPLIED WARRANTY OF FITNESS FOR PARTICULAR PURPOSE OR MERCHANTABILITY IS MADE. This warranty is also subject to the conditions and limitations stated herein. Specifically, and without limiting the foregoing, MONSANTO MAKES NO RECOMMENDATION OR WARRANTY HEREIN REGARDING THE USE OF ANY PRODUCTS THAT MAY APPEAR ON THE WEBSITE REFERENCED IN THE TANK-MIXING INSTRUCTIONS HEREIN, REGARDLESS OF WHETHER SUCH PRODUCT IS USED ALONE OR IN A TANK MIX WITH XTENDIMAX® WITH VAPORGRIP® TECHNOLOGY. BUYER AND ALL USERS ARE SOLELY RESPONSIBLE FOR ANY LACK OF PERFORMANCE, LOSS, OR DAMAGE IN CONNECTION WITH THE USE OR HANDLING OF ANY SUCH PRODUCT ALONE OR IN A TANK MIX WITH XTENDIMAX® WITH VAPORGRIP® TECHNOLOGY.

Buyer and all users shall promptly notify this Company of any claims whether based in contract, negligence, strict liability, other tort or otherwise.

To the extent consistent with applicable law, buyer and all users are responsible for all loss or damage from use or handling which results from conditions beyond the control of this Company, including, but not limited to, incompatibility with products other than those set forth in the Directions, application to or contact with desirable vegetation, failure of this product to control weed biotypes which develop resistance to dicamba, unusual weather, weather conditions which are outside the range considered normal at the application site and for the time period when the product is applied, as well as weather conditions which are outside the application ranges set forth in the Directions, application in any manner not explicitly set forth in the Directions, moisture conditions outside the moisture range specified in the Directions, or the presence of products other than those set forth in the Directions in or on the soil, crop or treated vegetation.

This Company does not warrant any product reformulated or repackaged from this product except in accordance with this Company's stewardship requirements and with express written permission from this Company.

For in-crop (over-the-top) uses on crops with Xtend® Technology, crop safety and weed control performance are not warranted by Monsanto when this product is used in conjunction with "brown bag" or "bin run" seed saved from previous year's production and replanted.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE LIMIT OF THE LIABILITY OF THIS COMPANY OR ANY OTHER SELLER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT (INCLUDING CLAIMS BASED IN CONTRACT, NEGLIGENCE, STRICT LIABILITY, OTHER TORT OR OTHERWISE) SHALL BE THE PURCHASE PRICE PAID BY THE USER OR BUYER FOR THE QUANTITY OF THIS PRODUCT INVOLVED, OR, AT THE ELECTION OF THIS COMPANY OR ANY OTHER SELLER, THE REPLACEMENT OF SUCH QUANTITY, OR, IF NOT ACQUIRED BY PURCHASE, REPLACEMENT OF SUCH QUANTITY. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, IN NO EVENT SHALL THIS COMPANY OR ANY OTHER SELLER BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES.

Upon opening and using this product, buyer and all users are deemed to have accepted the terms of this LIMIT OF WARRANTY AND LIABILITY which may not be varied by any verbal or written agreement. If terms are not acceptable, return at once unopened.

Bollgard II®, Bollgard®, Degree Xtra®, Field Master®, Harness®, Roundup Ready®, Roundup Ready 2 Xtend®, Roundup PowerMAX®, RT 3®, Roundup WeatherMAX®, XtendiMax®, XtendFlex® and

VaporGrip® are registered trademarks of Monsanto Technology LLC. All other trademarks are the property of their respective owners.

EPA Reg. No. 524-617

EPA Establishment No. [insert appropriate est. no.]

Lot number [insert appropriate lot number]

Net contents [insert net contents]

Packed for:
MONSANTO COMPANY
800 N. Lindbergh Blvd.
ST. LOUIS, MISSOURI, 63167 U.S.A.

© [DATE]

Message

From: MARVIN, THOMAS [AG/1920] [thomas.marvin@bayer.com]
Sent: 10/15/2018 12:54:19 PM
To: Baris, Reuben [Baris.Reuben@epa.gov]; Messina, Edward [Messina.Edward@epa.gov]; Kenny, Daniel [Kenny.Dan@epa.gov]
Subject: Revised Public Interest Document for 524-617
Attachments: 50701001_Dicamba.PID.October.2018_RD1869.pdf; 50701001_Appendix1_RD1869.pdf; 50701001_Appendix2_RD1869.pdf

Please find attached a courtesy copy of a revised Public Interest Document submitted on Friday.

Tom

Tom Marvin
Director, Federal Regulatory Affairs
1300 I Street, NW
Washington, DC 20005
Cell: 202-676-7846
Desk: 202-383-2851

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If improper activity or use is suspected, all available information may be used by the Company for possible disciplinary action, prosecution, civil claim or any remedy or lawful purpose.

Message

From: MARVIN, THOMAS [AG/1920] [thomas.marvin@bayer.com]
Sent: 10/5/2018 8:21:56 PM
To: Baris, Reuben [Baris.Reuben@epa.gov]
CC: tina.bhakta@bayer.com
Subject: RE: Label comments
Attachments: MASTER LABEL 524-617_10052018.DiscussionDraft.pdf

Ruben,

Please find a further revised discussion draft based on your comments sent below. Happy to discuss at any time if you have any questions.

Thanks,

Tom

Tom Marvin
Director, Federal Regulatory Affairs
1300 I Street, NW
Washington, DC 20005
Cell: 202-676-7846
Desk: 202-383-2851

From: Baris, Reuben [mailto:Baris.Reuben@epa.gov]
Sent: Wednesday, October 03, 2018 4:47 PM
To: MARVIN, THOMAS [AG/1920] <thomas.marvin@bayer.com>
Cc: tina.bhakta@bayer.com
Subject: Label comments

Tom and Tina,
Attached are my team's comments on the xtendimax label (EPA reg no. 524-617). Let us know if you have any questions.
Reuben

REUBEN BARIS | PRODUCT MANAGER, TEAM 25 | HERBICIDE BRANCH
U.S. ENVIRONMENTAL PROTECTION AGENCY, OFFICE OF PESTICIDE PROGRAMS | (703) 305-7356

From: MARVIN, THOMAS [AG/1920] [mailto:thomas.marvin@bayer.com]
Sent: Tuesday, October 02, 2018 2:51 PM
To: Baris, Reuben <Baris.Reuben@epa.gov>
Subject: submission copy

Reuben: Please find attached a copy of the R350 submission we completed today.

Tom

Tom Marvin
Director, Federal Regulatory Affairs
1300 I Street, NW
Washington, DC 20005
Cell: 202-676-7846

Desk: 202-383-2851

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Anyone using or viewing this system is further advised that the use of this system may be recorded and the information contained herein maybe monitored, retrieved and reviewed if, in the company's sole discretion, there is a business reason to do so.
If improper activity or use is suspected, all available information may be used by the Company for possible disciplinary action, prosecution, civil claim or any remedy or lawful purpose.

MASTER LABEL FOR EPA REG. NO. 524-617

RESTRICTED USE PESTICIDE

For retail sale to and use only by Certified Applicators

This labeling expires on 11/09/20XX, unless the U.S. EPA determines before that date that off-site incidents are not occurring at unacceptable frequencies or levels. Do not use or distribute this product after 11/09/20XX, unless you visit www.xtendimaxapplicationrequirements.com and can verify that EPA has amended this expiration date.

Primary Brand Name:

M1768 Herbicide

Alternate Brand Name:

Xtendimax® With VaporGrip® Technology

DICAMBA	GROUP	4	HERBICIDE

ACTIVE INGREDIENT:

Diglycolamine salt of dicamba (3,6-dichloro-*o*-anisic acid)* 42.8%
OTHER INGREDIENTS: 57.2%

TOTAL: 100.0%
* contains 29.0%, 3,6-dichloro-*o*-anisic acid (2.9 pounds acid equivalent per U.S. gallon or 350 grams per liter).

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RESTRICTED USE PESTICIDE

For retail sale to and use only by Certified Applicators

XtendiMax® With VaporGrip® Technology

Complete Directions for Use

This labeling expires on 11/09/20XX, unless the U.S. EPA determines before that date that off-site incidents are not occurring at unacceptable frequencies or levels. Do not use or distribute this product after 11/09/20XX, unless you visit www.xtendimaxapplicationrequirements.com and can verify that EPA has amended this expiration date.

EPA Reg. Number: 524-617

For weed control in asparagus, conservation reserve programs, corn, cotton, fallow croplands, general farmstead (noncropland), sorghum, grass grown for seed, hay, proso millet, pasture, rangeland, small grains, sod farms and farmstead turf, soybean, sugarcane, cotton with XtendFlex Technology, Roundup Ready 2 Xtend Soybean, and XtendFlex Soybean.

DICAMBA	GROUP	4	HERBICIDE

This label supersedes any previously issued labeling for this product, including previously issued supplemental labeling.

XtendiMax® With VaporGrip® Technology is approved by U.S. EPA for all uses specified on this label in the following states, subject to county restriction as noted: Alabama, Arkansas, Arizona, Colorado, Delaware, Florida (excluding Palm Beach County), Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Michigan, Minnesota, Mississippi, Missouri, Nebraska, New Jersey, New Mexico, New York, North Carolina, North Dakota, Oklahoma, Ohio, Pennsylvania, South Carolina, South Dakota, Tennessee (excluding Wilson County), Texas, Virginia, West Virginia, Wisconsin.

Check the registration status of each product in each state before using.

READ THE ENTIRE LABEL FOR **XTENDIMAX® WITH VAPORGRIP® TECHNOLOGY**
BEFORE PROCEEDING WITH THE USE DIRECTIONS CONTAINED IN THIS LABEL

READ AND FOLLOW ALL APPLICABLE DIRECTIONS, RESTRICTIONS, AND PRECAUTIONS ON THE CONTAINER LABEL AND BOOKLET AND WWW.XTENDIMAXAPPLICATIONREQUIREMENTS.COM.

Read the "LIMIT OF WARRANTY AND LIABILITY" statement at the end of the label before buying or using. If terms are not acceptable, return at once unopened.

Net contents:

EPA Establishment No.:

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1.0 INGREDIENTS

ACTIVE INGREDIENT:

Diglycolamine salt of dicamba (3,6-dichloro-*o*-anisic acid)* 42.8%
OTHER INGREDIENTS: 57.2%

TOTAL:..... 100.0%
* contains 29.0%, 3,6-dichloro-*o*-anisic acid (2.9 pounds acid equivalent per U.S. gallon or 350 grams per liter).

DICAMBA	GROUP	4	HERBICIDE

2.0 IMPORTANT PHONE NUMBERS

1. FOR PRODUCT INFORMATION OR ASSISTANCE IN USING THIS PRODUCT, CALL TOLL-FREE, 1-800-332-3111.
2. IN CASE OF AN EMERGENCY INVOLVING THIS HERBICIDE PRODUCT, OR FOR MEDICAL ASSISTANCE, CALL COLLECT, DAY OR NIGHT, (314)-694-4000.

IN CASE OF SPILL:

Steps to be taken in case material is released or spilled:

Dike and contain the spill with inert material (sand, earth, etc.) and transfer liquid and solid diking material to separate containers for disposal. Remove contaminated clothing, and wash affected skin areas with soap and water. Wash clothing before re-use. Keep the spill out of all sewers and open bodies of water.

3.0 PRECAUTIONARY STATEMENTS

3.1 Hazards to Humans and Domestic Animals

Keep out of reach of children.

CAUTION!

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Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

FIRST AID	
IF IN EYES	• Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
IF SWALLOWED:	• Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give anything by mouth to an unconscious person.
IF ON SKIN OR CLOTHING:	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 to 20 minutes.

	• Call a poison control center or doctor for treatment advice.
• Have the product container or label with you when calling a poison control center or doctor, or going for treatment. • You can call **(314) 694-4000**, collect day or night, for emergency medical treatment information. • This product is identified as **XtendiMax® With VaporGrip® Technology, EPA Registration No. 524-617.**	

PERSONAL PROTECTIVE EQUIPMENT (PPE)

All mixers, loaders, applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks

See "Engineering Controls Statement" for additional requirements.
Follow the manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

ENGINEERING CONTROLS STATEMENT

When handlers use closed systems, or enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

IMPORTANT: When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for "all mixers, loaders, applicators and other handlers" and have such PPE immediately available for use in an emergency, such as a spill or equipment breakdown.

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

3.2 Environmental Hazards

Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters or rinsate. Apply this product only as directed on the label.

This chemical is known to leach through soil into ground water under certain conditions as a result of agricultural use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.

Ground and Surface Water Protection

Point source contamination - To prevent point source contamination, do not mix or load this pesticide product within 50 feet of wells (including abandoned wells and drainage wells), sink holes, perennial or intermittent streams and rivers, and natural or impounded lakes and reservoirs. Do not apply pesticide

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product within 50 feet of wells. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pad or properly diked mixing/loading areas as described below.

Mixing, loading, rinsing, or washing operations performed within 50 feet of a well are allowed only when conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be on or move across the pad. The pad must be self-contained to prevent surface water flow over or from the pad. The pad capacity must be maintained at 110% that of the largest pesticide container or application equipment used on the pad and have sufficient capacity to contain all product spills, equipment or container leaks, equipment wash waters, and rainwater that may fall on the pad. The containment capacity does not apply to vehicles delivering pesticide shipments to the mixing/loading site. States may have in effect additional requirements regarding wellhead setbacks and operational containment.

Care must be taken when using this product to prevent: a) back siphoning into wells, b) spills or c) improper disposal of excess pesticide, spray mixtures or rinsates. Check valves or anti-siphoning devices must be used on all mixing equipment.

Movement by surface runoff or through soil - Do not apply under conditions which favor runoff. Do not apply to impervious substrates such as paved or highly compacted surfaces in areas with high potential for ground water contamination. Ground water contamination may occur in areas where soils are permeable or coarse and ground water is near the surface. Do not apply to soils classified as sand with less than 3% organic matter and where ground water depth is shallow. To minimize the possibility of ground water contamination, carefully follow application rate recommendations as affected by soil type in the Crop Specific Information section of this label.

Movement by water erosion of treated soil - Do not apply or incorporate this product through any type of irrigation equipment nor by flood or furrow irrigation. Ensure treated areas have received at least one-half inch rainfall (or irrigation) before using tailwater for subsequent irrigation of other fields.

Endangered Species Concerns
The use of any pesticide in a manner that may kill or otherwise harm an endangered species or adversely modify their habitat is a violation of federal law.

Prior to application of this product you must consult U.S. EPA's Bulletins Live platform at http://www.epa.gov/espp/ or call 1-844-447-3813. You must comply with the applicable endangered species protection measures, if any, that are required for the location where you are applying this product. If there are endangered species protection measures that are required for the location where you are applying this product, they will appear in U.S. EPA's Bulletins Live platform.

3.3 Physical or Chemical Hazards

Do not store or heat near oxidizing agents, hazardous chemical reaction may occur.

4.0 DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling. This product can only be used in accordance with the Directions for Use on this label. This labeling must be in the user's possession during application.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulations.

This is a restricted use pesticide.

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4.1 Training

Prior to applying this product in the 2019 growing season and each growing season thereafter, all applicator(s) applying this product must complete dicamba or auxin-specific training. If training is available and required by the state where the applicator intends to apply this product, the applicator must complete that training. If the state where the application is intended does not require auxin or dicamba-specific training, then the applicator must complete dicamba or auxin-specific training provided by one of the following sources: a) a registrant of a dicamba product approved for in-crop use with dicamba-tolerant crops, or b) a state or state-authorized provider.

4.2 Record Keeping

Record keeping is required for applications of this product. **The certified applicator must keep the following records for a period of two years**; records must be generated as soon as practical but no later than 72 hours~~14 days~~ after application and a record must be kept for each application of Xtendimax with VaporGrip Technology. Records must be made available to State Pesticide Control Official(s), USDA, and EPA upon request. An example form summarizing record keeping requirements can be found on www.xtendimaxapplicationrequirements.com.

1. All Items required by 7 CFR Part 110 (RECORDKEEPING ON RESTRICTED USE PESTICIDES BY CERTIFIED APPLICATORS) including:
    a. The brand or product name
    b. The EPA registration number
    c. The total amount applied
    d. The month, day, and year of application
    e. The location of the application
    f. The crop, commodity, stored product, or site of application
    g. The size of treated area
    h. The name of the certified applicator
    i. The certification number of the certified applicator
2. Training: Date and provider of required training completed and proof of completion.
3. Receipts of Purchase: Receipts or copies for the purchase of this product.
4. Product Label: A copy of this product label, and any state special local needs label that supplements this label.
5. Crop Planting Date: Record of the date at which the crop was planted.
6. Buffer Requirement: Record of the buffer distance calculation and any areas included within the buffer distance calculations as allowed in Section 9.1.4.a.
7. Sensitive Crops Awareness: Record that a sensitive crop registry was consulted if available; and surveying adjacent fields and document the crops/areas surrounding the field prior to application. At a minimum, records must include the name of the sensitive crop registry and the date it was consulted and documentation of adjacent crops/areas and the date the survey was conducted (read Section 9.1.4.b for additional information).
8. Start and Finish Times of Each Application: Record of the time at which the application started and the time when the application finished.
9. Application Timing: Record of the type of application (for example: pre-emergence, post-emergence) and number of days after planting if post-emergence.
10. Air Temperature: Record of the air temperature in degrees Fahrenheit at the start and completion of each application.
11. Wind Speed and Direction: Record of the wind speed and direction (the direction from which the wind is blowing) at boom height at the start and completion of each application of this product (Read Section 9.1.1 for information on wind speed).
12. Nozzle and Pressure: Record of the spray nozzle manufacturer/brand, type, orifice size, and operating pressure used during each application of this product (Read Section 9.1.1 for information on nozzles and pressures.)

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13. Tank Mix Products: Record of the brand names and EPA registration numbers (if available) for all products (pesticides, adjuvants, and other products) that were tank mixed with this product for each application (Read Section 8.0 for more information on tank mixing.)
14. Spray System Cleanout: Record of compliance with the section of this label titled Section 9.5: Proper Spray System Equipment Cleanout. At a minimum, records must include the confirmation that the spray system was clean before using this product and that the post-application cleanout was completed in accordance with Section 9.5.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about Personal Protective Equipment (PPE), and restricted-entry intervals. The requirements in this box only apply to uses of this product that are covered by the WPS.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 24 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as, plants, soil, or water is:

- Coveralls worn over short-sleeved shirt and short pants
- Chemical-resistant footwear plus socks
- Waterproof gloves
- Chemical-resistant headgear for overhead exposure
- Protective eyewear

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Do not enter or allow people (or pets) to enter the treated area until sprays have dried. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Do not enter or allow other people or pets to enter until sprays have dried.

5.0 STORAGE AND DISPOSAL

Proper pesticide storage and disposal are essential to protect against exposure to people and the environment due to leaks and spills, excess product or waste, and vandalism. Do not allow this product to contaminate water, foodstuffs, feed or seed by storage and disposal. Open dumping is prohibited. This product may not be mixed, loaded, or used within 50 feet of all wells including abandoned wells, drainage wells, and sinkholes. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pad or properly diked mixing/loading areas as described above

5.1 Pesticide Storage

Groundwater contamination may be reduced by diking and flooring of permanent liquid bulk storage sites with an impermeable material. Spillage or leakage should be contained and absorbed with clay granules, sawdust, or equivalent material for disposal.
Store in original container in a well-ventilated and away from food, pet food, feed, seed, fertilizers, and veterinary supplies. Avoid cross-contamination with other pesticides. Keep container closed to prevent spills and contamination.

5.2 Pesticide Disposal

To avoid wastes, use all material in this container, including rinsate, by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide

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disposal program. Such programs are often run by state or local governments or by industry. All disposal must be in accordance with applicable federal, state and local regulations and procedures.
[*Alternate PESTICIDE DISPOSAL statement for transport vehicles only:* To avoid wastes, empty as much product from this transport vehicle as possible for repackaging or use in accordance with label directions. If wastes cannot be avoided, offer remaining product or rinsate to a waste disposal facility or pesticide disposal program. All disposal must be in accordance with applicable federal, state and local regulations and procedures.]

5.3 Container Handling and Disposal

[*Optional label statement if applicable*: See container label for container handling and disposal instructions and refilling limitations.]

[*CONTAINER HANDLING AND DISPOSAL STATEMENTS AND REFILLING LIMITATIONS FOR CONTAINER LABELS*]

[*CONTAINER HANDLING AND DISPOSAL STATEMENT AND REFILLING LIMITATION FOR NONREFILLABLE RIGID CONTAINERS OF LESS THAN 1-GALLON CAPACITY*]

Nonrefillable container. Do not reuse or refill this container.

[*Alternate container statement:* Nonrefillable container. Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state.]

Triple rinse this container promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Then offer this container for recycling, if available. If recycling is not available, dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.

[*Alternate container disposal statement:* Once properly rinsed, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or Monsanto at 1-800-ROUNDUP (1-800-768-6387). If recycling is not available, dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.]

[*CONTAINER HANDLING AND DISPOSAL STATEMENT AND REFILLING LIMITATION FOR NONREFILLABLE RIGID PLASTIC 2.5-GALLON CONTAINERS AND OTHER NONREFILLABLE CONTAINERS OF GREATER THAN 1-GALLON BUT EQUAL TO OR LESS THAN 5-GALLON CAPACITY*]

Nonrefillable container. Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state.

[*Alternate container statement:* Nonrefillable container. Do not reuse or refill this container.]

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Triple rinse or pressure rinse (or equivalent) this container promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Once properly rinsed, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. [*Optional container disposal statement:* To find the nearest site, contact your chemical dealer or Monsanto at 1-800-ROUNDUP (1-800-768-6387)]. If recycling is not available, dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.

[*Alternate container disposal statement:* Then offer this container for recycling, if available. If recycling is not available, dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.]

[*CONTAINER HANDLING AND DISPOSAL STATEMENT AND REFILLING LIMITATION FOR NONREFILLABLE RIGID PLASTIC 30-GALLON CONTAINERS AND OTHER NONREFILLABLE CONTAINERS OF GREATER THAN 5-GALLON CAPACITY*]

Nonrefillable container. Do not reuse or refill this container.

[*Alternate container statement:* Nonrefillable container. Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state.]

Triple rinse or pressure rinse (or equivalent) this container promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Once properly rinsed, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. [*Alternate container disposal statement:* To find the nearest site, contact your chemical dealer or Monsanto at 1-800-ROUNDUP (1-800-768-6387)]. If recycling is not available,

dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.

[*Alternate container disposal statement:* Then offer the container for recycling, if available. If recycling is not available, dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.]

[*Optional container label statement:* Return Properly Rinsed Container to Monsanto for Recycling Contact: 1-800-ROUNDUP (1-800-768-6387)]

[*CONTAINER HANDLING AND DISPOSAL STATEMENT AND REFILLING LIMITATION FOR ALL REFILLABLE CONTAINERS, EXCEPT TRANSPORT VEHICLES*]

Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose.

Cleaning this container before refilling is the responsibility of the refiller. Cleaning this container before final disposal is the responsibility of the person disposing of the container.

To clean this container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer this container for recycling, if available.

[*Optional container disposal statement:* To obtain information about recycling refillable containers, contact Monsanto Company at 1-800-ROUNDUP (1-800-768-6387)]

[*Optional container label statement:* Return Properly Rinsed Container to Monsanto for Recycling, Call 1-800-ROUNDUP (1-800-768-6387)]

[*CONTAINER HANDLING AND DISPOSAL STATEMENT FOR ALL TRANSPORT VEHICLES AS DEFINED IN 40 CFR 156.3]*

THIS LABEL FOR USE WITH TRANSPORT VEHICLES ONLY

Emptied container retains vapor and product residue. Observe all precautions stated on this label until the container is cleaned, reconditioned or destroyed. Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, and worn-out threads and closures. Clean thoroughly before reuse for transportation of a material of different composition or before retiring this transport vehicle from service.

[Alternative label statement: NET CONTENTS: See Bill of Lading]

[Alternative label statement: LOT: See Bill of Lading]

[Alternative label statement: For Net Contents and Lot Number, see Bill of Lading]

6.0 PRODUCT INFORMATION

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XtendiMax® With VaporGrip® Technology is approved by U.S. EPA for all uses specified on this label in the following states, subject to county restriction as noted: Alabama, Arkansas, Arizona, Colorado, Delaware, Florida (excluding Palm Beach County), Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Michigan, Minnesota, Mississippi, Missouri, Nebraska, New Jersey, New Mexico, New York, North Carolina, North Dakota, Oklahoma, Ohio, Pennsylvania, South Carolina, South Dakota, Tennessee (excluding Wilson County), Texas, Virginia, West Virginia, Wisconsin.

Additional state restrictions and requirements may apply. The applicator must comply with any additional state requirements and restrictions.

This product is a water-soluble formulation intended for control and suppression of many annual, biennials, and perennial broadleaf weeds, as well as woody brush and vines listed in the WEEDS CONTROLLED section of this label. This product may be used for control of these weeds in asparagus, corn, cotton, conservation reserve programs, fallow cropland, grass grown for seed, hay, proso millet, pasture, rangeland, general farmstead (noncropland), small grains, sod farms and farmstead turf, sorghum, soybean, sugarcane, Cotton with XtendFlex Technology, Roundup Ready 2 Xtend Soybean, and XtendFlex Soybean.

XtendiMax® With VaporGrip® Technology is a contact, systemic herbicide, which can have moderate residual control on small seeded broadleaf weeds, including waterhemp, lambsquarters and Palmer pigweed, depending on rainfall and soil type.

XtendiMax® With VaporGrip® Technology is readily absorbed by plants through shoot and root uptake, translocates throughout the plant's system, and accumulates in areas of active growth. XtendiMax® With VaporGrip® Technology interferes with the plant's growth hormones (auxins) resulting in death of many broadleaf weeds.

Failure to properly clean the entire spray system can result in inadvertent contamination of the spray system. You must ensure that the spray system used to apply this product is clean before using this product.

Rainfast period: Rainfall or irrigation occurring within 4 hours after postemergence applications may reduce the effectiveness of this product.

Refer to the CROP-SPECIFIC INFORMATION and CROPS WITH XTEND TECHNOLOGY sections for application timing and other crop-specific details.

6.1 Restrictions

The applicator must read the entire label, including product labeling and follow all restrictions for XtendiMax® With VaporGrip® Technology. Restrictions included, but are not limited to:

- DO NOT APPLY THIS PRODUCT AERIALLY.
- DO NOT TANK MIX WITH PRODUCTS CONTAINING AMMONIUM SALTS SUCH AS AMMONIUM SULFATE (AMS) AND UREA AMMONIUM NITRATE. Small quantities of AMS can greatly increase the volatility potential of dicamba. Read the TANK MIXING INSTRUCTIONS of this label (Section 8.0) for instructions regarding other tank mix products.
- DO NOT APPLY TO CROPS UNDER STRESS DUE TO LACK OF MOISTURE, HAIL DAMAGE, FLOODING, HERBICIDE INJURY, MECHANICAL INJURY, INSECTS, OR WIDELY FLUCTUATING TEMPERATURES AS INJURY MAY RESULT.
- DO NOT APPLY THROUGH ANY TYPE OF IRRIGATION EQUIPMENT. DO NOT TREAT IRRIGATION DITCHES OR WATER USED FOR CROP IRRIGATION OR DOMESTIC PURPOSES.

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- DO NOT MAKE APPLICATION OF THIS PRODUCT IF RAIN THAT MAY EXCEED SOIL FIELD CAPACITY AND RESULT IN SOIL RUNOFF IS EXPECTED IN THE NEXT 24 HOURS

Review the entire label including, specific crop use direction sections for additional restrictions.

7.0 WEED RESISTANCE MANAGEMENT

DICAMBA	GROUP	4	HERBICIDE

Dicamba mimics auxin (a plant hormone) resulting in a hormone imbalance in sensitive plants that interferes with normal cell division, cell enlargement, and protein synthesis. Dicamba active ingredient is a Group 4 herbicide based on the mode of action classification system of the Weed Science Society of America. Any weed population can contain plants naturally resistant to Group 4 herbicides. Weed species resistant to Group 4 herbicides can be effectively managed utilizing another herbicide from a different Group, or by using other cultural or mechanical practices.

7.1 Weed Management Practices

Certain agronomic practices can delay or reduce the likelihood that resistant weed populations will develop and can be utilized to manage weed resistance once it occurs.

Do not use less than the labeled rate of this product in a single application. Using the appropriate application rate can minimize the selection for resistant weeds.

Proactively implementing diversified weed control strategies to minimize selection for weed populations resistant to one or more herbicides is a best practice. A diversified weed management program may include the use of multiple herbicides with different sites of action and overlapping weed spectrum with or without tillage operations and/or other cultural practices. Research has demonstrated that using the labeled rate and directions for use is important to delay the selection for resistance.

The continued effectiveness of this product depends on the successful implementation of a weed resistance management program.

To aid in the prevention of developing weeds resistant to this product:

- Scout fields before application to ensure herbicides and rates will be appropriate for the weed species and weed sizes present.
- Start with a clean field, using either a burndown herbicide application or tillage.
- Control weeds early when they are relatively small (less than 4 inches).
- Apply full rates of XtendiMax® With VaporGrip® Technology for the most difficult to control weed in the field at the specified time (correct weed size) to minimize weed escapes.
- Avoid tank mixtures with other herbicides that reduce the efficacy of this product (through antagonism), or with ones that encourage application rates of this product below those specified on this label.
- Scout fields after application to detect weed escapes or shifts in weed species.
- Control weed escapes before they reproduce by seed or proliferate vegetatively.
- Report any incidence of non-performance of this product against a particular weed species to your Monsanto retailer or representative or call 1-844-RRXTEND (1-844-779-8363).
- If resistance is suspected, treat weed escapes with an herbicide having a site of action other than Group 4 and/or use non-chemical methods to remove escapes, as practical, with the goal of preventing further seed production.

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Additionally, users should follow as many of the following herbicide resistance management practices as is practical:

- Use a broad spectrum soil-applied herbicide with other sites of action as a foundation in a weed control program.
- Utilize sequential applications of herbicides with alternative sites of action.
- Rotate the use of this product with non-Group 4 herbicides.
- Avoid making more than two applications of dicamba and any other Group 4 herbicides within a single growing season unless mixed with an herbicide with a different mechanism of action with an overlapping spectrum for the difficult to control weeds.
- Incorporate non-chemical weed control practices, such as mechanical cultivation, crop rotation, cover crops and weed-free crop seeds, as part of an integrated weed control program.
- Use good agronomic principles that enhance crop development and crop competitiveness.
- Thoroughly clean plant residues from equipment before leaving fields suspected to contain resistant weeds.
- Manage weeds in and around fields, during and after harvest to reduce weed seed production.

Contact the local agricultural extension service, Monsanto representative, agricultural retailer or crop consultant for further guidance on weed control practices as needed.

7.2 Management of Dicamba-Resistant Biotypes

Appropriate testing is critical in order to determine if a weed is resistant to dicamba. Contact your Monsanto representative to determine if resistance in any particular weed biotype has been confirmed in your area, or visit on the Internet www.weedresistancemanagement.com or www.weedscience.org.

Monsanto Company is not responsible for any losses that result from the failure of this product to control dicamba-resistant weed biotypes.

The following good agronomic practices can reduce the spread of confirmed dicamba-resistant biotypes:

- If a naturally occurring resistant biotype is present in your field, this product may be tank-mixed or applied sequentially with an appropriately labeled herbicide with a different mode of action to achieve control (read Section 8.0 for more information on tank mixing).
- Cultural and mechanical control practices (e.g., crop rotation or tillage) can also be used as appropriate.
- Scout treated fields after herbicide application and control weed escapes, including resistant biotypes, before they set seed.
- Thoroughly clean equipment, as practical, for all weed seeds before leaving fields known to contain resistant biotypes.

8.0 TANK MIXING INSTRUCTIONS

XtendiMax® With VaporGrip® Technology may only be tank-mixed with products that have been tested and found not to adversely affect the offsite movement potential of XtendiMax® With VaporGrip® Technology. Tank mix products may influence pH of the resulting solution. Additional buffering agents are not required for the list of approved tank mix products available at www.xtendimaxapplicationrequirements.com. The applicator must check this website no more than 7 days before applying XtendiMax® With VaporGrip® Technology.

DO NOT tank mix any product with XtendiMax® With VaporGrip® Technology unless:

1. The intended tank-mix product is identified on the list of tested products found at www.xtendimaxapplicationrequirments.com;

2. The intended products are not prohibited on either this label or the label of the tank mix product; and
3. All requirements and restrictions on www.xtendimaxapplicationrequirments.com are followed.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, MONSANTO MAKES NO RECOMMENDATION OR WARRANTY HEREIN REGARDING THE USE OF ANY PRODUCT THAT MAY APPEAR ON THE WEBSITE REFERENCED ABOVE, REGARDLESS OF WHETHER SUCH PRODUCT IS USED ALONE OR IN A TANK MIX WITH XTENDIMAX® WITH VAPORGRIP® TECHNOLOGY. BUYER AND ALL USERS ARE SOLELY RESPONSIBLE FOR ANY LACK OF PERFORMANCE, LOSS, OR DAMAGE IN CONNECTION WITH THE USE OR HANDLING OF ANY SUCH PRODUCT ALONE OR IN A TANK MIX WITH XTENDIMAX® WITH VAPORGRIP® TECHNOLOGY. See the section titled "LIMIT OF WARRANTY AND LIABILITY" herein for more information.

8.1 Compatibility Test for Mix Components

Before mixing components, always perform a compatibility jar test.

- For 15 gallons per acre spray volume, use 2.5 cups (591.5 mL) of water. For other spray volumes, adjust rates accordingly. Only use water from the intended source at the source temperature.
- Add components in the sequence indicated in the Mixing Order section below using 2 teaspoons for each pound or 1 teaspoon for each pint of labeled use rate per acre.
- Cap the jar and invert 10 cycles between component additions.
- When the components have all been added to the jar, let the solution stand for 15 minutes.
- Evaluate the solution for uniformity and stability. The spray solution should not have free oil on the surface; fine particles that precipitate to the bottom; or thick (clabbered) texture. If the spray solution is not compatible, repeat the compatibility test with the addition of a suitable compatibility agent. If the solution is then compatible, use the compatibility agent as directed on its label. If the solution is still incompatible, then do not mix the ingredients in the same tank.

8.2 Mixing Order

Only use approved tank mix products as directed on www.xtendimaxapplicationrequirements.com. Always read and follow label directions for all products in the tank mixture. It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. See section 8.0 for additional restrictions on tank mixing.

1. Ensure application and mixing equipment are clean and in proper working order
2. Water - Begin by agitating a thoroughly **clean sprayer** tank three-quarters full of clean water.
3. Agitation - Maintain constant agitation throughout mixing and application.
4. Drift Reducing Adjuvants (DRA)-(when applicable)
5. Inductor - If an inductor is used, rinse it thoroughly after each component has been added.
6. Products in PVA bags - Place any product contained in water-soluble PVA bags into the mixing tank. Wait until all water-soluble PVA bags have fully dissolved and the product is evenly mixed in the spray tank before continuing.
7. Water-dispersible products (dry flowables, wettable powders, suspension concentrates, or suspo-emulsions)
8. Water-soluble products (such as XtendiMax® With VaporGrip® Technology)
9. Emulsifiable concentrates (such as oil concentrate when applicable)
10. Water-soluble additives (when applicable)

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11. Add remaining quantity of water.

Maintain constant agitation during application

8.3 Adjuvants, Drift Reducing Adjuvants, Surfactants, and Other Tank Mixed Products

See Section 8.0 TANK MIXING INSTRUCTIONS for tank mixing instructions for adjuvants, drift reducing adjuvants, surfactants, and other tank mixed products.

9.0 APPLICATION EQUIPMENT AND TECHNIQUES

DO NOT APPLY THIS PRODUCT USING AERIAL SPRAY EQUIPMENT.

XtendiMax® With VaporGrip® Technology can be applied to actively growing weeds as broadcast, band, or spot spray applications using water as a carrier. For best results, treat weeds early when they are relatively small (less than 4 inches). Timely application to small weeds early in the season will improve control and reduce weed competition. Refer to Table 1 for XtendiMax® With VaporGrip® Technology application rates for control or suppression by weed type and growth stage. For crop-specific application timing and other details, refer to the CROP-SPECIFIC INFORMATION section of this label.

APPLY THIS PRODUCT USING PROPERLY MAINTAINED AND CALIBRATED EQUIPMENT CAPABLE OF DELIVERING THE REQUIRED VOLUMES.

Using a hooded sprayer or other drift reduction technology in combination with approved nozzles may further reduce drift potential.

Cultivation: Do not cultivate within 7 days after applying this product.

Table 1. XtendiMax® With VaporGrip® Technology Application Rates for Control or Suppression by Weed Type and Growth Stage
Use rate limitations are given in sections 10 (RESTRICTIONS), 11 (CROP-SPECIFIC INFORMATION), and 12 (CROPS WITH XTEND TECHNOLOGY)

Weed Type and Stage	Rate Per Acre	Weed Type and Stage	Rate Per Acre
Annual[1]		**Perennial**	
Small, actively growing	11 – 22 fluid ounces	Top growth suppression	11 – 22 fluid ounces
		Top growth control and root suppression	22 – 44 fluid ounces
Established weed growth	22 – 33 fluid ounces	Noted perennials (footnote 1 in Section 13.0).	44 fluid ounces
		Other perennials (without footnote 1 in Section 13.0)[3]	44 fluid ounces
Biennial		**Woody Brush & Vines**	
Rosette diameter 1 – 3 inches	11 – 22 fluid ounces	Top growth suppression	22 – 44 fluid ounces
		Top growth control[2,3]	44 fluid ounces
Rosette diameter 3 inches or more	22 – 44 fluid ounces	Stems and stem suppression[3]	44 fluid ounces
Bolting	44 fluid ounces		

[1] Rates below 11 fluid ounces per acre may provide control or suppression but should typically be

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applied with other herbicides that are effective on the same species and biotype.
[2] Woody Species listed in section 13.0 may require tank mixes for adequate top growth control.
[3] DO NOT broadcast apply more than 44 ounces per acre for a single application and DO NOT exceed broadcast applications of more than 88 ounces per acre within the growing season when a sequential application is needed for control. Use the higher rate when treating dense vegetation or perennial weeds with established root growth. Perennials and Woody Species are defined as those listed in Section 13.0.

9.1 Spray Drift Management

Do not allow herbicide solution to mist, drip, drift or splash onto desirable vegetation because severe injury or destruction to desirable broadleaf plants could result.

The most effective way to reduce drift potential is to apply large droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if the application is made improperly, or under unfavorable environmental conditions (see the **"Temperature and Humidity"** and "**Temperature Inversions"** sections of this label).

9.1.1 Sprayer Setup

The following sprayer setup requirements for drift management must be followed:

- **Nozzle type.** The applicator must use an approved nozzle within a specified pressure range as found at www.xtendimaxapplicationrequirements.com when applying XtendiMax® With VaporGrip® Technology. Do not use any other nozzle and pressure combination not specifically listed on this website.
- **Spray Volume.** The applicator must apply this product in a **minimum of 15 gallons of spray solution per acre**. See Section 8.0 for information on approved tank mix products.
- **Equipment Ground Speed.** Do not exceed a **ground speed of 15 miles per hour**. Select a ground speed that will deliver the desired spray volume while maintaining the desired spray pressure, but slower speeds generally result in better spray coverage and deposition on the target area. Provided the applicator can maintain the required nozzle pressure, it is recommended that tractor speed is reduced to 5 miles per hour at field edges.
- **Spray boom Height.** Do not exceed a **boom height of 24 inches** above target pest or crop canopy. Excessive boom height will increase the drift potential.
- **Wind Speed.** Do not apply when wind speeds are **less than 3 MPH or greater than 10 MPH**. Only apply when wind speed at boom height is between 3 and 10 mph.

9.1.2 Temperature and Humidity

When making applications in low relative humidity or temperatures above 91 degrees Fahrenheit, set up equipment to produce larger droplets to compensate for evaporation (for example: increase orifice size and/or increase spray volume as directed on www.xtendimaxapplicationrequirements.com). Larger droplets have a lower surface to volume ratio and can be impacted less by temperature and humidity. Droplet evaporation is most severe when conditions are both hot and dry.

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9.1.3 Temperature Inversions

Do not apply this product during a temperature inversion as the off-target movement potential is high. In general, temperature inversions are more likely during nighttime hours. Applications of this product may ONLY occur one hour after sunrise though two hours before sunset.

- During a temperature inversion, the atmosphere is very stable and vertical air mixing is restricted, which can cause small, suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light, variable winds common during inversions.
- Temperature inversions can be characterized by increasing temperatures with altitude and can be common on evenings and nights with limited cloud cover and light to no wind. Cooling of air at the earth's surface takes place and warmer air is trapped above it. Temperature inversions can begin to form as the sun sets and often continue into the morning.
- Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.
- The inversion will typically dissipate with increased winds (above 3 miles per hour) or at sunrise when the surface air begins to warm (generally 3°F from morning low).

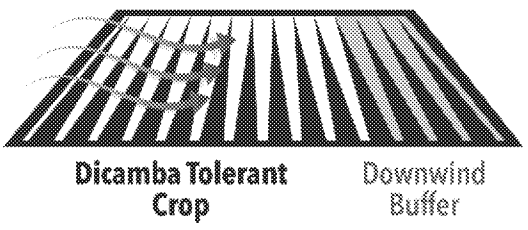
9.1.4 Buffer Requirements and Protection of Sensitive Crops

Do not apply under circumstances where drift may occur to food, forage, or other plantings that might be damaged or the crops rendered unfit for sale, use, or consumption.

9.1.4.a. Buffer Requirement

The applicator **must always maintain** a 110 foot downwind buffer (when applying up to 22 fluid ounces of this product per acre) or a 220 foot downwind buffer (when applying greater than 22 up to 44 fluid ounces of this product per acre) between the last treated row and the nearest downwind field edge (in the direction the wind is blowing).

If you have questions regarding Buffer Requirement contact Bayer at 1-844-RRXTEND prior to application.



The following areas may be included in the buffer distance calculation when directly adjacent to the treated field edges:

- Roads, paved or gravel surfaces, mowed and/or managed areas adjacent to field such as road ditches.
- Planted agricultural fields containing: corn, dicamba tolerant cotton, dicamba tolerant soybean, sorghum, proso millet, small grains and sugarcane. If the applicator intends to include such crops

as dicamba tolerant cotton and/or dicamba tolerant soybeans in the buffer distance calculation, the applicator must confirm the crops are in fact dicamba tolerant.

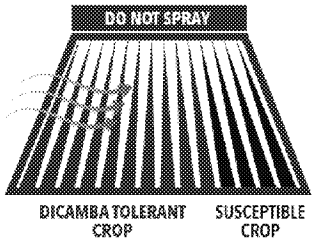
- Agricultural fields that have been prepared for planting~~, mowed and/or managed areas adjacent to field such as road ditches.~~

- Areas covered by the footprint of a building, silo, or other man made structure with walls and or roof.

9.1.4.b. **Sensitive Crops**

DO NOT APPLY this product when the wind is blowing toward adjacent non-dicamba tolerant sensitive crops; this includes **NON-DICAMBA TOLERANT SOYBEAN AND COTTON.**

It is important for the applicator to be aware that wind direction may vary during the application. If wind direction shifts such that the wind is blowing toward adjacent non-dicamba tolerant sensitive crops, the applicator must cease the application.



Before making an application, consult a sensitive crop registry if available; and survey adjacent fields and confirm the crops/areas surrounding the field prior to application. See section 4.2 for related record keeping requirements.

Sensitive crops include, but are not limited to non-dicamba tolerant soybeans and cotton, tomatoes and other fruiting vegetables (EPA crop group 8), fruit trees, cucurbits (EPA crop group 9), grapes, beans, flowers, ornamentals, peas, potatoes, sunflower, tobacco, other broadleaf plants, and including plants in a greenhouse. Severe injury or destruction could occur if any contact between this product and these plants occurs.

If you have questions regarding sensitive crop registries contact Bayer at 1-844-RRXTEND prior to application.

9.1.5 Application Awareness

AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR.

The interaction of equipment and weather related factors must be monitored to maximize performance and on-target spray deposition. The applicator is responsible for considering all of these factors when

making a spray decision. The applicator is responsible for compliance with state and local pesticide regulations, including any state or local pesticide drift regulations.

9.2 Ground Application (Banding)

When applying XtendiMax® With VaporGrip® Technology by banding, determine the amount of herbicide and water volume needed using the following formula:

$$\frac{\text{Bandwidth in inches}}{\text{Row width in inches}} \times \text{Broadcast rate per acre} = \text{Banding herbicide rate per acre}$$

$$\frac{\text{Bandwidth in inches}}{\text{Row width in inches}} \times \text{Broadcast volume per acre} = \text{Banding water volume per acre}$$

9.3 Ground Application (Broadcast)

Water Volume: Use a **minimum of 15 gallons** of spray solution per broadcast acre for optimal performance. Use 20 gallons per acre when treating dense or tall vegetation.

Application Equipment: Select nozzles (refer to section 9.1.1 Nozzle type of this product label) designed to produce minimal amounts of fine spray particles. Spray with nozzles as close to the weeds as practical for good weed coverage.

Using a hooded sprayer or other drift reduction technology in combination with approved nozzles may further reduce drift potential.

9.4 Ground Application (Wipers)

XtendiMax® With VaporGrip® Technology may be applied through wiper application equipment to control or suppress actively growing broadleaf weeds, brush and vines. Use a solution containing 1 part XtendiMax® With VaporGrip® Technology to 1 part water. Do not apply greater than 1 lb dicamba acid equivalent (1 quart of this product) per acre per application. Do not contact desirable vegetation with herbicide solution. Wiper application may be made to crops (including pastures) and non-cropland areas described in this label except for non-dicamba-tolerant cotton, sorghum, and non-dicamba-tolerant soybean.

9.5 Proper Spray System Equipment Cleanout

You must ensure that the spray system used to apply this product is clean before using this product.

Failure to properly clean the entire spray system can result in inadvertent contamination of the spray system.

Bulk handling and mixing equipment containing this product should be segregated when possible to reduce potential for cross-contamination. Consider using block and check valves to avoid backflow during transfer. Piping should be reviewed to ensure there not potential for product build-up. Dedicated nurse trucks and tender equipment should be used when possible.

Small quantities of dicamba may cause injury to non-dicamba tolerant soybeans and other sensitive crops (see Section 9.1.4 of this label for more information).

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Clean equipment immediately after using this product, using a triple rinse procedure as follows:

1. After spraying, drain the sprayer (including boom and lines) immediately. Do not allow the spray solution to remain in the spray boom lines overnight prior to flushing.
2. Flush tank, hoses, boom and nozzles with clean water. If equipped, open boom ends and flush.
3. Inspect and clean all strainers, screens and filters.
4. Prepare a cleaning solution with a commercial detergent or sprayer cleaner or ammonia according to the manufacturer's directions.
5. Take care to wash all parts of the tank, including the inside top surface. Start agitation in the sprayer and thoroughly recirculate the cleaning solution for at least 15 minutes. All visible deposits must be removed from the spraying system.
6. Flush hoses, spray lines and nozzles for at least 1 minute with the cleaning solution.
7. Remove nozzles, screens and strainers and clean separately in the cleaning solution after completing the above procedures.
8. Drain pump, filter and lines.
9. Rinse the complete spraying system with clean water.
10. Clean and wash off the outside of the entire sprayer and boom.
11. All rinse water must be disposed of in compliance with local, state, and federal guidelines.

10.0 ADDITIONAL RESTRICTIONS

Maximum Application Rates: The maximum application or use rates stated throughout this label are given in units of volume (fluid ounces or quarts) of this product per acre. However, the maximum allowed application rates apply to this product combined with the use of any and all other herbicides containing the active ingredients dicamba, whether applied separately or as a tank mixture, on a basis of total pounds of dicamba (acid equivalents) per acre. If more than one dicamba-containing product is applied to the same site within the same year, you must ensure that the total use of dicamba (pounds acid equivalents) does not exceed 2 pounds/A per year from all applications. See the INGREDIENTS section of this label for necessary product information.

Maximum seasonal use rate: Refer to Table 2. Crop-Specific Restrictions for crop-specific maximum seasonal use rates. Do not exceed 88 fluid ounces of XtendiMax® With VaporGrip® Technology (2 pounds acid equivalent) per acre, per year.

Preharvest Interval (PHI): Refer to the CROP-SPECIFIC INFORMATION section for preharvest intervals.

Restricted Entry Interval (REI): 24 hours

Crop Rotational Restrictions

No rotational cropping restrictions apply when rotating to Roundup Ready 2 Xtend® Soybeans, XtendFlex® Soybeans, or cotton seed with XtendFlex® Technology (including Bollgard® 3 XtendFlex® Cotton, Bollgard II® XtendFlex® Cotton, or XtendFlex® Cotton). For other crops the interval between application and planting rotational crop is given below. When counting days from the application of this product, do not count days when the ground is frozen. Planting at intervals less than specified below may result in crop injury. Moisture is essential for the degradation of this herbicide in soil. If dry weather prevails, use cultivation to allow herbicide contact with moist soil.

Planting/replanting restrictions at application rates of 33 fluid ounces of this product per acre per season or less: Follow the planting restrictions in the directions for use for Preplant application in the Crop Specific Information section of this label. For corn, cotton (except cotton seed with XtendFlex® Technology), sorghum, and soybean (except Roundup Ready 2 Xtend® Soybean and XtendFlex® Soybean), follow the planting restrictions in the directions for use for preplant application in **Section 11.**

Crop-Specific Information of this label. Do not plant barley, oat, wheat, and other grass seedings for 15 days for every 11 fluid ounces of this product applied per acre east of the Mississippi River and 22 days for every 11 fluid ounces per acre applied west of the Mississippi River. No planting restrictions apply beyond 120 days after application of this product.

Planting/replanting restrictions at application rates of more than 33 fluid ounces and up to 88 fluid ounces of this product per acre per season: Wait a minimum of 120 days after application of this product before planting corn, sorghum and cotton (except cotton seed with XtendFlex® Technology) east of the Rocky Mountains and before planting all other crops (except Roundup Ready 2 Xtend® Soybean and XtendFlex® Soybean) grown in areas receiving 30 inches or more rainfall annually. Wait a minimum of 180 days before planting crops in areas with less than 30 inches of annual rainfall. Wait a minimum of 30 days for every 22 fluid ounces of this product applied per acre before planting barley, oat, wheat, and other grass seedings east of the Mississippi River and 45 days for every 22 fluid ounces of this product applied per acre west of the Mississippi River.

Table 2. Crop-Specific Restrictions[1]

Crop	Maximum Rate Per Acre Per Application (fl oz)	Maximum In-Crop Rate Per Acre Per Season (fl oz)	Livestock Grazing or Feeding
Asparagus	22	22	Yes
Barley; Fall Spring	11 11	16.5 15	Yes
Conservation Reserve Program (CRP)	44	88	Yes
Corn	22	33	Yes[2]
Cotton	11	11	Yes
Cotton with XtendFlex Technology	44	88	Yes
Fallow Ground	44	88	Yes
Grass grown for seed	44	88	Yes
Oats	5.5	5.5	Yes

Pastureland	44	44	Yes
Proso Millet	5.5	5.5	Yes
Small grains grown for grass, forage, fodder, hay and/or pasture	22	22	Yes
Sorghum	11	22	Yes
Soybean	44	44	Yes
Roundup Ready 2 Xtend Soybean and XtendFlex Soybean	44	88	Yes
Sugarcane	44	88	Yes
Triticale	5.5	5.5	Yes
Sod farms and farmstead turf	44	44	Yes
Wheat	11	22	Yes
[1]Refer to section **11. CROP-SPECIFIC INFORMATION** and section **12. CROPS WITH XTEND TECHNOLOGY** for more details. [2]Once the crop reaches the ensilage (milk) stage or later in maturity			

11.0 CROP-SPECIFIC INFORMATION

Read Sections: 8.0 for Tank Mixing Instructions and 9.1.4 for Buffer Requirements and Sensitive Crops for information on tank mixing, buffer requirements, and sensitive crops.

11.1 Asparagus

Apply XtendiMax® With VaporGrip® Technology to emerged and actively growing weeds in 40 - 60 gallons of diluted spray per treated acre immediately after cutting the field, but at least 24 hours before the next cutting. Multiple applications may be made per growing season.

If spray contacts emerged spears, crooking (twisting) of some spears may result. If such crooking occurs, discard affected spears.

Rates: Apply 11-22 fluid ounces of XtendiMax® With VaporGrip® Technology to control annual sowthistle, black mustard, Canada and Russian thistle, and redroot pigweed (carelessweed).

Apply 22 fluid ounces of XtendiMax® With VaporGrip® Technology to control common chickweed, field bindweed, nettleleaf goosefoot, and wild radish. Up to 2 applications may be made per growing season. Do not exceed a total of 22 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre, per crop year.

Do not harvest prior to 24 hours after treatment.

[Optional: Do not use in the Coachella Valley of California]

11.2 Between Crop Applications

Preplant Directions (Postharvest, Fallow, Crop Stubble, Set-Aside) for Broadleaf Weed Control:

XtendiMax® With VaporGrip® Technology can be applied either postharvest in the fall, spring, or summer during the fallow period or to crop stubble/set-aside acres. Apply XtendiMax® With VaporGrip® Technology as a broadcast or spot treatment to emerged and actively growing weeds after crop harvest (postharvest) and before a killing frost or in the fallow cropland or crop stubble the following spring or summer.

See the "Crop Rotational Restrictions" in Section 10 of this label for the recommended interval between application and planting to prevent crop injury.

Rates and Timings:

Apply 5.5 – 44 fluid ounces of XtendiMax® With VaporGrip® Technology per acre. Refer to Table 1 to determine use rates for specific targeted weed species. For best performance, apply XtendiMax® With VaporGrip® Technology when annual weeds are less than 4 inches tall, when biennial weeds are in the rosette stage and to perennial weed regrowth in late summer or fall following a mowing or tillage treatment. The most effective control of upright perennial broadleaf weeds such as Canada thistle and Jerusalem artichoke occurs if XtendiMax® With VaporGrip® Technology is applied when the majority of weeds have at least 4 – 6 inches of regrowth or for weeds such as field bindweed and hedge bindweed that are in or beyond the full bloom stage.

Avoid disturbing treated areas following application. Treatments may not kill weeds that develop from seed or underground plant parts such as rhizomes or bulblets, after the effective period for XtendiMax® With VaporGrip® Technology. For seedling control, a follow-up program or other cultural practices could be instituted. For small grain in-crop uses of XtendiMax® With VaporGrip® Technology, refer to the small grain section for details.

11.3 Conservation Reserve Program (CRP)

XtendiMax® With VaporGrip® Technology is recommended for use on both newly seeded and established grasses grown in Conservation Reserve or federal Set-Aside Programs. Treatments of XtendiMax® With VaporGrip® Technology will injure or may kill alfalfa, clovers, lespedeza, wild winter peas, vetch, and other legumes.

Newly Seeded Areas

XtendiMax® With VaporGrip® Technology may be applied either preplant or postemergence to newly seeded grasses or small grains such as barley, oats, rye, sudanqrass, wheat, or other grain species grown as a cover crop. Postemergence applications may be made after seedling grasses exceed the 3-leaf stage. Rates of XtendiMax® With VaporGrip® Technology greater than 22 fluid ounces per treated acre may severely injure newly seeded grasses.

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Preplant applications may injure new seedlings if the interval between application and grass planting is less than 45 days per 22 fluid ounces of XtendiMax® With VaporGrip® Technology applied per treated acre west of the Mississippi River or 20 days per 22 fluid ounces applied east of the Mississippi River.

Established Grass Stands

Established grass stands are perennial grasses planted one or more seasons prior to treatment. Certain species (bentgrass, carpetgrass, smooth brome, buffalograss, or St. Augustinegrass) may be injured when treated with more than 22 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre.

When applied at recommended rates, XtendiMax® With VaporGrip® Technology will control many annual and biennial weeds and provide control or suppression of many perennial weeds.

Rates and Timings

Apply 5.5 - 44 fluid ounces of XtendiMax® With VaporGrip® Technology per acre. Refer to **Table 1** for rates based on target weed species. Retreatments may be made as needed; however, do not exceed a total of 88 fluid ounces (4 pints) of XtendiMax® With VaporGrip® Technology per acre per year.

11.4 Corn (Field, Pop, Seed, And Silage)

Direct contact of XtendiMax® With VaporGrip® Technology with corn seed must be avoided. If corn seeds are less than 1.5 inches below the surface, delay application until corn has emerged.

Applications of XtendiMax® With VaporGrip® Technology to corn during periods of rapid growth may result in temporary leaning. Corn will usually become erect within 3 to 7 days. Cultivation should be delayed until after corn is growing normally to avoid breakage.

Corn may be harvested or grazed for feed once the crop has reached the ensilage (milk) stage or later in maturity.

Up to 2 applications of XtendiMax® With VaporGrip® Technology may be made during a growing season. Sequential applications must be separated by 2 weeks or more.

Do not apply XtendiMax® With VaporGrip® Technology to seed corn or popcorn without first verifying with your local seed corn company (supplier) the selectivity of XtendiMax® With VaporGrip® Technology on your inbred line or variety of popcorn. This precaution will help avoid potential injury of sensitive varieties.

Avoid using crop oil concentrates after crop emergence as crop injury may result. Use crop oil concentrates only in dry conditions when corn is less than 5 inches tall when applying XtendiMax® With VaporGrip® Technology.

Use of sprayable fluid fertilizer as the carrier is not recommended for applications of XtendiMax® With VaporGrip® Technology made after corn emergence.

XtendiMax® With VaporGrip® Technology is not registered for use on sweet corn.

Preplant and Preemergence Application in No-Tillage Corn:

Rates: Apply 22 fluid ounces of XtendiMax® With VaporGrip® Technology per acre on medium- or fine-textured soils containing 2.5% or greater organic matter. Use 11 fluid ounces per acre on coarse soils (sand, loamy sand, and sandy loam) or medium- and fine-textured soils with less than 2.5% organic matter.

Timing: XtendiMax® With VaporGrip® Technology can be applied to emerging weeds before, during, or after planting a corn crop. When planting into a legume sod (e.g., alfalfa or clover), apply XtendiMax® With VaporGrip® Technology after 4 – 6 inches of regrowth has occurred

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Preemergence Application in Conventional or Reduced Tillage Corn:

Rates: Apply 22 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre on medium- or fine-textured soils containing 2.5% organic matter or more. Do not apply to coarse textured soils (sand, loamy sand, or sandy loam) of any soil with less than 2.5% organic matter until after corn emergence (See Early Postemergence uses below).

Timing: XtendiMax® With VaporGrip® Technology may be applied after planting and prior to corn emergence. Pre-emergence application of XtendiMax® With VaporGrip® Technology does not require mechanical incorporation to become active. A shallow mechanical incorporation is recommended if application is not followed by adequate rainfall or sprinkler irrigation. Avoid tillage equipment (e.g., drags, harrows) which concentrates treated soil over seed furrow as seed damage could result.

Preemergence control of cocklebur, jimsonweed, and velvetleaf may be reduced if conditions such as low temperature or lack of soil moisture cause delayed or deep germination of weeds.

Early Postemergence Application in All Tillage Systems:

Rates: Apply 22 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre. Reduce the rate to 11 fluid ounces per treated acre if corn is growing on coarse textured soils (sand, loamy sand, and sandy loam).

Timing: Apply between corn emergence and the 5-leaf stage or 8 inches tall, whichever occurs first. Refer to Late Postemergence Applications if the sixth true leaf is emerging from whorl or corn is greater than 8 inches tall.

Late Postemergence Application:

Rate: Apply 11 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre.

Timing: Apply XtendiMax® With VaporGrip® Technology from 8 - 36 inch tall corn or 15 days before tassel emergence, whichever comes first. For best performance, apply when weeds are less than 3 inches tall.

Apply directed spray when corn leaves prevent proper spray.

11.5 Cotton

For directions for use with crops with Xtend Technology see the "CROPS WITH XTEND TECHNOLOGY" section of this label.

Preplant Application:

Apply up to 11 fluid ounces of XtendiMax® With VaporGrip® Technology per acre to control emerged broadleaf weeds prior to planting cotton in conventional or conservation tillage systems.

For best performance, apply XtendiMax® With VaporGrip® Technology when weeds are in the 2 - 4 leaf stage and rosettes are less than 2 inches across.

Following application of XtendiMax® With VaporGrip® Technology and a minimum accumulation of 1 inch of rainfall or overhead irrigation, allow a minimum of 21 days between treatment and planting per application of 11 fluid ounces per acre or less. This plant back interval must be observed prior to planting cotton.

Do not apply preplant to cotton west of the Rockies.

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Do not make XtendiMax® With VaporGrip® Technology preplant applications to cotton in geographic areas with average annual rainfall less than 25 inches.

If applying a spring preplant treatment following application of a fall preplant (postharvest) treatment, then the combination of both treatments may not exceed 2 pounds acid equivalent per acre.

11.6 Grass Grown For Seed

Apply 11 - 22 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre on seedling grass after the crop reaches the 3 -5 leaf stage. Apply up to 44 fluid ounces of XtendiMax® With VaporGrip® Technology on well-established perennial grass. For best performance, apply XtendiMax® With VaporGrip® Technology when weeds are in the 2 - 4 leaf stage and rosettes are less than 2 inches across. Use the higher level of listed rate ranges when treating more mature weeds or dense vegetative growth.

To suppress annual grasses such as brome (downy and ripgut), rattail fescue, and windgrass, apply up to 44 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre in the fall or late summer after harvest and burning of established grass seed crops. Applications should be made immediately following the first irrigation when the soil is moist and before weeds have more than 2 leaves.

Do not apply XtendiMax® With VaporGrip® Technology after the grass seed crop begins to joint.

Refer to the Pasture, Hay, Rangeland, and General Farmstead section for grazing and feeding restrictions.

11.7 Proso Millet

For use only within Colorado, Nebraska, North Dakota, South Dakota, [Optional: **and Wyoming].**

XtendiMax® With VaporGrip® Technology combined with an appropriate tank-mix partner will provide control or suppression of the annual broadleaf weeds listed in **Section 13.**

11.8 Pasture, Hay, Rangeland, And General Farmstead (Noncropland)

XtendiMax® With VaporGrip® Technology is recommended for use on pasture, hay, rangeland, and general farmstead (non-cropland) (including fencerows and non-irrigation ditch banks) for control or suppression of broadleaf weed and brush species listed in Section 12.

XtendiMax® With VaporGrip® Technology may also be applied to non-cropland areas to control broadleaf weeds in noxious weed control programs, districts, or areas including broadcast or spot treatment of roadsides and highways, utilities, railroad, and pipeline rights-of-way. Noxious weeds must be recognized at the state level, but programs may be administered at state, county, or other level.

XtendiMax® With VaporGrip® Technology uses described in this section also pertain to grasses and small grains (forage sorghum, rye, sudangrass, or wheat) grown for grass, forage, fodder, hay and/or pasture use only. Grasses and small grains not grown for grass, forage, fodder, hay and/or pasture must comply with crop-specific uses in this label. Some perennial weeds may be controlled with lower rates of XtendiMax® With VaporGrip® Technology (refer to **Table 1**).

Rates and Timings

Refer to **Table 1** for rate selection based on targeted weed or brush species.

Rates above 44 fluid ounces of XtendiMax® With VaporGrip® Technology per acre are for spot treatments only. Spot treatment is defined as no more than a total of 1000 square feet of treated area per acre. Do not broadcast apply more than 44 fluid ounces per acre.

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Retreatments may be made as needed; however, do not exceed a total of 44 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre during a growing season.

Grass grown for hay requires a minimum of 7-days between treatment and harvest.

Crop-Specific Restrictions

Do not apply more than 22 fluid ounces of XtendiMax® With VaporGrip® Technology per acre to small grains grown for pasture.

Newly seeded areas may be severely injured if more than 22 fluid ounces of XtendiMax® With VaporGrip® Technology is applied per acre.

Established grass crops growing under stress can exhibit various injury symptoms that may be more pronounced if herbicides are applied. Bentgrass, carpetgrass, buffalograss, and St. Augustin grass may be injured if more than 22 fluid ounces of XtendiMax® With VaporGrip® Technology is applied per acre. Usually colonial bent grasses are more tolerant than creeping types. Velvet grasses are most easily injured. Treatments will kill or injure alfalfa, clovers, lespedeza, wild winter peas, vetch, and other legumes.

Table 3 lists the timing restrictions for grazing or harvesting hay from treated fields. There are no grazing restrictions for animals other than lactating dairy animals.

Table 3. Timing Restrictions for Lactating Dairy Animals Following Treatment

XtendiMax® With VaporGrip® Technology Rate per Treated Acre (fluid ounces)	Days Before Grazing (days)	Days Before Hay Harvest (days)
Up to 22	7	37
Up to 44	21	51

- **Spot Treatments:** XtendiMax® With VaporGrip® Technology may be applied to individual clumps or small areas of undesirable vegetation using handgun or similar types of application equipment. Apply diluted sprays to allow complete wetting (up to runoff) of foliage and stems.

Cut Surface Treatments:

XtendiMax® With VaporGrip® Technology may be applied as a cut surface treatment for control of unwanted trees and prevention of sprouts of cut trees.

Rate: Mix 1 part XtendiMax® With VaporGrip® Technology with 1 - 3 parts water to create the application solution. Use the lower dilution rate when treating difficult-to-control species.

- **For Frill or Girdle Treatments**: Make a continuous cut or a series of overlapping cuts using an axe to girdle tree trunk. Spray or paint the cut surface with the solution.
- **For Stump Treatments:** Spray or paint freshly cut surface with the water mix. The area adjacent to the bark should be thoroughly wet.

Applications For Control of Dormant Multiflora Rose:

XtendiMax® With VaporGrip® Technology can be applied when plants are dormant as an undiluted spot treatment directly to the soil or as a Lo-Oil basal bark treatment using an oil-water emulsion solution.

- **Spot treatments:** Spot treatment applications of XtendiMax® With VaporGrip® Technology should be applied directly to the soil as close as possible to the root crown but within 6 - 8 inches of the crown. On sloping terrain, apply XtendiMax® With VaporGrip® Technology to the uphill side of the crown. Do not

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apply when snow or water prevents applying XtendiMax® With VaporGrip® Technology directly to the soil. The use rate of XtendiMax® With VaporGrip® Technology depends on the canopy diameter of the multiflora rose.

Examples: Use 0.34, 1.38, or 3.23 fluid ounces of XtendiMax® With VaporGrip® Technology respectively, for 5, 10, or 15 feet canopy diameters.

- **Lo-Oil basal bark treatments:** For Lo-Oil basal bark treatments, apply XtendiMax® With VaporGrip® Technology to the basal stem region from the ground line to a height of 12 - 18 inches. Spray until runoff, with special emphasis on covering the root crown. For best results, apply XtendiMax® With VaporGrip® Technology when plants are dormant. Do not apply after bud break or when plants are showing signs of active growth. Do not apply when snow or water prevents applying XtendiMax® With VaporGrip® Technology to the ground line.

  To prepare approximately 2 gallons of a Lo-Oil spray solution:

  1) Combine 1.5 gallons of water, 1 ounce of emulsifier, 22 fluid ounces of XtendiMax® With VaporGrip® Technology, and 2.5 pints of No. 2 diesel fuel.
  2) Adjust the amounts of materials used proportionately to the amount of final spray solution desired.

  Do not exceed 8 gallons of spray solution mix applied per acre, per year.

11.9 SMALL GRAINS

11.9.1 Small Grains Not Underseeded To Legumes (fall- and spring-seeded barley, oat, triticale and wheat)

Refer to the specific crop sections below for use rates. When treating difficult to control weeds such as kochia, wild buckwheat, cow cockle, prostrate knotweed, Russian thistle, and prickly lettuce or when dense vegetative growth occurs, use the 4.12 – 5.5 fluid ounces of XtendiMax® With VaporGrip® Technology per acre.

Timings: Apply XtendiMax® With VaporGrip® Technology before, during, or after planting small grains. See specific small grain crop uses below for maximum crop stage. For best performance, apply XtendiMax® With VaporGrip® Technology when weeds are in the 2 - 3 leaf stage and rosettes are less than 2 inches across. Applying XtendiMax® With VaporGrip® Technology to small grains during periods of rapid growth may result in crop leaning. This condition is temporary and will not reduce crop yields.

Restrictions for small grain areas that are grazed or cut for hay are indicated in **Table 3** in Pasture, Hay, Rangeland, and General Farmstead section of this label.

11.9.2 Small Grains: Barley (fall- and spring-seeded)

Early season applications:

Apply 2.75 – 5.5 fluid ounces of XtendiMax® With VaporGrip® Technology to fall-seeded barley prior to the jointing stage. Apply 2.75 – 4.12 fluid ounces of XtendiMax® With VaporGrip® Technology before spring-seeded barley exceeds the 4-leaf stage.

Note: For spring barley varieties that are seeded during the winter months or later, follow the rates and timings given for spring-seeded barley.

Preharvest applications:

XtendiMax® With VaporGrip® Technology can be used to control weeds that may interfere with harvest of fall and spring-seeded barley. Apply 11 fluid ounces of XtendiMax® With VaporGrip® Technology per acre as a broadcast or spot treatment to annual broadleaf weeds when barley is in the hard dough stage

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and the green color is gone from the nodes (joints) of the stem. Best results will be obtained if application can be made when weeds are actively growing, but before weeds canopy.

Allow a minimum of 7 days between treatment and harvest. Do not use preharvest-treated barley for seed unless a germination test is performed on the seed with an acceptable result of 95% germination or better.

[Optional: Do not make preharvest applications in California.]

11.9.3 Small Grains: Oats (fall- and spring-seeded)

Early season applications:

Apply 2.75 – 5.5 fluid ounces of XtendiMax® With VaporGrip® Technology per acre to fall-seeded oat prior to the jointing stage. Apply 2.75 – 5.5 fluid ounces of XtendiMax® With VaporGrip® Technology before spring-seeded oat exceed the 5-leaf stage.

Do not tank mix XtendiMax® With VaporGrip® Technology with 2,4-D in oat.

Allow a minimum of 7 days between treatment and harvest.

11.9.4 Small Grains: Triticale (fall- and spring-seeded)

Early season applications:

Apply 2.75 – 5.5 fluid ounces of XtendiMax® With VaporGrip® Technology to triticale.

Early season applications to fall-seeded triticale must be made prior to the jointing stage.

Early season applications to spring-seeded triticale must be made before triticale reaches the 6-leaf stage.

11.9.5 Small Grains: Wheat (fall- and spring-seeded)

Early Season Applications:

Apply 2.75 – 5.5 fluid ounces of XtendiMax® With VaporGrip® Technology to wheat unless using one of the fall-seeded wheat specific programs below.

Early season applications to fall-seeded wheat must be made prior to the jointing stage.

Early season applications to spring-seeded wheat must be made before wheat exceeds the 6-leaf stage.

Early developing wheat varieties such as TAM 107, Madison, or Wakefield must receive application between early tillering and the jointing stage. Care should be taken in staging these varieties to be certain that the application occurs prior to the jointing stage.

Specific use programs for fall-seeded wheat only:

[Optional: XtendiMax® With VaporGrip® Technology may be used at 8.25 fluid ounces on fall-seeded wheat in Western Oregon as a spring application only.] In Colorado, Kansas, New Mexico, Oklahoma, and Texas, up to 11 fluid ounces of XtendiMax® With VaporGrip® Technology may be applied on fall-seeded wheat after it exceeds the 3-leaf stage for suppression of perennial weeds, such as field bindweed. Applications may be made in the fall following a frost but before a killing freeze.

Preharvest applications:

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XtendiMax® With VaporGrip® Technology can be used to control weeds that may interfere with harvest of wheat. Apply 11 fluid ounces XtendiMax® With VaporGrip® Technology per acre as a broadcast or spot treatment to annual broadleaf weeds when wheat is in the hard dough stage and the green color is gone from the nodes (joints) of the stem. Best results will be obtained if application can be made when weeds are actively growing but before weeds canopy.

Allow a minimum of 7 days between treatment and harvest. Do not use preharvest-treated wheat for seed unless a germination test is performed on the seed with an acceptable result of 95% germination or better.

[Optional: Do not make preharvest applications in California.]

11.10 Sorghum

XtendiMax® With VaporGrip® Technology may be applied preplant, postemergence, or preharvest in sorghum to control many annual broadleaf weeds and to reduce competition from established perennial broadleaf weeds, as well as control their seedlings.

Do not graze or feed treated sorghum forage or silage prior to mature grain stage. If sorghum is grown for pasture or hay, refer to Pasture, Hay, Rangeland, and General Farmstead section of this label for specific grazing and feeding restrictions.

Do not apply XtendiMax® With VaporGrip® Technology to sorghum grown for seed production.

Preplant Application:

Up to 11 fluid ounces of XtendiMax® With VaporGrip® Technology may be applied per acre if applied at least 15 days before sorghum planting.

Postemergence Application:

Up to 11 fluid ounces of XtendiMax® With VaporGrip® Technology per acre may be applied after sorghum is in the spike stage (all sorghum emerged) but before sorghum is 15 inches tall. For best performance, apply XtendiMax® With VaporGrip® Technology when the sorghum crop is in the 3 - 5 leaf stage and weeds are small (less than 3 inches tall). Use drop pipes (drop nozzles) if sorghum is taller than 8 inches. Keep the spray off the sorghum leaves and out of the whorl to reduce the likelihood of crop injury and to improve spray coverage of weed foliage. Applying XtendiMax® With VaporGrip® Technology to sorghum during periods of rapid growth may result in temporary leaning of plants or rolling of leaves. These effects are usually outgrown within 10 - 14 days. Delay harvest until 30 days after a preharvest treatment.

Preharvest uses in Texas and Oklahoma only: Up to 11 fluid ounces of XtendiMax® With VaporGrip® Technology per acre may be applied for weed suppression any time after the sorghum has reached the soft dough stage. An agriculturally approved surfactant may be used to improve performance (read Section 8.0 for tank mixing instructions). Delay harvest until 30 days after a preharvest treatment.

Split Application:

XtendiMax® With VaporGrip® Technology may be applied in split applications: preplant followed by postemergence or preharvest; or postemergence followed by preharvest. Do not exceed 11 fluid ounces per acre, per application or a total of 22 ounces per acre, per season.

11.11 Soybean

For directions for use with crops with Xtend Technology see the "CROPS WITH XTEND TECHNOLOGY" section of this label.

Preplant Applications:

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Apply 5.5 -22 fluid ounces of XtendiMax® With VaporGrip® Technology per acre to control emerged broadleaf weeds prior to planting soybeans. Do not exceed 22 fluid ounces of XtendiMax® With VaporGrip® Technology per acre in a spring application prior to planting soybeans.

Following application of XtendiMax® With VaporGrip® Technology and a minimum accumulation of 1 inch rainfall or overhead irrigation, allow a minimum of 14 days between treatment and planting for applications of 11 fluid ounces per acre or less, and allow a minimum of 28 days between treatment and planting for applications of 22 fluid ounces per acre. These plant back intervals must be observed prior to planting soybeans or crop injury may occur.

Do not make XtendiMax® With VaporGrip® Technology preplant applications to soybeans in geographic areas with average annual rainfall less than 25 inches.

Preharvest Applications:

XtendiMax® With VaporGrip® Technology can be used to control many annual and perennial broadleaf weeds and control or suppress many biennial and perennial broadleaf weeds in soybean prior to harvest (refer to **Section 10**). Apply 11 - 44 fluid ounces of XtendiMax® With VaporGrip® Technology per acre as a broadcast or spot treatment to emerged and actively growing weeds after soybean pods have reached mature brown color and at least 75% leaf drop has occurred.

Do not harvest soybeans until 7 days after application.

Treatments may not kill weeds that develop from seed or underground plant parts, such as rhizomes or bulblets, after the effective period for XtendiMax® With VaporGrip® Technology. For seedling control, a follow-up program or other cultural practice could be instituted.

Do not use preharvest-treated soybean for seed unless a germination test is performed on the seed with an acceptable result of 95% germination or better.

Do not feed soybean fodder or hay following a preharvest application of XtendiMax® With VaporGrip® Technology.

[Optional: Do not make preharvest applications in California.]

11.12 Sugarcane

Apply XtendiMax® With VaporGrip® Technology for control of annual, biennial, or perennial broadleaf weeds listed in Section 11. Apply 11 - 33 fluid ounces of XtendiMax® With VaporGrip® Technology per acre for control of annual weeds, 22 - 44 fluid ounces for control of biennial weeds, and 44 fluid ounces for control or suppression of perennial weeds.

Use the higher level of listed rate ranges when treating dense vegetative growth.

A single retreatment may be made as needed, however, do not exceed a total of 88 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre during a growing season.

Timing: XtendiMax® With VaporGrip® Technology may be applied to sugarcane any time after weeds have emerged, but before the close-in stage of sugarcane. Applications of 44 fluid ounces of XtendiMax® With VaporGrip® Technology per acre made over the top of actively growing sugarcane may result in crop injury.

When possible, direct the spray beneath the sugarcane canopy to minimize the likelihood of crop injury. Using directed sprays will also help maximize the spray coverage of weed foliage.

Allow a minimum of 87 days between treatment and harvest.

11.13 Farmstead Turf (noncropland) and Sod Farms

Do not use on residential sites.

For use in general farmstead (noncropland) and sod farms, apply 4.12 – 44 fluid ounces of XtendiMax® With VaporGrip® Technology per acre to control or suppress growth of many annual, biennial, and some perennial broadleaf weeds commonly found in turf. XtendiMax® With VaporGrip® Technology will also suppress many other listed perennial broadleaf weeds and woody brush and vine species. Refer to Table 1 for rate recommendations based on targeted weed or brush species and growth stage.

Repeat treatments may be made as needed; however, do not exceed 44 fluid ounces of XtendiMax® With VaporGrip® Technology per acre, per growing season.

Apply 30 - 200 gallons of diluted spray per treated acre (3 - 17 quarts of water per 1,000 square feet), depending on density or height of weeds treated and on the type of equipment used.

To avoid injury to newly seeded grasses, delay application of XtendiMax® With VaporGrip® Technology until after the second mowing. Furthermore, applying more than 16 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre may cause noticeable stunting or discoloration of sensitive grass species such as bentgrass, carpetgrass, buffalograss, and St. Augustinegrass.

In areas where roots of sensitive plants extend, do not apply more than 5.5 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre on coarse-textured (sandy-type) soils, or in excess of 8 fluid ounces per treated acre on fine-textured soils. Do not make repeat applications in these areas for 30 days and until previous applications of XtendiMax® With VaporGrip® Technology have been activated in the soil by rain or irrigation.

12.0 CROPS WITH XTEND® TECHNOLOGY

COTTON WITH XTENDFLEX® TECHNOLOGY (INCLUDING BOLLGARD II® XTENDFLEX® COTTON, BOLLGARD® 3 XTENDFLEX® COTTON, OR XTENDFLEX® COTTON), ROUNDUP READY 2 XTEND® SOYBEAN, AND XTENDFLEX® SOYBEAN CONTAIN A PATENTED GENE THAT PROVIDES TOLERANCE TO DICAMBA, THE ACTIVE INGREDIENT IN THIS PRODUCT. THIS PRODUCT WILL CAUSE SEVERE CROP INJURY OR DESTRUCTION AND YIELD LOSS IF APPLIED TO COTTON AND SOYBEAN THAT ARE NOT DICAMBA TOLERANT, INCLUDING COTTON AND SOYBEAN WITH A TRAIT ENGINEERED TO CONFER TOLERANCE TO AUXIN HERBICIDES OTHER THAN DICAMBA. FOLLOW THE REQUIREMENTS SET FORTH HEREIN TO PREVENT SEVERE CROP INJURY OR DESTRUCTION AND YIELD LOSS. CONTACT WITH FOLIAGE, GREEN STEMS, OR FRUIT OF CROPS, OR ANY DESIRABLE PLANTS THAT DO NOT CONTAIN A DICAMBA TOLERANCE GENE OR ARE NOT NATURALLY TOLERANT TO DICAMBA, COULD RESULT IN SEVERE PLANT INJURY OR DESTRUCTION.

Information on cotton with XtendFlex® Technology, Roundup Ready 2 Xtend® Soybean, and XtendFlex® Soybean can be obtained from your seed supplier or Monsanto representative. Cotton with XtendFlex® Technology, Roundup Ready 2 Xtend® Soybean, and XtendFlex® Soybean must be purchased from an authorized licensed seed supplier.

Note: Cotton with XtendFlex® Technology, Roundup Ready 2 Xtend® Soybean, and XtendFlex® Soybean and methods of controlling weeds and applying dicamba in a Cotton with XtendFlex® Technology, Roundup Ready 2 Xtend® Soybean, and XtendFlex® Soybean crop are protected under U.S. patent law. No license to use Cotton with XtendFlex® Technology, Roundup Ready 2 Xtend® Soybean, and XtendFlex® Soybean is granted or implied with the purchase of this herbicide product. Cotton with XtendFlex® Technology, Roundup Ready 2 Xtend® Soybean, and XtendFlex® Soybean are owned by Monsanto and a license must be obtained from Monsanto before using it. Contact your Authorized Monsanto Retailer for information on obtaining a license to Cotton with XtendFlex® Technology, Roundup Ready 2 Xtend® Soybean, and XtendFlex® Soybean.

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12.1 Cotton with XtendFlex® Technology

DO NOT combine these instructions with other instructions in the "COTTON" Section of **this** label for use over crops that do not contain the dicamba tolerance trait.

TYPES OF APPLICATIONS: Burndown/Early Preplant; Preplant; At-Planting; Preemergence; Postemergence (In-crop)

USE INSTRUCTIONS
Apply this product in a minimum of 15 gallons of spray solution per acre as a broadcast application. For best performance, control weeds early when they are less than 4 inches. Timely application will improve control and reduce weed competition. Refer to the following table for maximum application rates of this product with cotton with XtendFlex® Technology.

Maximum Application Rates	
Combined total per year for all applications	88 fluid ounces per acre (2.0 lb. a.e. dicamba per acre)
Total of all Burndown/Early Preplant, Preplant, At-Planting, and Preemergence applications	44 fluid ounces per acre (1.0 lb. a.e. dicamba per acre)
Total of all in-crop applications up to 60 days after planting	44 fluid ounces per acre (1.0 lb. a.e. dicamba per acre)
Maximum In-crop, single application	22 fluid ounces per acre (0.5 lb. a.e. dicamba per acre)

a.e. – acid equivalent

Refer to Table 1 for application rates for weed type and growth stage controlled by this product. Maximum in-crop application rate should be used when treating tough to control weeds, dense vegetative growth or weeds with a well-established root system.

Burndown/Early Preplant, Preplant, At-Planting, Preemergence
USE INSTRUCTIONS: This product may be used to control broadleaf weeds and may be applied before, during or immediately after planting cotton with XtendFlex® Technology. Refer to the "WEEDS CONTROLLED" section of this label for XtendiMax® With VaporGrip® Technology for specific weeds controlled.

RESTRICTIONS:
- The maximum combined quantity of this product that may be applied for all burndown/early preplant, preplant, at-planting, and preemergence applications is 44 fluid ounces (1.0 lb a.e. dicamba) per acre per season.
- The maximum application rate for a single, burndown/early preplant, preplant, at-planting, or preemergence application must not exceed 44 fluid ounces (1.0 lb a.e. dicamba) per acre.
- Do not apply less than 22 fluid ounces (0.5 lb a.e. dicamba) per acre.

Postemergence (In-crop)
USE INSTRUCTIONS: This product may be used to control broadleaf weeds in cotton with XtendFlex® Technology. In-crop applications of this product can be made up to 60 days after planting.

The maximum and minimum rate for any single, in-crop application is 22 fluid ounces (0.5 lb a.e. dicamba) per acre. Using the appropriate application rate may reduce the selection for resistant weeds. For best performance, control weeds early when they are less than 4 inches. To the extent permitted by

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applicable law, Monsanto Company does not warrant product performance of applications to labeled weeds greater than 4 inches in height. Sequential applications of this product may be necessary to control new flushes of weeds or on tough-to-control weeds. Allow at least 7 days between applications. ~~A pre-harvest application of this product may be made up to 7 days before harvest.~~

Postemergence applications of this product mixed with adjuvants may cause a leaf response to cotton with XtendFlex® Technology. The symptoms usually appear as necrotic spots on fully expanded leaves. EC-based products that are tank mixed with products containing dicamba may increase the severity of the leaf damage.

RESTRICTIONS:

- The combined total applied in-crop up to 60 days after planting must not exceed 44 fluid ounces (1.0 lb a.e. dicamba) per acre and a maximum of two in-crop applications.
- The maximum single, in-crop application rate must not exceed 22 fluid ounces (0.5 lb a.e. dicamba).
- The combined total per year for all applications must not exceed 88 fluid ounces (2.0 lb a.e. dicamba) per acre. For example, if a preplant application of 44 fluid ounces (1.0 lb a.e. dicamba) per acre was made, then the combined total in-crop applications must not exceed 44 fluid ounces (1.0 lb a.e. dicamba) per acre.

Commented [A1]: Per EPA comment we have confirmed this is correct.

12.2 Roundup Ready 2 Xtend® Soybean and XtendFlex® Soybean

DO NOT combine these instructions with other instructions in the "SOYBEAN" Section of **this** label for use over crops that do not contain the dicamba tolerance trait.

TYPES OF APPLICATIONS: Burndown/Early Preplant; Preplant; At-Planting; Preemergence; Postemergence (In-crop) ; Lay-By

USE INSTRUCTIONS

Apply this product in a minimum of 15 gallons of spray solution per acre as a broadcast application. For best performance, control weeds early when they are less than 4 inches. Timely application will improve control and reduce weed competition. Refer to the following table for maximum application rates of this product with Roundup Ready 2 Xtend® Soybean and XtendFlex® Soybean.

Maximum Application Rates	
Combined total per year for all applications	88 fluid ounces per acre (2.0 lb. a.e. dicamba per acre)
Total of all Burndown/Early Preplant, Preplant, At-Planting, and Preemergence applications	44 fluid ounces per acre (1.0 lb. a.e. dicamba per acre)
Total of all In-crop applications from emergence up to 45 days after planting	44 fluid ounces per acre (1.0 lb. a.e. dicamba per acre)
Maximum In-crop, single application	22 fluid ounces per acre (0.5 lb. a.e. dicamba per acre)

a.e. – acid equivalent

Refer to Table 1 for application rates for weed type and growth stage controlled by this product. Maximum in-crop application rate should be used when treating tough to control weeds, dense vegetative growth or weeds with a well-established root system.

Burndown/Early Preplant, Preplant, At-Planting, Preemergence
USE INSTRUCTIONS: This product may be used to control broadleaf weeds and may be applied before, during or immediately after planting Roundup Ready 2 Xtend® Soybean and XtendFlex® Soybean. Refer to the "WEEDS CONTROLLED" section of this label for specific weeds controlled.

RESTRICTIONS:
- The maximum combined quantity of this product that may be applied for all burndown/early preplant, preplant, at-planting, and preemergence applications is 44 fluid ounces (1.0 lb a.e. dicamba) per acre per season.
- The maximum application rate for a single, burndown/early preplant, preplant, at-planting, or preemergence application must not exceed 44 fluid ounces (1.0 lb a.e. dicamba) per acre.
- Do not apply less than 22 fluid ounces (0.5 lb a.e. dicamba) per acre.

Postemergence (In-crop)
USE INSTRUCTIONS: This product may be used to control broadleaf weeds in Roundup Ready 2 Xtend® Soybean and XtendFlex® Soybean. In-crop applications of this product can be made up to 45 days after planting.

The maximum and minimum rate for any single, in-crop application is 22 fluid ounces (0.5 lb a.e. dicamba) per acre. Using the appropriate application rate may reduce the selection for resistant weeds. For best performance, control weeds early when they are less than 4 inches. To the extent permitted by applicable law, Monsanto Company does not warrant product performance of applications to labeled weeds greater than 4 inches in height.

A second application of this product may be necessary to control new flushes of weeds and can be made up to 45 days after planting. Allow at least 7 days between applications. For best results, apply XtendiMax® With VaporGrip® Technology after some weed re-growth has occurred.

Application of this product postemergence and under stressful environments may cause temporary loss of turgor, a response commonly described as leaf droop in Roundup Ready 2 Xtend® Soybean and XtendFlex® Soybean. Typically, affected plants recover in 1-3 days depending on the level of droop and environmental conditions.

RESTRICTIONS:
- The combined total application rate in-crop up to 45 days after planting must not exceed 44 fluid ounces (1.0 lb. a.e. dicamba) per acre a maximum of two in-crop applications.
- Do not make in-crop applications of this product more than 45 days after planting.
- The maximum single, in-crop application rate must not exceed 22 fluid ounces (0.5 lb. a.e. dicamba) per acre. The combined total per year for all applications must not exceed 88 fluid ounces (2.0 lb. a.e. dicamba) per acre.

13.0 WEEDS CONTROLLED

General Weed List, Including ALS-, Glyphosate, and Triazine-Resistant Biotypes

Annuals

Alkanet
Amaranth, Palmer, Powell, Spiny
Aster, Slender
Bedstraw, Catchweed
Beggarweed, Florida
Broomweed, Common
Buckwheat, Tartary, Wild
Buffalobur
Burclover, California
Burcucumber
Buttercup, Corn, Creeping, Roughseed, Western Field
Carpetweed
Catchfly, Nightflowering
Chamomile, Corn
Chevil, Bur
Chickweed, Common
Clovers
Cockle, Corn, Cow, White

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Cocklebur, Common
Copperleaf, Hophornbeam
Cornflower (Bachelor Button)
Croton, Tropic, Woolly
Daisy, English
Dragonhead, American
Eveningprimrose, Cutleaf
Falseflax, Smallseed
Fleabane, Annual
Flixweed
Fumitory
Goosefoot, Nettleleaf
Hempnettle
Henbit
Jacobs-Ladder
Jimsonweed
Knawel (German Moss)
Knotweed, Prostrate
Kochia
Ladysthumb
Lambsquarters Common
Lettuce, Miners, Prickly
Mallow, Common, Venice
Marestail (Horseweed)
Mayweed
Morningglory, Ivyleaf, Tall
Mustard, Black, Blue, Tansy, Treacle, Tumble, Wild, Yellowtops
Nightshade, Black, Cutleaf
Pennycress, Field (Fanweed, Frenchweed, Stinkweed)
Pepperweed, Virginia (Peppergrass)
Pigweed, Prostrate, Redroot (Carelessweed), Rough, Smooth, Tumble
Pineappleweed
Poorjoe
Poppy, Red-horned
Puncturevine
Purslane, Common
Pusley, Florida
Radish, Wild
Ragweed, Common, Giant (Buffaloweed), Lance-Leaf
Rocket, London, Yellow
Rubberweed, Bitter (Bitterweed)
Salsify
Senna, Coffee
Sesbania, Hemp
Shepherdpurse
Sicklepod
Sida, Prickly (Teaweed)
Smartweed, Green, Pennsylvania
Sneezeweed, Bitter
Sowthistle, Annual, Spiny
Spanish Needles
Spikeweed, Common
Spurge, Prostrate, Leafy
Spurry, Corn
Starbur, Bristly
Starwort, Little
Sumpweed, Rough
Sunflower, Common (Wild), Volunteer
Thistle, Russian
Velvetleaf
Waterhemp, Common, Tall
Waterprimrose, Winged
Wormwood

Biennials

Burdock, Common
Carrot, Wild (Queen Anne's Lace)
Cockle, White
Eveningprimrose, Common
Geranium, Carolina
Gromwell
Knapweed, Diffuse, Spotted
Mallow, Dwarf
Plantain, Bracted
Ragwort, Tansy
Starthistle, Yellow
Sweetclover
Teasel
Thistle, Bull, Milk, Musk, Plumeless

Perennials

Alfalfa[1]
Artichoke, Jerusalem
Aster, Spiny, Whiteheath
Bedstraw, Smooth
Bindweed, Field, Hedge
Blueweed, Texas
Bursage, Woollyleaf[1] (Bur Ragweed, Povertyweed)
Buttercup, Tall
Campion, Bladder
Chickweed, Field, Mouseear
Chicory[1]
Clover[1], Hop
Dandelion[1], Common
Dock[1] Broadleaf (Bitterdock), Curly
Dogbane, Hemp
Dogfennel[1] (Cypressweed)
Fern, Bracken
Garlic, Wild
Goldenrod, Canada, Missouri
Goldenweed, Common
Hawkweed
Henbane, Black[1]
Horsenettle, Carolina
Ironweed
Knapweed, Black, Diffuse, Russian[1], Spotted
Milkweed, Climbing, Common, Honeyvine, Western Whorled
Nettle, Stinging
Nightshade, Silverleaf (White Horsenettle)
Onion, Wild
Plaintain, Broadleaf, Buckhorn
Pokeweed
Ragweed, Western
Redvine
Sericia Lespedeza
Smartweed, Swamp
Snakeweed, Broom
Sorrel[1], Red (Sheep Sorrel)
Sowthistle[1], Perennial
Spurge, Leafy
Sundrops
Thistle, Canada, Scotch
Toadflex, Dalmatian
Tropical Soda Apple
Trumpetcreeper (Buckvine)
Vetch
Waterhemlock, Spotted
Waterprimrose, Creeping
Woodsorrel[1], Creeping, Yellow
Wormwood, Absinth, Louisiana

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Yankeeweed	Yarrow, Common[1]

[1] Noted perennials may be controlled using lower rates of **XtendiMax® With VaporGrip® Technology** than those recommended for other listed perennial weeds.

Woody Species

Alder	Hawthorn (Thornapple)[2]	Plum, Sand (Wild Plum)[2]
Ash	Hemlock	Poplar
Aspen	Hickory	Rabbitbrush
Basswood	Honeylocust	Redcedar, Eastern[2]
Beech	Honeysuckle	Rose[2], McCartney, Multiflora
Birch	Hornbeam	Sagebrush, Fringed[2]
Blackberry[2]	Huckleberry	Sassafras
Blackgum[2]	Huisache	Serviceberry
Cedar[2]	Ivy, Poison	Spicebush
Cherry	Kudzu	Spruce
Chinquapin	Locust, Black	Sumac
Cottonwood	Maple	Sweetgum[2]
Creosotebush[2]	Mesquite	Sycamore
Cucumbertree	Oak	Tarbush
Dewberry[2]	Oak, Poison	Willow
Dogwood[2]	Olive, Russian	Witchhazel
Elm	Persimmon, Eastern	Yaupon[2]
Grape	Pine	Yucca[2]

[2]Growth suppression only

14.0 LIMIT OF WARRANTY AND LIABILITY

Monsanto Company warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes set forth in the Complete Directions for Use label booklet ("Directions") when used in accordance with those Directions under the conditions described therein. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, NO OTHER EXPRESS WARRANTY OR IMPLIED WARRANTY OF FITNESS FOR PARTICULAR PURPOSE OR MERCHANTABILITY IS MADE. This warranty is also subject to the conditions and limitations stated herein. Specifically, and without limiting the foregoing, MONSANTO MAKES NO RECOMMENDATION OR WARRANTY HEREIN REGARDING THE USE OF ANY PRODUCTS THAT MAY APPEAR ON THE WEBSITE REFERENCED IN THE TANK-MIXING INSTRUCTIONS HEREIN, REGARDLESS OF WHETHER SUCH PRODUCT IS USED ALONE OR IN A TANK MIX WITH XTENDIMAX® WITH VAPORGRIP® TECHNOLOGY. BUYER AND ALL USERS ARE SOLELY RESPONSIBLE FOR ANY LACK OF PERFORMANCE, LOSS, OR DAMAGE IN CONNECTION WITH THE USE OR HANDLING OF ANY SUCH PRODUCT ALONE OR IN A TANK MIX WITH XTENDIMAX® WITH VAPORGRIP® TECHNOLOGY.

Buyer and all users shall promptly notify this Company of any claims whether based in contract, negligence, strict liability, other tort or otherwise.

To the extent consistent with applicable law, buyer and all users are responsible for all loss or damage from use or handling which results from conditions beyond the control of this Company, including, but not limited to, incompatibility with products other than those set forth in the Directions, application to or contact with desirable vegetation, failure of this product to control weed biotypes which develop resistance to dicamba, unusual weather, weather conditions which are outside the range considered normal at the application site and for the time period when the product is applied, as well as weather conditions which are outside the application ranges set forth in the Directions, application in any manner not explicitly set forth in the Directions, moisture conditions outside the moisture range specified in the Directions, or the presence of products other than those set forth in the Directions in or on the soil, crop or treated vegetation.

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This Company does not warrant any product reformulated or repackaged from this product except in accordance with this Company's stewardship requirements and with express written permission from this Company.

For in-crop (over-the-top) uses on crops with Xtend® Technology, crop safety and weed control performance are not warranted by Monsanto when this product is used in conjunction with "brown bag" or "bin run" seed saved from previous year's production and replanted.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE LIMIT OF THE LIABILITY OF THIS COMPANY OR ANY OTHER SELLER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT (INCLUDING CLAIMS BASED IN CONTRACT, NEGLIGENCE, STRICT LIABILITY, OTHER TORT OR OTHERWISE) SHALL BE THE PURCHASE PRICE PAID BY THE USER OR BUYER FOR THE QUANTITY OF THIS PRODUCT INVOLVED, OR, AT THE ELECTION OF THIS COMPANY OR ANY OTHER SELLER, THE REPLACEMENT OF SUCH QUANTITY, OR, IF NOT ACQUIRED BY PURCHASE, REPLACEMENT OF SUCH QUANTITY. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, IN NO EVENT SHALL THIS COMPANY OR ANY OTHER SELLER BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES.

Upon opening and using this product, buyer and all users are deemed to have accepted the terms of this LIMIT OF WARRANTY AND LIABILITY which may not be varied by any verbal or written agreement. If terms are not acceptable, return at once unopened.

Bollgard II®, Bollgard®, Degree Xtra®, Field Master®, Harness®, Roundup Ready®, Roundup Ready 2 Xtend®, Roundup PowerMAX®, RT 3®, Roundup WeatherMAX®, XtendiMax®, XtendFlex® and VaporGrip® are registered trademarks of Monsanto Technology LLC. All other trademarks are the property of their respective owners.

EPA Reg. No. 524-617

EPA Establishment No. [insert appropriate est. no.]

Lot number [insert appropriate lot number]

Net contents [insert net contents]

Packed for:
MONSANTO COMPANY
800 N. Lindbergh Blvd.
ST. LOUIS, MISSOURI, 63167 U.S.A.

© [DATE]

Message

From: MARVIN, THOMAS [AG/1920] [thomas.marvin@bayer.com]
Sent: 10/2/2018 6:51:23 PM
To: Baris, Reuben [Baris.Reuben@epa.gov]
Subject: submission copy
Attachments: 00524-000617_20181002_clean.Master.Label.pdf; 00524-00061720181002_annotated.Master.Label.pdf; 8570-1.Application_524-617.Amendment.R350_RD1868.pdf; 8570-34.Data.Citation_524-617.Amendment.RD350_RD1868.pdf; Cover.Letter_524-617.Amendment.R350_RD1868.pdf; Dicamba.Part.158.Data.List_524-617.PRIA.R350_RD1868.pdf; Letter.of.Authorization_524-617.PRIA.R350_RD1868.pdf; PRIA.payment.receipt_524-617.PRIA.R350_RD1868.pdf

Reuben: Please find attached a copy of the R350 submission we completed today.

Tom

Tom Marvin
Director, Federal Regulatory Affairs
1300 I Street, NW
Washington, DC 20005
Cell: 202-676-7846
Desk: 202-383-2851

This system contains confidential and copyrighted information. Access to the system is limited to users only and only for approved business purposes.
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If improper activity or use is suspected, all available information may be used by the Company for possible disciplinary action, prosecution, civil claim or any remedy or lawful purpose.

MASTER LABEL FOR EPA REG. NO. 524-617

RESTRICTED USE PESTICIDE

For retail sale to and use only by Certified Applicators

This labeling expires on 11/09/20XX, unless the U.S. EPA determines before that date that off-site incidents are not occurring at unacceptable frequencies or levels. Do not use or distribute this product after 11/09/20XX, unless you visit www.xtendimaxapplicationrequirements.com and can verify that EPA has amended this expiration date.

Primary Brand Name:

M1768 Herbicide

Alternate Brand Name:

Xtendimax® With VaporGrip® Technology

GROUP	4	HERBICIDE

ACTIVE INGREDIENT:

Diglycolamine salt of dicamba (3,6-dichloro-*o*-anisic acid)* 42.8%
OTHER INGREDIENTS: 57.2%

TOTAL: 100.0%
* contains 29.0%, 3,6-dichloro-*o*-anisic acid (2.9 pounds acid equivalent per U.S. gallon or 350 grams per liter).

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RESTRICTED USE PESTICIDE

For retail sale to and use only by Certified Applicators

XtendiMax® With VaporGrip® Technology

Complete Directions for Use

This labeling expires on 11/09/20XX, unless the U.S. EPA determines before that date that off-site incidents are not occurring at unacceptable frequencies or levels. Do not use or distribute this product after 11/09/20XX, unless you visit www.xtendimaxapplicationrequirements.com and can verify that EPA has amended this expiration date.

EPA Reg. Number: 524-617

For weed control in asparagus, conservation reserve programs, corn, cotton, fallow croplands, general farmstead (noncropland), sorghum, grass grown for seed, hay, proso millet, pasture, rangeland, small grains, sod farms and farmstead turf, soybean, sugarcane, cotton with XtendFlex Technology, Roundup Ready 2 Xtend Soybean, and XtendFlex Soybean.

GROUP	**4**	**HERBICIDE**

This label supersedes any previously issued labeling for this product, including previously issued supplemental labeling.

XtendiMax® With VaporGrip® Technology is approved by U.S. EPA for all uses specified on this label in the following states, subject to county restriction as noted: Alabama, Arkansas, Arizona, Colorado, Delaware, Florida (excluding Palm Beach County), Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Michigan, Minnesota, Mississippi, Missouri, Nebraska, New Jersey, New Mexico, New York, North Carolina, North Dakota, Oklahoma, Ohio, Pennsylvania, South Carolina, South Dakota, Tennessee (excluding Wilson County), Texas, Virginia, West Virginia, Wisconsin.

Check the registration status of each product in each state before using.

READ THE ENTIRE LABEL FOR **XTENDIMAX® WITH VAPORGRIP® TECHNOLOGY**
BEFORE PROCEEDING WITH THE USE DIRECTIONS CONTAINED IN THIS LABEL

READ AND FOLLOW ALL APPLICABLE DIRECTIONS, RESTRICTIONS, AND PRECAUTIONS ON THE CONTAINER LABEL AND BOOKLET AND WWW.XTENDIMAXAPPLICATIONREQUIREMENTS.COM.

Read the "LIMIT OF WARRANTY AND LIABILITY" statement at the end of the label before buying or using. If terms are not acceptable, return at once unopened.

Net contents:

EPA Establishment No.:

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1.0 INGREDIENTS

ACTIVE INGREDIENT:

Diglycolamine salt of dicamba (3,6-dichloro-*o*-anisic acid)* 42.8%
OTHER INGREDIENTS: 57.2%

TOTAL: 100.0%
* contains 29.0%, 3,6-dichloro-*o*-anisic acid (2.9 pounds acid equivalent per U.S. gallon or 350 grams per liter).

GROUP	4	HERBICIDE

2.0 IMPORTANT PHONE NUMBERS

1. FOR PRODUCT INFORMATION OR ASSISTANCE IN USING THIS PRODUCT, CALL TOLL-FREE, 1-800-332-3111.
2. IN CASE OF AN EMERGENCY INVOLVING THIS HERBICIDE PRODUCT, OR FOR MEDICAL ASSISTANCE, CALL COLLECT, DAY OR NIGHT, (314)-694-4000.

IN CASE OF SPILL:

Steps to be taken in case material is released or spilled:

Dike and contain the spill with inert material (sand, earth, etc.) and transfer liquid and solid diking material to separate containers for disposal. Remove contaminated clothing, and wash affected skin areas with soap and water. Wash clothing before re-use. Keep the spill out of all sewers and open bodies of water.

3.0 PRECAUTIONARY STATEMENTS

3.1 Hazards to Humans and Domestic Animals

Keep out of reach of children.

CAUTION!

Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

FIRST AID	
IF IN EYES	• Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
IF SWALLOWED:	• Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give anything by mouth to an unconscious person.
IF ON SKIN OR CLOTHING:	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 to 20 minutes.

	• Call a poison control center or doctor for treatment advice.

- Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
- You can call **(314) 694-4000**, collect day or night, for emergency medical treatment information.
- This product is identified as **XtendiMax® With VaporGrip® Technology, EPA Registration No. 524-617.**

PERSONAL PROTECTIVE EQUIPMENT (PPE)

All mixers, loaders, applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks

See "Engineering Controls Statement" for additional requirements.
Follow the manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

ENGINEERING CONTROLS STATEMENT

When handlers use closed systems, or enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

IMPORTANT: When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for "all mixers, loaders, applicators and other handlers" and have such PPE immediately available for use in an emergency, such as a spill or equipment breakdown.

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

3.2 Environmental Hazards

Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters or rinsate. Apply this product only as directed on the label.

This chemical is known to leach through soil into ground water under certain conditions as a result of agricultural use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.

Ground and Surface Water Protection

Point source contamination - To prevent point source contamination, do not mix or load this pesticide product within 50 feet of wells (including abandoned wells and drainage wells), sink holes, perennial or intermittent streams and rivers, and natural or impounded lakes and reservoirs. Do not apply pesticide

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product within 50 feet of wells. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pad or properly diked mixing/loading areas as described below.

Mixing, loading, rinsing, or washing operations performed within 50 feet of a well are allowed only when conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be on or move across the pad. The pad must be self-contained to prevent surface water flow over or from the pad. The pad capacity must be maintained at 110% that of the largest pesticide container or application equipment used on the pad and have sufficient capacity to contain all product spills, equipment or container leaks, equipment wash waters, and rainwater that may fall on the pad. The containment capacity does not apply to vehicles delivering pesticide shipments to the mixing/loading site. States may have in effect additional requirements regarding wellhead setbacks and operational containment.

Care must be taken when using this product to prevent: a) back siphoning into wells, b) spills or c) improper disposal of excess pesticide, spray mixtures or rinsates. Check valves or anti-siphoning devices must be used on all mixing equipment.

Movement by surface runoff or through soil - Do not apply under conditions which favor runoff. Do not apply to impervious substrates such as paved or highly compacted surfaces in areas with high potential for ground water contamination. Ground water contamination may occur in areas where soils are permeable or coarse and ground water is near the surface. Do not apply to soils classified as sand with less than 3% organic matter and where ground water depth is shallow. To minimize the possibility of ground water contamination, carefully follow application rate recommendations as affected by soil type in the Crop Specific Information section of this label.

Movement by water erosion of treated soil - Do not apply or incorporate this product through any type of irrigation equipment nor by flood or furrow irrigation. Ensure treated areas have received at least one-half inch rainfall (or irrigation) before using tailwater for subsequent irrigation of other fields.

Endangered Species Concerns
The use of any pesticide in a manner that may kill or otherwise harm an endangered species or adversely modify their habitat is a violation of federal law.

Prior to application of this product you must consult either: 1) U.S. EPA's Bulletins Live platform at http://www.epa.gov/espp/ or call 1-844-447-3813; or 2) an alternative platform that may be approved by U.S. EPA. If EPA approves any alternative platform, it will be identified and accessible at XtendiMaxApplicationRequirements.com. You must comply with the applicable endangered species protection measures, if any, that are required for the location where you are applying this product. If there are endangered species protection measures that are required for the location where you are applying this product, they will appear in either: 1) the Endangered Species Protection Bulletin, in the case of U.S. EPA's Bulletins Live platform, or 2) a similar notice in the case of any alternative platform that may be approved by U.S. EPA.

3.3 Physical or Chemical Hazards

Do not store or heat near oxidizing agents, hazardous chemical reaction may occur.

4.0 DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling. This product can only be used in accordance with the Directions for Use on this label. This labeling must be in the user's possession during application.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulations.

This is a restricted use pesticide.

4.1 Training

Prior to applying this product in the 2019 growing season and each growing season thereafter, applicator(s) must complete dicamba or auxin-specific training. If training is available and required by the state where the applicator intends to apply this product, the applicator must complete that training. If the state where the application is intended does not require auxin or dicamba-specific training, then the applicator must complete dicamba or auxin-specific training provided by one of the following sources: a) a registrant of a dicamba product approved for in-crop use with dicamba-tolerant crops, or b) a state or state-authorized provider.

4.2 Record Keeping

Record keeping is required for applications of this product. **The certified applicator must keep the following records for a period of two years**; records must be generated as soon as practical but no later than 14 days after application and a record must be kept for each application of Xtendimax with VaporGrip Technology. Records must be made available to State Pesticide Control Official(s), USDA, and EPA upon request. An example form summarizing record keeping requirements can be found on www.xtendimaxapplicationrequirements.com.

1. All Items required by 7 CFR Part 110 (RECORDKEEPING ON RESTRICTED USE PESTICIDES BY CERTIFIED APPLICATORS) including:
    a. The brand or product name
    b. The EPA registration number
    c. The total amount applied
    d. The month, day, and year
    e. The location of the application
    f. The crop, commodity, stored product, or site
    g. The size of treated area
    h. The name of the certified applicator
    i. The certification number of the certified applicator
2. Training: Date and provider of required training completed and proof of completion.
3. Receipts of Purchase: Receipts or copies for the purchase of this product.
4. Product Label: A copy of this product label, and any state special local needs label that supplements this label.
5. Crop Planting Date: Record of the date at which the crop was planted.
6. Buffer Requirement: Record of the buffer distance calculation and any areas included within the buffer distance calculations as allowed in Section 9.1.4.a.
7. Susceptible Crops Awareness: Record that a susceptible crop registry was consulted; or document surveying adjacent fields for any susceptible crops prior to application. At a minimum, records must include the name of the susceptible crop registry and the date it was consulted or the survey of adjacent fields and the date conducted (read Section 9.1.4.b for additional information).
8. Start and Finish Times of Each Application: Record of the time at which the application started and the time when the application finished.
9. Application Timing: Record of the type of application (for example: pre-emergence, post-emergence) and number of days after planting if post-emergence.
10. Air Temperature: Record of the air temperature in degrees Fahrenheit at the start and completion of each application.
11. Wind Speed and Direction: Record of the wind speed and direction (the direction from which the wind is blowing) at boom height at the start and completion of each application of this product (Read Section 9.1.1 for information on wind speed).

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12. Nozzle and Pressure: Record of the spray nozzle manufacturer/brand, type, orifice size, and operating pressure used during each application of this product (Read Section 9.1.1 for information on nozzles and pressures.)
13. Tank Mix Products: Record of the brand names and EPA registration numbers (if available) for all products (pesticides, adjuvants, and other products) that were tank mixed with this product for each application (Read Section 8.0 for more information on tank mixing.)
14. Spray System Cleanout: Record of compliance with the section of this label titled Section 9.5: Proper Spray System Equipment Cleanout. At a minimum, records must include the confirmation that the spray system was clean before using this product and that the post-application cleanout was completed in accordance with Section 9.5.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about Personal Protective Equipment (PPE), and restricted-entry intervals. The requirements in this box only apply to uses of this product that are covered by the WPS.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 24 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as, plants, soil, or water is:

- Coveralls worn over short-sleeved shirt and short pants
- Chemical-resistant footwear plus socks
- Waterproof gloves
- Chemical-resistant headgear for overhead exposure
- Protective eyewear

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Do not enter or allow people (or pets) to enter the treated area until sprays have dried. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Do not enter or allow other people or pets to enter until sprays have dried.

5.0 STORAGE AND DISPOSAL

Proper pesticide storage and disposal are essential to protect against exposure to people and the environment due to leaks and spills, excess product or waste, and vandalism. Do not allow this product to contaminate water, foodstuffs, feed or seed by storage and disposal. Open dumping is prohibited. This product may not be mixed, loaded, or used within 50 feet of all wells including abandoned wells, drainage wells, and sinkholes. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pad or properly diked mixing/loading areas as described above

5.1 Pesticide Storage

Groundwater contamination may be reduced by diking and flooring of permanent liquid bulk storage sites with an impermeable material. Spillage or leakage should be contained and absorbed with clay granules, sawdust, or equivalent material for disposal.
Store in original container in a well-ventilated and away from food, pet food, feed, seed, fertilizers, and veterinary supplies. Avoid cross-contamination with other pesticides. Keep container closed to prevent spills and contamination.

5.2 Pesticide Disposal

To avoid wastes, use all material in this container, including rinsate, by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide

disposal program. Such programs are often run by state or local governments or by industry. All disposal must be in accordance with applicable federal, state and local regulations and procedures.
[*Alternate PESTICIDE DISPOSAL statement for transport vehicles only:* To avoid wastes, empty as much product from this transport vehicle as possible for repackaging or use in accordance with label directions. If wastes cannot be avoided, offer remaining product or rinsate to a waste disposal facility or pesticide disposal program. All disposal must be in accordance with applicable federal, state and local regulations and procedures.]

5.3 Container Handling and Disposal

[*Optional label statement if applicable*: See container label for container handling and disposal instructions and refilling limitations.]

[*CONTAINER HANDLING AND DISPOSAL STATEMENTS AND REFILLING LIMITATIONS FOR CONTAINER LABELS*]

[*CONTAINER HANDLING AND DISPOSAL STATEMENT AND REFILLING LIMITATION FOR NONREFILLABLE RIGID CONTAINERS OF LESS THAN 1-GALLON CAPACITY*]

Nonrefillable container. Do not reuse or refill this container.

[*Alternate container statement:* Nonrefillable container. Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state.]

Triple rinse this container promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Then offer this container for recycling, if available. If recycling is not available, dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.

[*Alternate container disposal statement:* Once properly rinsed, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or Monsanto at 1-800-ROUNDUP (1-800-768-6387). If recycling is not available, dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.]

[*CONTAINER HANDLING AND DISPOSAL STATEMENT AND REFILLING LIMITATION FOR NONREFILLABLE RIGID PLASTIC 2.5-GALLON CONTAINERS AND OTHER NONREFILLABLE CONTAINERS OF GREATER THAN 1-GALLON BUT EQUAL TO OR LESS THAN 5-GALLON CAPACITY*]

Nonrefillable container. Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state.

[*Alternate container statement:* Nonrefillable container. Do not reuse or refill this container.]

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Triple rinse or pressure rinse (or equivalent) this container promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Once properly rinsed, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. [*Optional container disposal statement:* To find the nearest site, contact your chemical dealer or Monsanto at 1-800-ROUNDUP (1-800-768-6387)]. If recycling is not available, dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.

[*Alternate container disposal statement:* Then offer this container for recycling, if available. If recycling is not available, dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.]

[*CONTAINER HANDLING AND DISPOSAL STATEMENT AND REFILLING LIMITATION FOR NONREFILLABLE RIGID PLASTIC 30-GALLON CONTAINERS AND OTHER NONREFILLABLE CONTAINERS OF GREATER THAN 5-GALLON CAPACITY*]

Nonrefillable container. Do not reuse or refill this container.

[*Alternate container statement:* Nonrefillable container. Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state.]

Triple rinse or pressure rinse (or equivalent) this container promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Once properly rinsed, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. [*Alternate container disposal statement:* To find the nearest site, contact your chemical dealer or Monsanto at 1-800-ROUNDUP (1-800-768-6387)]. If recycling is not available, dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.

[*Alternate container disposal statement:* Then offer the container for recycling, if available. If recycling is not available, dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.]

[*Optional container label statement:* Return Properly Rinsed Container to Monsanto for Recycling Contact: 1-800-ROUNDUP (1-800-768-6387)]

[*CONTAINER HANDLING AND DISPOSAL STATEMENT AND REFILLING LIMITATION FOR ALL REFILLABLE CONTAINERS, EXCEPT TRANSPORT VEHICLES*]

Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose.

Cleaning this container before refilling is the responsibility of the refiller. Cleaning this container before final disposal is the responsibility of the person disposing of the container.

To clean this container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer this container for recycling, if available.

[*Optional container disposal statement:* To obtain information about recycling refillable containers, contact Monsanto Company at 1-800-ROUNDUP (1-800-768-6387)]

[*Optional container label statement:* Return Properly Rinsed Container to Monsanto for Recycling, Call 1-800-ROUNDUP (1-800-768-6387)]

[*CONTAINER HANDLING AND DISPOSAL STATEMENT FOR ALL TRANSPORT VEHICLES AS DEFINED IN 40 CFR 156.3]*

THIS LABEL FOR USE WITH TRANSPORT VEHICLES ONLY

Emptied container retains vapor and product residue. Observe all precautions stated on this label until the container is cleaned, reconditioned or destroyed. Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, and worn-out threads and closures. Clean thoroughly before reuse for transportation of a material of different composition or before retiring this transport vehicle from service.

[Alternative label statement: NET CONTENTS: See Bill of Lading]

[Alternative label statement: LOT: See Bill of Lading]

[Alternative label statement: For Net Contents and Lot Number, see Bill of Lading]

6.0 PRODUCT INFORMATION

XtendiMax® With VaporGrip® Technology is approved by U.S. EPA for all uses specified on this label in the following states, subject to county restriction as noted: Alabama, Arkansas, Arizona, Colorado, Delaware, Florida (excluding Palm Beach County), Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Michigan, Minnesota, Mississippi, Missouri, Nebraska, New Jersey, New Mexico,

New York, North Carolina, North Dakota, Oklahoma, Ohio, Pennsylvania, South Carolina, South Dakota, Tennessee (excluding Wilson County), Texas, Virginia, West Virginia, Wisconsin.

Additional state restrictions and requirements may apply. The applicator must comply with any additional state requirements and restrictions.

This product is a water-soluble formulation intended for control and suppression of many annual, biennials, and perennial broadleaf weeds, as well as woody brush and vines listed in the WEEDS CONTROLLED section of this label. This product may be used for control of these weeds in asparagus, corn, cotton, conservation reserve programs, fallow cropland, grass grown for seed, hay, proso millet, pasture, rangeland, general farmstead (noncropland), small grains, sod farms and farmstead turf, sorghum, soybean, sugarcane, Cotton with XtendFlex Technology, Roundup Ready 2 Xtend Soybean, and XtendFlex Soybean.

XtendiMax® With VaporGrip® Technology is a contact, systemic herbicide, which can have moderate residual control on small seeded broadleaf weeds, including waterhemp, lambsquarters and Palmer pigweed, depending on rainfall and soil type.

XtendiMax® With VaporGrip® Technology is readily absorbed by plants through shoot and root uptake, translocates throughout the plant's system, and accumulates in areas of active growth. XtendiMax® With VaporGrip® Technology interferes with the plant's growth hormones (auxins) resulting in death of many broadleaf weeds.

Failure to properly clean the entire spray system can result in inadvertent contamination of the spray system. You must ensure that the spray system used to apply this product is clean before using this product.

Rainfast period: Rainfall or irrigation occurring within 4 hours after postemergence applications may reduce the effectiveness of this product.

Refer to the CROP-SPECIFIC INFORMATION and CROPS WITH XTEND TECHNOLOGY sections for application timing and other crop-specific details.

6.1 Restrictions

The applicator must read the entire label, including product labeling and follow all restrictions for XtendiMax® With VaporGrip® Technology. Restrictions included, but are not limited to:

- DO NOT APPLY THIS PRODUCT AERIALLY.
- DO NOT TANK MIX WITH PRODUCTS CONTAINING AMMONIUM SALTS SUCH AS AMMONIUM SULFATE (AMS) AND UREA AMMONIUM NITRATE. Small quantities of AMS can greatly increase the volatility potential of dicamba. Read the TANK MIXING INSTRUCTIONS of this label (Section 8.0) for instructions regarding other tank mix products.
- DO NOT APPLY TO CROPS UNDER STRESS DUE TO LACK OF MOISTURE, HAIL DAMAGE, FLOODING, HERBICIDE INJURY, MECHANICAL INJURY, INSECTS, OR WIDELY FLUCTUATING TEMPERATURES AS INJURY MAY RESULT.
- DO NOT APPLY THROUGH ANY TYPE OF IRRIGATION EQUIPMENT. DO NOT TREAT IRRIGATION DITCHES OR WATER USED FOR CROP IRRIGATION OR DOMESTIC PURPOSES.
- DO NOT MAKE APPLICATION OF THIS PRODUCT IF RAIN IS EXPECTED IN THE NEXT 24 HOURS THAT MAY EXCEED SOIL FIELD CAPACITY AND RESULT IN SOIL RUNOFF.

Review the entire label including, specific crop use direction sections for additional restrictions.

7.0 WEED RESISTANCE MANAGEMENT

GROUP	4	HERBICIDE

Dicamba mimics auxin (a plant hormone) resulting in a hormone imbalance in susceptible plants that interferes with normal cell division, cell enlargement, and protein synthesis. Dicamba active ingredient is a Group 4 herbicide based on the mode of action classification system of the Weed Science Society of America. Any weed population can contain plants naturally resistant to Group 4 herbicides. Weed species resistant to Group 4 herbicides can be effectively managed utilizing another herbicide from a different Group, or by using other cultural or mechanical practices.

7.1 Weed Management Practices

Certain agronomic practices can delay or reduce the likelihood that resistant weed populations will develop and can be utilized to manage weed resistance once it occurs.

Do not use less than the labeled rate of this product in a single application. Using the appropriate application rate can minimize the selection for resistant weeds.

Proactively implementing diversified weed control strategies to minimize selection for weed populations resistant to one or more herbicides is a best practice. A diversified weed management program may include the use of multiple herbicides with different sites of action and overlapping weed spectrum with or without tillage operations and/or other cultural practices. Research has demonstrated that using the labeled rate and directions for use is important to delay the selection for resistance.

The continued effectiveness of this product depends on the successful implementation of a weed resistance management program.

To aid in the prevention of developing weeds resistant to this product:

- Scout fields before application to ensure herbicides and rates will be appropriate for the weed species and weed sizes present.
- Start with a clean field, using either a burndown herbicide application or tillage.
- Control weeds early when they are relatively small (less than 4 inches).
- Apply full rates of XtendiMax® With VaporGrip® Technology for the most difficult to control weed in the field at the specified time (correct weed size) to minimize weed escapes.
- Avoid tank mixtures with other herbicides that reduce the efficacy of this product (through antagonism), or with ones that encourage application rates of this product below those specified on this label.
- Scout fields after application to detect weed escapes or shifts in weed species.
- Control weed escapes before they reproduce by seed or proliferate vegetatively.
- Report any incidence of non-performance of this product against a particular weed species to your Monsanto retailer or representative or call 1-844-RRXTEND (1-844-779-8363).
- If resistance is suspected, treat weed escapes with an herbicide having a site of action other than Group 4 and/or use non-chemical methods to remove escapes, as practical, with the goal of preventing further seed production.

Additionally, users should follow as many of the following herbicide resistance management practices as is practical:

- Use a broad spectrum soil-applied herbicide with other sites of action as a foundation in a weed control program.
- Utilize sequential applications of herbicides with alternative sites of action.

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- Rotate the use of this product with non-Group 4 herbicides.
- Avoid making more than two applications of dicamba and any other Group 4 herbicides within a single growing season unless mixed with an herbicide with a different mechanism of action with an overlapping spectrum for the difficult to control weeds.
- Incorporate non-chemical weed control practices, such as mechanical cultivation, crop rotation, cover crops and weed-free crop seeds, as part of an integrated weed control program.
- Use good agronomic principles that enhance crop development and crop competitiveness.
- Thoroughly clean plant residues from equipment before leaving fields suspected to contain resistant weeds.
- Manage weeds in and around fields, during and after harvest to reduce weed seed production.

Contact the local agricultural extension service, Monsanto representative, agricultural retailer or crop consultant for further guidance on weed control practices as needed.

7.2 Management of Dicamba-Resistant Biotypes

Appropriate testing is critical in order to determine if a weed is resistant to dicamba. Contact your Monsanto representative to determine if resistance in any particular weed biotype has been confirmed in your area, or visit on the Internet www.weedresistancemanagement.com or www.weedscience.org.

Monsanto Company is not responsible for any losses that result from the failure of this product to control dicamba-resistant weed biotypes.

The following good agronomic practices can reduce the spread of confirmed dicamba-resistant biotypes:

- If a naturally occurring resistant biotype is present in your field, this product may be tank-mixed or applied sequentially with an appropriately labeled herbicide with a different mode of action to achieve control (read Section 8.0 for more information on tank mixing).
- Cultural and mechanical control practices (e.g., crop rotation or tillage) can also be used as appropriate.
- Scout treated fields after herbicide application and control weed escapes, including resistant biotypes, before they set seed.
- Thoroughly clean equipment, as practical, for all weed seeds before leaving fields known to contain resistant biotypes.

8.0 TANK MIXING INSTRUCTIONS

XtendiMax® With VaporGrip® Technology may only be tank-mixed with products that have been tested and found not to adversely affect the offsite movement potential of XtendiMax® With VaporGrip® Technology. A list of approved tank mix products is available at www.xtendimaxapplicationrequirements.com.

The applicator must check the list of approved DRAs and approved tank mix products found not to adversely affect the offsite movement potential of XtendiMax® With VaporGrip® Technology at www.xtendimaxapplicationrequirements.com no more than 7 days before applying XtendiMax® With VaporGrip® Technology.

DO NOT tank mix any product with XtendiMax® With VaporGrip® Technology unless:

1. The intended tank-mix product is identified on the list of tested products;
2. The intended products are not prohibited on either this label or the label of the tank mix product; and
3. All requirements and restrictions on www.xtendimaxapplicationrequirments.com are followed.

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TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, MONSANTO MAKES NO RECOMMENDATION OR WARRANTY HEREIN REGARDING THE USE OF ANY PRODUCT THAT MAY APPEAR ON THE WEBSITE REFERENCED ABOVE, REGARDLESS OF WHETHER SUCH PRODUCT IS USED ALONE OR IN A TANK MIX WITH XTENDIMAX® WITH VAPORGRIP® TECHNOLOGY. BUYER AND ALL USERS ARE SOLELY RESPONSIBLE FOR ANY LACK OF PERFORMANCE, LOSS, OR DAMAGE IN CONNECTION WITH THE USE OR HANDLING OF ANY SUCH PRODUCT ALONE OR IN A TANK MIX WITH XTENDIMAX® WITH VAPORGRIP® TECHNOLOGY. See the section titled "LIMIT OF WARRANTY AND LIABILITY" herein for more information.

8.1 Compatibility Test for Mix Components

Before mixing components, always perform a compatibility jar test.

- For 15 gallons per acre spray volume, use 2.5 cups (591.5 mL) of water. For other spray volumes, adjust rates accordingly. Only use water from the intended source at the source temperature.
- Add components in the sequence indicated in the Mixing Order section below using 2 teaspoons for each pound or 1 teaspoon for each pint of labeled use rate per acre.
- Cap the jar and invert 10 cycles between component additions.
- When the components have all been added to the jar, let the solution stand for 15 minutes.
- Evaluate the solution for uniformity and stability. The spray solution should not have free oil on the surface; fine particles that precipitate to the bottom; or thick (clabbered) texture. If the spray solution is not compatible, repeat the compatibility test with the addition of a suitable compatibility agent. If the solution is then compatible, use the compatibility agent as directed on its label. If the solution is still incompatible, then do not mix the ingredients in the same tank.

8.2 Mixing Order

Only use approved tank mix products as directed on www.xtendimaxapplicationrequirements.com. Always read and follow label directions for all products in the tank mixture. It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. See section 8.0 for additional restrictions on tank mixing.

1. Ensure application and mixing equipment are clean and in proper working order
2. Water - Begin by agitating a thoroughly **clean sprayer** tank three-quarters full of clean water.
3. Agitation - Maintain constant agitation throughout mixing and application.
4. Drift Reducing Adjuvants (DRA)-(when applicable)
5. Inductor - If an inductor is used, rinse it thoroughly after each component has been added.
6. Products in PVA bags - Place any product contained in water-soluble PVA bags into the mixing tank. Wait until all water-soluble PVA bags have fully dissolved and the product is evenly mixed in the spray tank before continuing.
7. Water-dispersible products (dry flowables, wettable powders, suspension concentrates, or suspo-emulsions)
8. Water-soluble products (such as XtendiMax® With VaporGrip® Technology)
9. Emulsifiable concentrates (such as oil concentrate when applicable)
10. Water-soluble additives (when applicable)
11. Add remaining quantity of water.

Maintain constant agitation during application

8.3 Adjuvants, Drift Reducing Adjuvants, Surfactants, and Other Tank Mixed Products

See Section 8.0 TANK MIXING INSTRUCTIONS for tank mixing instructions for adjuvants, drift reducing adjuvants, surfactants, and other tank mixed products.

9.0 APPLICATION EQUIPMENT AND TECHNIQUES

DO NOT APPLY THIS PRODUCT USING AERIAL SPRAY EQUIPMENT.

XtendiMax® With VaporGrip® Technology can be applied to actively growing weeds as broadcast, band, or spot spray applications using water as a carrier. For best results, treat weeds early when they are relatively small (less than 4 inches). Timely application to small weeds early in the season will improve control and reduce weed competition. Refer to Table 1 for XtendiMax® With VaporGrip® Technology application rates for control or suppression by weed type and growth stage. For crop-specific application timing and other details, refer to the CROP-SPECIFIC INFORMATION section of this label.

APPLY THIS PRODUCT USING PROPERLY MAINTAINED AND CALIBRATED EQUIPMENT CAPABLE OF DELIVERING THE REQUIRED VOLUMES.

Using a hooded sprayer or other drift reduction technology in combination with approved nozzles may further reduce drift potential.

Cultivation: Do not cultivate within 7 days after applying this product.

Table 1. XtendiMax® With VaporGrip® Technology Application Rates for Control or Suppression by Weed Type and Growth Stage
Use rate limitations are given in sections 10 (RESTRICTIONS), 11 (CROP-SPECIFIC INFORMATION), and 12 (CROPS WITH XTEND TECHNOLOGY)

Weed Type and Stage	Rate Per Acre	Weed Type and Stage	Rate Per Acre
Annual[1]		**Perennial**	
Small, actively growing	11 – 22 fluid ounces	Top growth suppression	11 – 22 fluid ounces
Established weed growth	22 – 33 fluid ounces	Top growth control and root suppression	22 – 44 fluid ounces
		Noted perennials (footnote 1 in Section 13.0).	44 fluid ounces
		Other perennials (without footnote 1 in Section 13.0)[3]	44 fluid ounces
Biennial		**Woody Brush & Vines**	
Rosette diameter 1 – 3 inches	11 – 22 fluid ounces	Top growth suppression	22 – 44 fluid ounces
Rosette diameter 3 inches or more	22 – 44 fluid ounces	Top growth control[2,3]	44 fluid ounces
Bolting	44 fluid ounces	Stems and stem suppression[3]	44 fluid ounces

[1] Rates below 11 fluid ounces per acre may provide control or suppression but should typically be applied with other herbicides that are effective on the same species and biotype.
[2] Woody Species listed in section 13.0 may require tank mixes for adequate top growth control.
[3] DO NOT broadcast apply more than 44 ounces per acre for a single application and DO NOT exceed broadcast applications of more than 88 ounces per acre within the growing season when

a sequential application is needed for control. Use the higher rate when treating dense vegetation or perennial weeds with established root growth. Perennials and Woody Species are defined as those listed in Section 13.0.

9.1 Spray Drift Management

Do not allow herbicide solution to mist, drip, drift or splash onto desirable vegetation because severe injury or destruction to desirable broadleaf plants could result.

The most effective way to reduce drift potential is to apply large droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if the application is made improperly, or under unfavorable environmental conditions (see the **"Temperature and Humidity"** and "**Temperature Inversions**" sections of this label).

9.1.1 Sprayer Setup

The following sprayer setup requirements for drift management must be followed:

- **Nozzle type.** The applicator must use an approved nozzle within a specified pressure range as found at www.xtendimaxapplicationrequirements.com when applying XtendiMax® With VaporGrip® Technology. Do not use any other nozzle and pressure combination not specifically listed on this website.

- **Spray Volume.** The applicator must apply this product in a **minimum of 15 gallons of spray solution per acre**. See Section 8.0 for information on approved tank mix products.

- **Equipment Ground Speed.** Do not exceed a **ground speed of 15 miles per hour**. Select a ground speed that will deliver the desired spray volume while maintaining the desired spray pressure, but slower speeds generally result in better spray coverage and deposition on the target area. Provided the applicator can maintain the required nozzle pressure, it is recommended that tractor speed is reduced to 5 miles per hour at field edges.

- **Spray boom Height.** Do not exceed a **boom height of 24 inches** above target pest or crop canopy. Excessive boom height will increase the drift potential.

- **Wind Speed.** Do not apply when wind speeds are **less than 3 MPH or greater than 10 MPH**. Only apply when wind speed at boom height is between 3 and 10 mph.

9.1.2 Temperature and Humidity

When making applications in low relative humidity or temperatures above 91 degrees Fahrenheit, set up equipment to produce larger droplets to compensate for evaporation (for example: increase orifice size and/or increase spray volume as directed on www.xtendimaxapplicationrequirements.com). Larger droplets have a lower surface to volume ratio and can be impacted less by temperature and humidity. Droplet evaporation is most severe when conditions are both hot and dry.

9.1.3 Temperature Inversions

Do not apply this product during a temperature inversion as the off-target movement potential is high.

Do not apply this product between two hours before sunset and one hour after sunrise. In general, temperature inversions are more likely during night time hours.

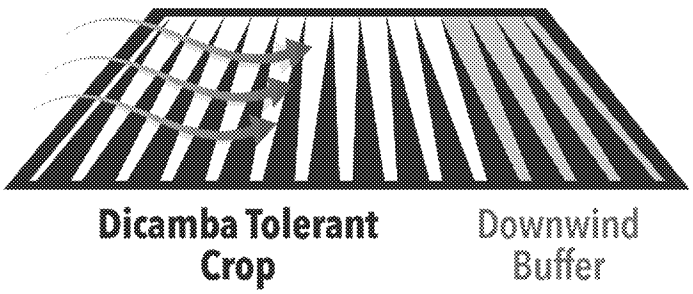
- During a temperature inversion, the atmosphere is very stable and vertical air mixing is restricted, which can cause small, suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light, variable winds common during inversions.
- Temperature inversions can be characterized by increasing temperatures with altitude and can be common on evenings and nights with limited cloud cover and light to no wind. Cooling of air at the earth's surface takes place and warmer air is trapped above it. Temperature inversions can begin to form as the sun sets and often continue into the morning.
- Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.
- The inversion will typically dissipate with increased winds (above 3 miles per hour) or at sunrise when the surface air begins to warm (generally 3°F from morning low).

9.1.4 Buffer Requirements and Protection of Susceptible Crops

Do not apply under circumstances where drift may occur to food, forage, or other plantings that might be damaged or the crops rendered unfit for sale, use, or consumption.

9.1.4.a. **Buffer Requirement**

The applicator **must always maintain** a 110 foot downwind buffer (when applying up to 22 fluid ounces of this product per acre) or a 220 foot downwind buffer (when applying greater than 22 up to 44 fluid ounces of this product per acre) between the last treated row and the nearest downwind field edge (in the direction the wind is blowing).

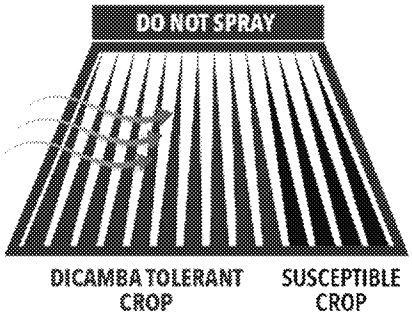


The following areas may be included in the buffer distance calculation when directly adjacent to the treated field edges:

- Roads, paved or gravel surfaces.
- Planted agricultural fields containing: corn, dicamba tolerant cotton, dicamba tolerant soybean, sorghum, proso millet, small grains and sugarcane. Mowed and/ or managed areas adjacent to field such as road ditches.
- If the applicator intends to include such crops as dicamba tolerant cotton and/or dicamba tolerant soybeans in the buffer distance calculation, the applicator must confirm the crops are in fact dicamba tolerant.
- Agricultural fields that have been prepared for planting.
- Areas covered by the footprint of a building, silo, or other man made structure with walls and or roof.

9.1.4.b. **Susceptible Crops**

DO NOT APPLY this product when the wind is blowing toward adjacent non-dicamba tolerant susceptible crops; this includes **NON-DICAMBA TOLERANT SOYBEAN AND COTTON.**



Before making an application, the applicator must survey the application site for adjacent non-target susceptible crops. The applicator must also consult applicable susceptible crop registries to identify any commercial specialty or certified organic crops that may be located near the application site.

Susceptible crops include, but are not limited to non-dicamba tolerant soybeans and cotton, tomatoes and other fruiting vegetables (EPA crop group 8), fruit trees, cucurbits (EPA crop group 9), grapes, beans, flowers, ornamentals, peas, potatoes, sunflower, tobacco, other broadleaf plants, and including plants in a greenhouse. Severe injury or destruction could occur if any contact between this product and these plants occurs.

9.1.5 Application Awareness

AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR.

The interaction of equipment and weather related factors must be monitored to maximize performance and on-target spray deposition. The applicator is responsible for considering all of these factors when making a spray decision. The applicator is responsible for compliance with state and local pesticide regulations, including any state or local pesticide drift regulations.

9.2 Ground Application (Banding)

When applying XtendiMax® With VaporGrip® Technology by banding, determine the amount of herbicide and water volume needed using the following formula:

$$\frac{\text{Bandwidth in inches}}{\text{Row width in inches}} \times \text{Broadcast rate per acre} = \text{Banding herbicide rate per acre}$$

$$\frac{\text{Bandwidth in inches}}{\text{Row width in inches}} \times \text{Broadcast volume per acre} = \text{Banding water volume per acre}$$

9.3 Ground Application (Broadcast)

Water Volume: Use a **minimum of 15 gallons** of spray solution per broadcast acre for optimal performance. Use 20 gallons per acre when treating dense or tall vegetation.

Application Equipment: Select nozzles (refer to section 9.1.1 Nozzle type of this product label) designed to produce minimal amounts of fine spray particles. Spray with nozzles as close to the weeds as practical for good weed coverage.

Using a hooded sprayer or other drift reduction technology in combination with approved nozzles may further reduce drift potential.

9.4 Ground Application (Wipers)

XtendiMax® With VaporGrip® Technology may be applied through wiper application equipment to control or suppress actively growing broadleaf weeds, brush and vines. Use a solution containing 1 part XtendiMax® With VaporGrip® Technology to 1 part water. Do not apply greater than 1 lb dicamba acid equivalent (1 quart of this product) per acre per application. Do not contact desirable vegetation with herbicide solution. Wiper application may be made to crops (including pastures) and non-cropland areas described in this label except for non-dicamba-tolerant cotton, sorghum, and non-dicamba-tolerant soybean.

9.5 Proper Spray System Equipment Cleanout

You must ensure that the spray system used to apply this product is clean before using this product.

Failure to properly clean the entire spray system can result in inadvertent contamination of the spray system.

Bulk handling and mixing equipment containing this product should be segregated when possible to reduce potential for cross-contamination. Consider using block and check valves to avoid backflow during transfer. Piping should be reviewed to ensure there not potential for product build-up. Dedicated nurse trucks and tender equipment should be used when possible.

Small quantities of dicamba may cause injury to non-dicamba tolerant soybeans and other susceptible crops (see Section 9.1.4 of this label for more information).

Clean equipment immediately after using this product, using a triple rinse procedure as follows:

1. After spraying, drain the sprayer (including boom and lines) immediately. Do not allow the spray solution to remain in the spray boom lines overnight prior to flushing.
2. Flush tank, hoses, boom and nozzles with clean water. If equipped, open boom ends and flush.
3. Inspect and clean all strainers, screens and filters.
4. Prepare a cleaning solution with a commercial detergent or sprayer cleaner or ammonia according to the manufacturer's directions.
5. Take care to wash all parts of the tank, including the inside top surface. Start agitation in the sprayer and thoroughly recirculate the cleaning solution for at least 15 minutes. All visible deposits must be removed from the spraying system.
6. Flush hoses, spray lines and nozzles for at least 1 minute with the cleaning solution.

7. Remove nozzles, screens and strainers and clean separately in the cleaning solution after completing the above procedures.
8. Drain pump, filter and lines.
9. Rinse the complete spraying system with clean water.
10. Clean and wash off the outside of the entire sprayer and boom.
11. All rinse water must be disposed of in compliance with local, state, and federal guidelines.

10.0 ADDITIONAL RESTRICTIONS

Maximum Application Rates: The maximum application or use rates stated throughout this label are given in units of volume (fluid ounces or quarts) of this product per acre. However, the maximum allowed application rates apply to this product combined with the use of any and all other herbicides containing the active ingredients dicamba, whether applied separately or as a tank mixture, on a basis of total pounds of dicamba (acid equivalents) per acre. If more than one dicamba-containing product is applied to the same site within the same year, you must ensure that the total use of dicamba (pounds acid equivalents) does not exceed 2 pounds/A per year from all applications. See the INGREDIENTS section of this label for necessary product information.

Maximum seasonal use rate: Refer to Table 2. Crop-Specific Restrictions for crop-specific maximum seasonal use rates. Do not exceed 88 fluid ounces of XtendiMax® With VaporGrip® Technology (2 pounds acid equivalent) per acre, per year.

Preharvest Interval (PHI): Refer to the CROP-SPECIFIC INFORMATION section for preharvest intervals.

Restricted Entry Interval (REI): 24 hours

Crop Rotational Restrictions

No rotational cropping restrictions apply when rotating to Roundup Ready 2 Xtend® Soybeans, XtendFlex® Soybeans, or cotton seed with XtendFlex® Technology (including Bollgard® 3 XtendFlex® Cotton, Bollgard II® XtendFlex® Cotton, or XtendFlex® Cotton). For other crops the interval between application and planting rotational crop is given below. When counting days from the application of this product, do not count days when the ground is frozen. Planting at intervals less than specified below may result in crop injury. Moisture is essential for the degradation of this herbicide in soil. If dry weather prevails, use cultivation to allow herbicide contact with moist soil.

Planting/replanting restrictions at application rates of 33 fluid ounces of this product per acre per season or less: Follow the planting restrictions in the directions for use for Preplant application in the Crop Specific Information section of this label. For corn, cotton (except cotton seed with XtendFlex® Technology), sorghum, and soybean (except Roundup Ready 2 Xtend® Soybean and XtendFlex® Soybean), follow the planting restrictions in the directions for use for preplant application in **Section 11. Crop-Specific Information** of this label. Do not plant barley, oat, wheat, and other grass seedings for 15 days for every 11 fluid ounces of this product applied per acre east of the Mississippi River and 22 days for every 11 fluid ounces per acre applied west of the Mississippi River. No planting restrictions apply beyond 120 days after application of this product.

Planting/replanting restrictions at application rates of more than 33 fluid ounces and up to 88 fluid ounces of this product per acre per season: Wait a minimum of 120 days after application of this product before planting corn, sorghum and cotton (except cotton seed with XtendFlex® Technology) east of the Rocky Mountains and before planting all other crops (except Roundup Ready 2 Xtend® Soybean and XtendFlex® Soybean) grown in areas receiving 30 inches or more rainfall annually. Wait a minimum of 180 days before planting crops in areas with less than 30 inches of annual rainfall. Wait a minimum of

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30 days for every 22 fluid ounces of this product applied per acre before planting barley, oat, wheat, and other grass seedings east of the Mississippi River and 45 days for every 22 fluid ounces of this product applied per acre west of the Mississippi River.

Table 2. Crop-Specific Restrictions[1]

Crop	Maximum Rate Per Acre Per Application (fl oz)	Maximum In-Crop Rate Pre Acre Per Season (fl oz)	Livestock Grazing or Feeding
Asparagus	22	22	Yes
Barley; Fall Spring	11 11	16.5 15	Yes
Conservation Reserve Program (CRP)	44	88	Yes
Corn	22	33	Yes[2]
Cotton	11	11	Yes
Cotton with XtendFlex Technology	44	88	Yes
Fallow Ground	44	88	Yes
Grass grown for seed	44	88	Yes
Oats	5.5	5.5	Yes
Pastureland	44	44	Yes
Proso Millet	5.5	5.5	Yes
Small grains grown for grass, forage, fodder, hay and/or pasture	22	22	Yes

Sorghum	11	22	Yes
Soybean	44	44	Yes
Roundup Ready 2 Xtend Soybean and XtendFlex Soybean	44	88	Yes
Sugarcane	44	88	Yes
Triticale	5.5	5.5	Yes
Sod farms and farmstead turf	44	44	Yes
Wheat	11	22	Yes
[1]Refer to section **11. CROP-SPECIFIC INFORMATION** and section **12. CROPS WITH XTEND TECHNOLOGY** for more details. [2]Once the crop reaches the ensilage (milk) stage or later in maturity			

11.0 CROP-SPECIFIC INFORMATION

Read Sections: 8.0 for Tank Mixing Instructions and 9.1.4 for Buffer Requirements and Susceptible Crops for information on tank mixing, buffer requirements, and susceptible crops.

11.1 Asparagus

Apply XtendiMax® With VaporGrip® Technology to emerged and actively growing weeds in 40 - 60 gallons of diluted spray per treated acre immediately after cutting the field, but at least 24 hours before the next cutting. Multiple applications may be made per growing season.

If spray contacts emerged spears, crooking (twisting) of some spears may result. If such crooking occurs, discard affected spears.

Rates: Apply 11-22 fluid ounces of XtendiMax® With VaporGrip® Technology to control annual sowthistle, black mustard, Canada and Russian thistle, and redroot pigweed (carelessweed).

Apply 22 fluid ounces of XtendiMax® With VaporGrip® Technology to control common chickweed, field bindweed, nettleleaf goosefoot, and wild radish. Up to 2 applications may be made per growing season. Do not exceed a total of 22 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre, per crop year.

Do not harvest prior to 24 hours after treatment.

[Optional: Do not use in the Coachella Valley of California]

11.2 Between Crop Applications

Preplant Directions (Postharvest, Fallow, Crop Stubble, Set-Aside) for Broadleaf Weed Control:

XtendiMax® With VaporGrip® Technology can be applied either postharvest in the fall, spring, or summer during the fallow period or to crop stubble/set-aside acres. Apply XtendiMax® With VaporGrip® Technology as a broadcast or spot treatment to emerged and actively growing weeds after crop harvest (postharvest) and before a killing frost or in the fallow cropland or crop stubble the following spring or summer.

See the "Crop Rotational Restrictions" in Section 10 of this label for the recommended interval between application and planting to prevent crop injury.

Rates and Timings:

Apply 5.5 – 44 fluid ounces of XtendiMax® With VaporGrip® Technology per acre. Refer to Table 1 to determine use rates for specific targeted weed species. For best performance, apply XtendiMax® With VaporGrip® Technology when annual weeds are less than 4 inches tall, when biennial weeds are in the rosette stage and to perennial weed regrowth in late summer or fall following a mowing or tillage treatment. The most effective control of upright perennial broadleaf weeds such as Canada thistle and Jerusalem artichoke occurs if XtendiMax® With VaporGrip® Technology is applied when the majority of weeds have at least 4 – 6 inches of regrowth or for weeds such as field bindweed and hedge bindweed that are in or beyond the full bloom stage.

Avoid disturbing treated areas following application. Treatments may not kill weeds that develop from seed or underground plant parts such as rhizomes or bulblets, after the effective period for XtendiMax® With VaporGrip® Technology. For seedling control, a follow-up program or other cultural practices could be instituted. For small grain in-crop uses of XtendiMax® With VaporGrip® Technology, refer to the small grain section for details.

11.3 Conservation Reserve Program (CRP)

XtendiMax® With VaporGrip® Technology is recommended for use on both newly seeded and established grasses grown in Conservation Reserve or federal Set-Aside Programs. Treatments of XtendiMax® With VaporGrip® Technology will injure or may kill alfalfa, clovers, lespedeza, wild winter peas, vetch, and other legumes.

Newly Seeded Areas

XtendiMax® With VaporGrip® Technology may be applied either preplant or postemergence to newly seeded grasses or small grains such as barley, oats, rye, sudanqrass, wheat, or other grain species grown as a cover crop. Postemergence applications may be made after seedling grasses exceed the 3-leaf stage. Rates of XtendiMax® With VaporGrip® Technology greater than 22 fluid ounces per treated acre may severely injure newly seeded grasses.

Preplant applications may injure new seedlings if the interval between application and grass planting is less than 45 days per 22 fluid ounces of XtendiMax® With VaporGrip® Technology applied per treated acre west of the Mississippi River or 20 days per 22 fluid ounces applied east of the Mississippi River.

Established Grass Stands

Established grass stands are perennial grasses planted one or more seasons prior to treatment. Certain species (bentgrass, carpetgrass, smooth brome, buffalograss, or St. Augustinegrass) may be injured when treated with more than 22 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre.

When applied at recommended rates, XtendiMax® With VaporGrip® Technology will control many annual and biennial weeds and provide control or suppression of many perennial weeds.

Rates and Timings

Apply 5.5 - 44 fluid ounces of XtendiMax® With VaporGrip® Technology per acre. Refer to **Table 1** for rates based on target weed species. Retreatments may be made as needed; however, do not exceed a total of 88 fluid ounces (4 pints) of XtendiMax® With VaporGrip® Technology per acre per year.

11.4 Corn (Field, Pop, Seed, And Silage)

Direct contact of XtendiMax® With VaporGrip® Technology with corn seed must be avoided. If corn seeds are less than 1.5 inches below the surface, delay application until corn has emerged.

Applications of XtendiMax® With VaporGrip® Technology to corn during periods of rapid growth may result in temporary leaning. Corn will usually become erect within 3 to 7 days. Cultivation should be delayed until after corn is growing normally to avoid breakage.

Corn may be harvested or grazed for feed once the crop has reached the ensilage (milk) stage or later in maturity.

Up to 2 applications of XtendiMax® With VaporGrip® Technology may be made during a growing season. Sequential applications must be separated by 2 weeks or more.

Do not apply XtendiMax® With VaporGrip® Technology to seed corn or popcorn without first verifying with your local seed corn company (supplier) the selectivity of XtendiMax® With VaporGrip® Technology on your inbred line or variety of popcorn. This precaution will help avoid potential injury of susceptible varieties.

Avoid using crop oil concentrates after crop emergence as crop injury may result. Use crop oil concentrates only in dry conditions when corn is less than 5 inches tall when applying XtendiMax® With VaporGrip® Technology.

Use of sprayable fluid fertilizer as the carrier is not recommended for applications of XtendiMax® With VaporGrip® Technology made after corn emergence.

XtendiMax® With VaporGrip® Technology is not registered for use on sweet corn.

Preplant and Preemergence Application in No-Tillage Corn:

Rates: Apply 22 fluid ounces of XtendiMax® With VaporGrip® Technology per acre on medium- or fine-textured soils containing 2.5% or greater organic matter. Use 11 fluid ounces per acre on coarse soils (sand, loamy sand, and sandy loam) or medium- and fine-textured soils with less than 2.5% organic matter.

Timing: XtendiMax® With VaporGrip® Technology can be applied to emerging weeds before, during, or after planting a corn crop. When planting into a legume sod (e.g., alfalfa or clover), apply XtendiMax® With VaporGrip® Technology after 4 – 6 inches of regrowth has occurred

Preemergence Application in Conventional or Reduced Tillage Corn:

Rates: Apply 22 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre on medium- or fine-textured soils containing 2.5% organic matter or more. Do not apply to coarse textured soils (sand, loamy sand, or sandy loam) of any soil with less than 2.5% organic matter until after corn emergence (See Early Postemergence uses below).

Timing: XtendiMax® With VaporGrip® Technology may be applied after planting and prior to corn emergence. Pre-emergence application of XtendiMax® With VaporGrip® Technology does not require mechanical incorporation to become active. A shallow mechanical incorporation is recommended if

application is not followed by adequate rainfall or sprinkler irrigation. Avoid tillage equipment (e.g., drags, harrows) which concentrates treated soil over seed furrow as seed damage could result.

Preemergence control of cocklebur, jimsonweed, and velvetleaf may be reduced if conditions such as low temperature or lack of soil moisture cause delayed or deep germination of weeds.

Early Postemergence Application in All Tillage Systems:

Rates: Apply 22 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre. Reduce the rate to 11 fluid ounces per treated acre if corn is growing on coarse textured soils (sand, loamy sand, and sandy loam).

Timing: Apply between corn emergence and the 5-leaf stage or 8 inches tall, whichever occurs first. Refer to Late Postemergence Applications if the sixth true leaf is emerging from whorl or corn is greater than 8 inches tall.

Late Postemergence Application:

Rate: Apply 11 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre.

Timing: Apply XtendiMax® With VaporGrip® Technology from 8 - 36 inch tall corn or 15 days before tassel emergence, whichever comes first. For best performance, apply when weeds are less than 3 inches tall.

Apply directed spray when corn leaves prevent proper spray.

11.5 Cotton

For directions for use with crops with Xtend Technology see the "CROPS WITH XTEND TECHNOLOGY" section of this label.

Preplant Application:

Apply up to 11 fluid ounces of XtendiMax® With VaporGrip® Technology per acre to control emerged broadleaf weeds prior to planting cotton in conventional or conservation tillage systems.

For best performance, apply XtendiMax® With VaporGrip® Technology when weeds are in the 2 - 4 leaf stage and rosettes are less than 2 inches across.

Following application of XtendiMax® With VaporGrip® Technology and a minimum accumulation of 1 inch of rainfall or overhead irrigation, allow a minimum of 21 days between treatment and planting per application of 11 fluid ounces per acre or less. This plant back interval must be observed prior to planting cotton.

Do not apply preplant to cotton west of the Rockies.

Do not make XtendiMax® With VaporGrip® Technology preplant applications to cotton in geographic areas with average annual rainfall less than 25 inches.

If applying a spring preplant treatment following application of a fall preplant (postharvest) treatment, then the combination of both treatments may not exceed 2 pounds acid equivalent per acre.

11.6 Grass Grown For Seed

Apply 11 - 22 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre on seedling grass after the crop reaches the 3 -5 leaf stage. Apply up to 44 fluid ounces of XtendiMax® With VaporGrip® Technology on well-established perennial grass. For best performance, apply XtendiMax®

With VaporGrip® Technology when weeds are in the 2 - 4 leaf stage and rosettes are less than 2 inches across. Use the higher level of listed rate ranges when treating more mature weeds or dense vegetative growth.

To suppress annual grasses such as brome (downy and ripgut), rattail fescue, and windgrass, apply up to 44 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre in the fall or late summer after harvest and burning of established grass seed crops. Applications should be made immediately following the first irrigation when the soil is moist and before weeds have more than 2 leaves.

Do not apply XtendiMax® With VaporGrip® Technology after the grass seed crop begins to joint.

Refer to the Pasture, Hay, Rangeland, and General Farmstead section for grazing and feeding restrictions.

11.7 Proso Millet

For use only within Colorado, Nebraska, North Dakota, South Dakota, [Optional: **and Wyoming].**

XtendiMax® With VaporGrip® Technology combined with an appropriate tank-mix partner will provide control or suppression of the annual broadleaf weeds listed in **Section 13.**

11.8 Pasture, Hay, Rangeland, And General Farmstead (Noncropland)

XtendiMax® With VaporGrip® Technology is recommended for use on pasture, hay, rangeland, and general farmstead (non-cropland) (including fencerows and non-irrigation ditch banks) for control or suppression of broadleaf weed and brush species listed in Section 12.

XtendiMax® With VaporGrip® Technology may also be applied to non-cropland areas to control broadleaf weeds in noxious weed control programs, districts, or areas including broadcast or spot treatment of roadsides and highways, utilities, railroad, and pipeline rights-of-way. Noxious weeds must be recognized at the state level, but programs may be administered at state, county, or other level.

XtendiMax® With VaporGrip® Technology uses described in this section also pertain to grasses and small grains (forage sorghum, rye, sudangrass, or wheat) grown for grass, forage, fodder, hay and/or pasture use only. Grasses and small grains not grown for grass, forage, fodder, hay and/or pasture must comply with crop-specific uses in this label. Some perennial weeds may be controlled with lower rates of XtendiMax® With VaporGrip® Technology (refer to **Table 1**).

Rates and Timings

Refer to **Table 1** for rate selection based on targeted weed or brush species.

Rates above 44 fluid ounces of XtendiMax® With VaporGrip® Technology per acre are for spot treatments only. Spot treatment is defined as no more than a total of 1000 square feet of treated area per acre. Do not broadcast apply more than 44 fluid ounces per acre.

Retreatments may be made as needed; however, do not exceed a total of 44 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre during a growing season.

Grass grown for hay requires a minimum of 7-days between treatment and harvest.

Crop-Specific Restrictions

Do not apply more than 22 fluid ounces of XtendiMax® With VaporGrip® Technology per acre to small grains grown for pasture.

Newly seeded areas may be severely injured if more than 22 fluid ounces of XtendiMax® With VaporGrip® Technology is applied per acre.

Established grass crops growing under stress can exhibit various injury symptoms that may be more pronounced if herbicides are applied. Bentgrass, carpetgrass, buffalograss, and St. Augustin grass may be injured if more than 22 fluid ounces of XtendiMax® With VaporGrip® Technology is applied per acre. Usually colonial bent grasses are more tolerant than creeping types. Velvet grasses are most easily injured. Treatments will kill or injure alfalfa, clovers, lespedeza, wild winter peas, vetch, and other legumes.

Table 3 lists the timing restrictions for grazing or harvesting hay from treated fields. There are no grazing restrictions for animals other than lactating dairy animals.

Table 3. Timing Restrictions for Lactating Dairy Animals Following Treatment

XtendiMax® With VaporGrip® Technology Rate per Treated Acre (fluid ounces)	Days Before Grazing (days)	Days Before Hay Harvest (days)
Up to 22	7	37
Up to 44	21	51

- **Spot Treatments:** XtendiMax® With VaporGrip® Technology may be applied to individual clumps or small areas of undesirable vegetation using handgun or similar types of application equipment. Apply diluted sprays to allow complete wetting (up to runoff) of foliage and stems.

Cut Surface Treatments:

XtendiMax® With VaporGrip® Technology may be applied as a cut surface treatment for control of unwanted trees and prevention of sprouts of cut trees.

Rate: Mix 1 part XtendiMax® With VaporGrip® Technology with 1 - 3 parts water to create the application solution. Use the lower dilution rate when treating difficult-to-control species.

- **For Frill or Girdle Treatments**: Make a continuous cut or a series of overlapping cuts using an axe to girdle tree trunk. Spray or paint the cut surface with the solution.
- **For Stump Treatments:** Spray or paint freshly cut surface with the water mix. The area adjacent to the bark should be thoroughly wet.

Applications For Control of Dormant Multiflora Rose:

XtendiMax® With VaporGrip® Technology can be applied when plants are dormant as an undiluted spot treatment directly to the soil or as a Lo-Oil basal bark treatment using an oil-water emulsion solution.

- **Spot treatments:** Spot treatment applications of XtendiMax® With VaporGrip® Technology should be applied directly to the soil as close as possible to the root crown but within 6 - 8 inches of the crown. On sloping terrain, apply XtendiMax® With VaporGrip® Technology to the uphill side of the crown. Do not apply when snow or water prevents applying XtendiMax® With VaporGrip® Technology directly to the soil. The use rate of XtendiMax® With VaporGrip® Technology depends on the canopy diameter of the multiflora rose.

  Examples: Use 0.34, 1.38, or 3.23 fluid ounces of XtendiMax® With VaporGrip® Technology respectively, for 5, 10, or 15 feet canopy diameters.

- **Lo-Oil basal bark treatments:** For Lo-Oil basal bark treatments, apply XtendiMax® With VaporGrip® Technology to the basal stem region from the ground line to a height of 12 - 18 inches. Spray until runoff, with special emphasis on covering the root crown. For best results, apply XtendiMax® With VaporGrip® Technology when plants are dormant. Do not apply after bud break or when plants are showing signs of active growth. Do not apply when snow or water prevents applying XtendiMax® With VaporGrip® Technology to the ground line.

To prepare approximately 2 gallons of a Lo-Oil spray solution:

1) Combine 1.5 gallons of water, 1 ounce of emulsifier, 22 fluid ounces of XtendiMax® With VaporGrip® Technology, and 2.5 pints of No. 2 diesel fuel.
2) Adjust the amounts of materials used proportionately to the amount of final spray solution desired.

Do not exceed 8 gallons of spray solution mix applied per acre, per year.

11.9 SMALL GRAINS

11.9.1 Small Grains Not Underseeded To Legumes (fall- and spring-seeded barley, oat, triticale and wheat)

Refer to the specific crop sections below for use rates. When treating difficult to control weeds such as kochia, wild buckwheat, cow cockle, prostrate knotweed, Russian thistle, and prickly lettuce or when dense vegetative growth occurs, use the 4.12 – 5.5 fluid ounces of XtendiMax® With VaporGrip® Technology per acre.

Timings: Apply XtendiMax® With VaporGrip® Technology before, during, or after planting small grains. See specific small grain crop uses below for maximum crop stage. For best performance, apply XtendiMax® With VaporGrip® Technology when weeds are in the 2 - 3 leaf stage and rosettes are less than 2 inches across. Applying XtendiMax® With VaporGrip® Technology to small grains during periods of rapid growth may result in crop leaning. This condition is temporary and will not reduce crop yields.

Restrictions for small grain areas that are grazed or cut for hay are indicated in **Table 3** in Pasture, Hay, Rangeland, and General Farmstead section of this label.

11.9.2 Small Grains: Barley (fall- and spring-seeded)

Early season applications:

Apply 2.75 – 5.5 fluid ounces of XtendiMax® With VaporGrip® Technology to fall-seeded barley prior to the jointing stage. Apply 2.75 – 4.12 fluid ounces of XtendiMax® With VaporGrip® Technology before spring-seeded barley exceeds the 4-leaf stage.

Note: For spring barley varieties that are seeded during the winter months or later, follow the rates and timings given for spring-seeded barley.

Preharvest applications:

XtendiMax® With VaporGrip® Technology can be used to control weeds that may interfere with harvest of fall and spring-seeded barley. Apply 11 fluid ounces of XtendiMax® With VaporGrip® Technology per acre as a broadcast or spot treatment to annual broadleaf weeds when barley is in the hard dough stage and the green color is gone from the nodes (joints) of the stern. Best results will be obtained if application can be made when weeds are actively growing, but before weeds canopy.

Allow a minimum of 7 days between treatment and harvest. Do not use preharvest-treated barley for seed unless a germination test is performed on the seed with an acceptable result of 95% germination or better.

[Optional: Do not make preharvest applications in California.]

11.9.3 Small Grains: Oats (fall- and spring-seeded)

Early season applications:

Apply 2.75 – 5.5 fluid ounces of XtendiMax® With VaporGrip® Technology per acre to fall-seeded oat prior to the jointing stage. Apply 2.75 – 5.5 fluid ounces of XtendiMax® With VaporGrip® Technology before spring-seeded oat exceed the 5-leaf stage.

Do not tank mix XtendiMax® With VaporGrip® Technology with 2,4-D in oat.

Allow a minimum of 7 days between treatment and harvest.

11.9.4 Small Grains: Triticale (fall- and spring-seeded)

Early season applications:

Apply 2.75 – 5.5 fluid ounces of XtendiMax® With VaporGrip® Technology to triticale.

Early season applications to fall-seeded triticale must be made prior to the jointing stage.

Early season applications to spring-seeded triticale must be made before triticale reaches the 6-leaf stage.

11.9.5 Small Grains: Wheat (fall- and spring-seeded)

Early Season Applications:

Apply 2.75 – 5.5 fluid ounces of XtendiMax® With VaporGrip® Technology to wheat unless using one of the fall-seeded wheat specific programs below.

Early season applications to fall-seeded wheat must be made prior to the jointing stage.

Early season applications to spring-seeded wheat must be made before wheat exceeds the 6-leaf stage.

Early developing wheat varieties such as TAM 107, Madison, or Wakefield must receive application between early tillering and the jointing stage. Care should be taken in staging these varieties to be certain that the application occurs prior to the jointing stage.

Specific use programs for fall-seeded wheat only:

[Optional: XtendiMax® With VaporGrip® Technology may be used at 8.25 fluid ounces on fall-seeded wheat in Western Oregon as a spring application only.] In Colorado, Kansas, New Mexico, Oklahoma, and Texas, up to 11 fluid ounces of XtendiMax® With VaporGrip® Technology may be applied on fall-seeded wheat after it exceeds the 3-leaf stage for suppression of perennial weeds, such as field bindweed. Applications may be made in the fall following a frost but before a killing freeze.

Preharvest applications:

XtendiMax® With VaporGrip® Technology can be used to control weeds that may interfere with harvest of wheat. Apply 11 fluid ounces XtendiMax® With VaporGrip® Technology per acre as a broadcast or spot treatment to annual broadleaf weeds when wheat is in the hard dough stage and the green color is gone from the nodes (joints) of the stem. Best results will be obtained if application can be made when weeds are actively growing but before weeds canopy.

Allow a minimum of 7 days between treatment and harvest. Do not use preharvest-treated wheat for seed unless a germination test is performed on the seed with an acceptable result of 95% germination or better.

[Optional: Do not make preharvest applications in California.]

11.10 Sorghum

XtendiMax® With VaporGrip® Technology may be applied preplant, postemergence, or preharvest in sorghum to control many annual broadleaf weeds and to reduce competition from established perennial broadleaf weeds, as well as control their seedlings.

Do not graze or feed treated sorghum forage or silage prior to mature grain stage. If sorghum is grown for pasture or hay, refer to Pasture, Hay, Rangeland, and General Farmstead section of this label for specific grazing and feeding restrictions.

Do not apply XtendiMax® With VaporGrip® Technology to sorghum grown for seed production.

Preplant Application:

Up to 11 fluid ounces of XtendiMax® With VaporGrip® Technology may be applied per acre if applied at least 15 days before sorghum planting.

Postemergence Application:

Up to 11 fluid ounces of XtendiMax® With VaporGrip® Technology per acre may be applied after sorghum is in the spike stage (all sorghum emerged) but before sorghum is 15 inches tall. For best performance, apply XtendiMax® With VaporGrip® Technology when the sorghum crop is in the 3 - 5 leaf stage and weeds are small (less than 3 inches tall). Use drop pipes (drop nozzles) if sorghum is taller than 8 inches. Keep the spray off the sorghum leaves and out of the whorl to reduce the likelihood of crop injury and to improve spray coverage of weed foliage. Applying XtendiMax® With VaporGrip® Technology to sorghum during periods of rapid growth may result in temporary leaning of plants or rolling of leaves. These effects are usually outgrown within 10 - 14 days. Delay harvest until 30 days after a preharvest treatment.

Preharvest uses in Texas and Oklahoma only: Up to 11 fluid ounces of XtendiMax® With VaporGrip® Technology per acre may be applied for weed suppression any time after the sorghum has reached the soft dough stage. An agriculturally approved surfactant may be used to improve performance (read Section 8.0 for tank mixing instructions). Delay harvest until 30 days after a preharvest treatment.

Split Application:

XtendiMax® With VaporGrip® Technology may be applied in split applications: preplant followed by postemergence or preharvest; or postemergence followed by preharvest. Do not exceed 11 fluid ounces per acre, per application or a total of 22 ounces per acre, per season.

11.11 Soybean

For directions for use with crops with Xtend Technology see the "CROPS WITH XTEND TECHNOLOGY" section of this label.

Preplant Applications:

Apply 5.5 -22 fluid ounces of XtendiMax® With VaporGrip® Technology per acre to control emerged broadleaf weeds prior to planting soybeans. Do not exceed 22 fluid ounces of XtendiMax® With VaporGrip® Technology per acre in a spring application prior to planting soybeans.

Following application of XtendiMax® With VaporGrip® Technology and a minimum accumulation of 1 inch rainfall or overhead irrigation, allow a minimum of 14 days between treatment and planting for applications of 11 fluid ounces per acre or less, and allow a minimum of 28 days between treatment and planting for applications of 22 fluid ounces per acre. These plant back intervals must be observed prior to planting soybeans or crop injury may occur.

Do not make XtendiMax® With VaporGrip® Technology preplant applications to soybeans in geographic areas with average annual rainfall less than 25 inches.

Preharvest Applications:

XtendiMax® With VaporGrip® Technology can be used to control many annual and perennial broadleaf weeds and control or suppress many biennial and perennial broadleaf weeds in soybean prior to harvest (refer to **Section 10**). Apply 11 - 44 fluid ounces of XtendiMax® With VaporGrip® Technology per acre as a broadcast or spot treatment to emerged and actively growing weeds after soybean pods have reached mature brown color and at least 75% leaf drop has occurred.

Do not harvest soybeans until 7 days after application.

Treatments may not kill weeds that develop from seed or underground plant parts, such as rhizomes or bulblets, after the effective period for XtendiMax® With VaporGrip® Technology. For seedling control, a follow-up program or other cultural practice could be instituted.

Do not use preharvest-treated soybean for seed unless a germination test is performed on the seed with an acceptable result of 95% germination or better.

Do not feed soybean fodder or hay following a preharvest application of XtendiMax® With VaporGrip® Technology.

[Optional: Do not make preharvest applications in California.]

11.12 Sugarcane

Apply XtendiMax® With VaporGrip® Technology for control of annual, biennial, or perennial broadleaf weeds listed in Section 11. Apply 11 - 33 fluid ounces of XtendiMax® With VaporGrip® Technology per acre for control of annual weeds, 22 - 44 fluid ounces for control of biennial weeds, and 44 fluid ounces for control or suppression of perennial weeds.

Use the higher level of listed rate ranges when treating dense vegetative growth.

A single retreatment may be made as needed, however, do not exceed a total of 88 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre during a growing season.

Timing: XtendiMax® With VaporGrip® Technology may be applied to sugarcane any time after weeds have emerged, but before the close-in stage of sugarcane. Applications of 44 fluid ounces of XtendiMax® With VaporGrip® Technology per acre made over the top of actively growing sugarcane may result in crop injury.

When possible, direct the spray beneath the sugarcane canopy to minimize the likelihood of crop injury. Using directed sprays will also help maximize the spray coverage of weed foliage.

Allow a minimum of 87 days between treatment and harvest.

11.13 Farmstead Turf (noncropland) and Sod Farms

Do not use on residential sites.

For use in general farmstead (noncropland) and sod farms, apply 4.12 – 44 fluid ounces of XtendiMax® With VaporGrip® Technology per acre to control or suppress growth of many annual, biennial, and some perennial broadleaf weeds commonly found in turf. XtendiMax® With VaporGrip® Technology will also suppress many other listed perennial broadleaf weeds and woody brush and vine species. Refer to Table 1 for rate recommendations based on targeted weed or brush species and growth stage.

Repeat treatments may be made as needed; however, do not exceed 44 fluid ounces of XtendiMax® With VaporGrip® Technology per acre, per growing season.

Apply 30 - 200 gallons of diluted spray per treated acre (3 - 17 quarts of water per 1,000 square feet), depending on density or height of weeds treated and on the type of equipment used.

To avoid injury to newly seeded grasses, delay application of XtendiMax® With VaporGrip® Technology until after the second mowing. Furthermore, applying more than 16 fluid ounces of XtendiMax® With

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VaporGrip® Technology per treated acre may cause noticeable stunting or discoloration of susceptible grass species such as bentgrass, carpetgrass, buffalograss, and St. Augustinegrass.

In areas where roots of susceptible plants extend, do not apply more than 5.5 fluid ounces of XtendiMax® With VaporGrip® Technology per treated acre on coarse-textured (sandy-type) soils, or in excess of 8 fluid ounces per treated acre on fine-textured soils. Do not make repeat applications in these areas for 30 days and until previous applications of XtendiMax® With VaporGrip® Technology have been activated in the soil by rain or irrigation.

12.0 CROPS WITH XTEND® TECHNOLOGY

COTTON WITH XTENDFLEX® TECHNOLOGY (INCLUDING BOLLGARD II® XTENDFLEX® COTTON, BOLLGARD® 3 XTENDFLEX® COTTON, OR XTENDFLEX® COTTON), ROUNDUP READY 2 XTEND® SOYBEAN, AND XTENDFLEX® SOYBEAN CONTAIN A PATENTED GENE THAT PROVIDES TOLERANCE TO DICAMBA, THE ACTIVE INGREDIENT IN THIS PRODUCT. THIS PRODUCT WILL CAUSE SEVERE CROP INJURY OR DESTRUCTION AND YIELD LOSS IF APPLIED TO COTTON AND SOYBEAN THAT ARE NOT DICAMBA TOLERANT, INCLUDING COTTON AND SOYBEAN WITH A TRAIT ENGINEERED TO CONFER TOLERANCE TO AUXIN HERBICIDES OTHER THAN DICAMBA. FOLLOW THE REQUIREMENTS SET FORTH HEREIN TO PREVENT SEVERE CROP INJURY OR DESTRUCTION AND YIELD LOSS. CONTACT WITH FOLIAGE, GREEN STEMS, OR FRUIT OF CROPS, OR ANY DESIRABLE PLANTS THAT DO NOT CONTAIN A DICAMBA TOLERANCE GENE OR ARE NOT NATURALLY TOLERANT TO DICAMBA, COULD RESULT IN SEVERE PLANT INJURY OR DESTRUCTION.

Information on cotton with XtendFlex® Technology, Roundup Ready 2 Xtend® Soybean, and XtendFlex® Soybean can be obtained from your seed supplier or Monsanto representative. Cotton with XtendFlex® Technology, Roundup Ready 2 Xtend® Soybean, and XtendFlex® Soybean must be purchased from an authorized licensed seed supplier.

Note: Cotton with XtendFlex® Technology, Roundup Ready 2 Xtend® Soybean, and XtendFlex® Soybean and methods of controlling weeds and applying dicamba in a Cotton with XtendFlex® Technology, Roundup Ready 2 Xtend® Soybean, and XtendFlex® Soybean crop are protected under U.S. patent law. No license to use Cotton with XtendFlex® Technology, Roundup Ready 2 Xtend® Soybean, and XtendFlex® Soybean is granted or implied with the purchase of this herbicide product. Cotton with XtendFlex® Technology, Roundup Ready 2 Xtend® Soybean, and XtendFlex® Soybean are owned by Monsanto and a license must be obtained from Monsanto before using it. Contact your Authorized Monsanto Retailer for information on obtaining a license to Cotton with XtendFlex® Technology, Roundup Ready 2 Xtend® Soybean, and XtendFlex® Soybean.

12.1 Cotton with XtendFlex® Technology

DO NOT combine these instructions with other instructions in the "COTTON" Section of **this** label for use over crops that do not contain the dicamba tolerance trait.

TYPES OF APPLICATIONS: Burndown/Early Preplant; Preplant; At-Planting; Preemergence; Postemergence (In-crop); Lay-By; Post-Direct

USE INSTRUCTIONS
Apply this product in a minimum of 15 gallons of spray solution per acre as a broadcast application. For best performance, control weeds early when they are less than 4 inches. Timely application will improve control and reduce weed competition. Refer to the following table for maximum application rates of this product with cotton with XtendFlex® Technology.

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Maximum Application Rates	
Combined total per year for all applications	88 fluid ounces per acre (2.0 lb. a.e. dicamba per acre)
Total of all Burndown/Early Preplant, Preplant, At-Planting, and Preemergence applications	44 fluid ounces per acre (1.0 lb. a.e. dicamba per acre)
Total of all in-crop applications up to 60 days after planting	44 fluid ounces per acre (1.0 lb. a.e. dicamba per acre)
Maximum In-crop, single application	22 fluid ounces per acre (0.5 lb. a.e. dicamba per acre)
Maximum lay-by or post-direct, single application	22 fluid ounces per acre (0.5 lb. a.e. dicamba per acre)

a.e. – acid equivalent

Refer to Table 1 for application rates for weed type and growth stage controlled by this product. Maximum in-crop application rate should be used when treating tough to control weeds, dense vegetative growth or weeds with a well-established root system.

Burndown/Early Preplant, Preplant, At-Planting, Preemergence
USE INSTRUCTIONS: This product may be used to control broadleaf weeds and may be applied before, during or immediately after planting cotton with XtendFlex® Technology. Refer to the "WEEDS CONTROLLED" section of this label for XtendiMax® With VaporGrip® Technology for specific weeds controlled.

RESTRICTIONS:

- The maximum combined quantity of this product that may be applied for all burndown/early preplant, preplant, at-planting, and preemergence applications is 44 fluid ounces (1.0 lb a.e. dicamba) per acre per season.
- The maximum application rate for a single, burndown/early preplant, preplant, at-planting, or preemergence application must not exceed 44 fluid ounces (1.0 lb a.e. dicamba) per acre.
- Do not apply less than 22 fluid ounces (0.5 lb a.e. dicamba) per acre.

Postemergence (In-crop)
USE INSTRUCTIONS: This product may be used to control broadleaf weeds in cotton with XtendFlex® Technology. In-crop applications of this product can be made up to 60 days after planting.

The maximum and minimum rate for any single, in-crop application is 22 fluid ounces (0.5 lb a.e. dicamba) per acre. Using the appropriate application rate may reduce the selection for resistant weeds. For best performance, control weeds early when they are less than 4 inches. To the extent permitted by applicable law, Monsanto Company does not warrant product performance of applications to labeled weeds greater than 4 inches in height. Sequential applications of this product may be necessary to control new flushes of weeds or on tough-to-control weeds. Allow at least 7 days between applications. A pre-harvest application of this product may be made up to 7 days before harvest.

Postemergence applications of this product mixed with adjuvants may cause a leaf response to cotton with XtendFlex® Technology. The symptoms usually appear as necrotic spots on fully expanded leaves. EC-based products that are tank mixed with products containing dicamba may increase the severity of the leaf damage.

RESTRICTIONS:

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- The combined total applied in-crop up to 60 days after planting must not exceed 44 fluid ounces (1.0 lb a.e. dicamba) per acre and a maximum of two in-crop applications.
- The maximum single, in-crop application rate must not exceed 22 fluid ounces (0.5 lb a.e. dicamba).
- The combined total per year for all applications must not exceed 88 fluid ounces (2.0 lb a.e. dicamba) per acre. For example, if a preplant application of 44 fluid ounces (1.0 lb a.e. dicamba) per acre was made, then the combined total in-crop applications must not exceed 44 fluid ounces (1.0 lb a.e. dicamba) per acre.
- Allow at least 7 days between applications and allow at least 7 days between final application and harvest or feeding of cottonseed and cotton gin by-products.

Lay-by, Post-direct Applications
USE INSTRUCTIONS: This product may be used to control broadleaf weeds and may be applied lay-by or post-direct in cotton with XtendFlex® Technology. Refer to the "WEEDS CONTROLLED" section of this label for XtendiMax® With VaporGrip® Technology for specific weeds controlled.

RESTRICTIONS:
- The maximum combined quantity of this product that may be applied for all lay-by or post-direct applications is 88 fluid ounces (2.0 lb a.e. dicamba) per acre per season.
- The maximum application rate for a single lay-by or post-direct application must not exceed 22 fluid ounces (0.5 lb a.e. dicamba) per acre.
- Do not apply less than 22 fluid ounces (0.5 lb a.e. dicamba) per acre.
- The combined total per year for all applications must not exceed 88 fluid ounces (2.0 lb a.e. dicamba) per acre. For example, if a preplant application of 44 fluid ounces (1.0 lb a.e. dicamba) per acre was made, then the combined total in-crop, lay-by, or post-direct applications must not exceed 44 fluid ounces (1.0 lb a.e. dicamba) per acre.
- Allow at least 7 days between applications and allow at least 7 days between final application and harvest or feeding of cottonseed and cotton gin by-products.

12.2 Roundup Ready 2 Xtend® Soybean and XtendFlex® Soybean

DO NOT combine these instructions with other instructions in the "SOYBEAN" Section of **this** label for use over crops that do not contain the dicamba tolerance trait.

TYPES OF APPLICATIONS: Burndown/Early Preplant; Preplant; At-Planting; Preemergence; Postemergence (In-crop) ; Lay-By; Post-Direct

USE INSTRUCTIONS
Apply this product in a minimum of 15 gallons of spray solution per acre as a broadcast application. For best performance, control weeds early when they are less than 4 inches. Timely application will improve control and reduce weed competition. Refer to the following table for maximum application rates of this product with Roundup Ready 2 Xtend® Soybean and XtendFlex® Soybean.

Maximum Application Rates	
Combined total per year for all applications	88 fluid ounces per acre (2.0 lb. a.e. dicamba per acre)
Total of all Burndown/Early Preplant, Preplant, At-Planting, and Preemergence applications	44 fluid ounces per acre (1.0 lb. a.e. dicamba per acre)
Total of all In-crop applications from emergence up to 45 days after planting	44 fluid ounces per acre (1.0 lb. a.e. dicamba per acre)

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Maximum In-crop, single application	22 fluid ounces per acre (0.5 lb. a.e. dicamba per acre)
Maximum lay-by or post-direct, single application	22 fluid ounces per acre (0.5 lb. a.e. dicamba per acre)

a.e. – acid equivalent

Refer to Table 1 for application rates for weed type and growth stage controlled by this product. Maximum in-crop application rate should be used when treating tough to control weeds, dense vegetative growth or weeds with a well-established root system.

Burndown/Early Preplant, Preplant, At-Planting, Preemergence
USE INSTRUCTIONS: This product may be used to control broadleaf weeds and may be applied before, during or immediately after planting Roundup Ready 2 Xtend® Soybean and XtendFlex® Soybean. Refer to the "WEEDS CONTROLLED" section of this label for specific weeds controlled.

RESTRICTIONS:
- The maximum combined quantity of this product that may be applied for all burndown/early preplant, preplant, at-planting, and preemergence applications is 44 fluid ounces (1.0 lb a.e. dicamba) per acre per season.
- The maximum application rate for a single, burndown/early preplant, preplant, at-planting, or preemergence application must not exceed 44 fluid ounces (1.0 lb a.e. dicamba) per acre.
- Do not apply less than 22 fluid ounces (0.5 lb a.e. dicamba) per acre.

Postemergence (In-crop)
USE INSTRUCTIONS: This product may be used to control broadleaf weeds in Roundup Ready 2 Xtend® Soybean and XtendFlex® Soybean. In-crop applications of this product can be made from emergence up to 45 days after planting.

The maximum and minimum rate for any single, in-crop application is 22 fluid ounces (0.5 lb a.e. dicamba) per acre. Using the appropriate application rate may reduce the selection for resistant weeds. For best performance, control weeds early when they are less than 4 inches. To the extent permitted by applicable law, Monsanto Company does not warrant product performance of applications to labeled weeds greater than 4 inches in height.

A second application of this product may be necessary to control new flushes of weeds and can be made up to 45 days after planting. Allow at least 7 days between applications. For best results, apply XtendiMax® With VaporGrip® Technology after some weed re-growth has occurred.

Application of this product postemergence and under stressful environments may cause temporary loss of turgor, a response commonly described as leaf droop in Roundup Ready 2 Xtend® Soybean and XtendFlex® Soybean. Typically, affected plants recover in 1-3 days depending on the level of droop and environmental conditions.

RESTRICTIONS:
- The combined total application rate in-crop up to 45 days after planting must not exceed 44 fluid ounces (1.0 lb. a.e. dicamba) per acre a maximum of two in-crop applications.
- Do not make in-crop applications of this product more than 45 days after planting.
- The maximum single, in-crop application rate must not exceed 22 fluid ounces (0.5 lb. a.e. dicamba) per acre. The combined total per year for all applications must not exceed 88 fluid ounces (2.0 lb. a.e. dicamba) per acre.
- Allow at least 7 days between final application and harvest or feeding of soybean forage.
- Allow at least 14 days between final application and harvest or feeding of soybean hay.

Lay-by, Post-direct Applications
USE INSTRUCTIONS: This product may be used to control broadleaf weeds and may be applied lay-by or post-direct in Roundup Ready 2 Xtend® Soybean and XtendFlex® Soybean. Refer to the "WEEDS CONTROLLED" section of this label for XtendiMax® With VaporGrip® Technology for specific weeds controlled.

RESTRICTIONS:

- The maximum combined quantity of this product that may be applied for all lay-by or post-direct applications is 44 fluid ounces (1.0 lb a.e. dicamba) per acre per season.
- The maximum application rate for a single lay-by or post-direct application must not exceed 22 fluid ounces (0.5 lb a.e. dicamba) per acre.
- Do not apply less than 22 fluid ounces (0.5 lb a.e. dicamba) per acre.
- The combined total per year for all applications must not exceed 88 fluid ounces (2.0 lb a.e. dicamba) per acre. For example, if a preplant application of 44 fluid ounces (1.0 lb a.e. dicamba) per acre was made, then the combined total in-crop, lay-by, or post-direct applications must not exceed 44 fluid ounces (1.0 lb a.e. dicamba) per acre.
- Allow at least 7 days between final application and harvest or feeding of soybean forage.
- Allow at least 14 days between final application and harvest or feeding of soybean hay.

13.0 WEEDS CONTROLLED

General Weed List, Including ALS-, Glyphosate, and Triazine-Resistant Biotypes

Annuals

Alkanet
Amaranth, Palmer, Powell, Spiny
Aster, Slender
Bedstraw, Catchweed
Beggarweed, Florida
Broomweed, Common
Buckwheat, Tartary, Wild
Buffalobur
Burclover, California
Burcucumber
Buttercup, Corn, Creeping, Roughseed, Western Field
Carpetweed
Catchfly, Nightflowering
Chamomile, Corn
Chevil, Bur
Chickweed, Common
Clovers
Cockle, Corn, Cow, White
Cocklebur, Common
Copperleaf, Hophornbeam
Cornflower (Bachelor Button)
Croton, Tropic, Woolly
Daisy, English
Dragonhead, American
Eveningprimrose, Cutleaf
Falseflax, Smallseed
Fleabane, Annual
Flixweed
Fumitory
Goosefoot, Nettleleaf
Hempnettle
Henbit
Jacobs-Ladder
Jimsonweed
Knawel (German Moss)
Knotweed, Prostrate
Kochia
Ladysthumb
Lambsquarters Common
Lettuce, Miners, Prickly
Mallow, Common, Venice
Marestail (Horseweed)
Mayweed
Morningglory, Ivyleaf, Tall
Mustard, Black, Blue, Tansy, Treacle, Tumble, Wild, Yellowtops
Nightshade, Black, Cutleaf
Pennycress, Field (Fanweed, Frenchweed, Stinkweed)
Pepperweed, Virginia (Peppergrass)
Pigweed, Prostrate, Redroot (Carelessweed), Rough, Smooth, Tumble
Pineappleweed
Poorjoe
Poppy, Red-horned
Puncturevine
Purslane, Common
Pusley, Florida
Radish, Wild
Ragweed, Common, Giant (Buffaloweed), Lance-Leaf
Rocket, London, Yellow
Rubberweed, Bitter (Bitterweed)
Salsify
Senna, Coffee
Sesbania, Hemp
Shepherdpurse
Sicklepod
Sida, Prickly (Teaweed)
Smartweed, Green, Pennsylvania
Sneezeweed, Bitter
Sowthistle, Annual, Spiny
Spanish Needles
Spikeweed, Common
Spurge, Prostrate, Leafy
Spurry, Corn
Starbur, Bristly
Starwort, Little
Sumpweed, Rough

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Sunflower, Common (Wild), Volunteer
Thistle, Russian
Velvetleaf
Waterhemp, Common, Tall
Waterprimrose, Winged
Wormwood

Biennials

Burdock, Common
Carrot, Wild (Queen Anne's Lace)
Cockle, White
Eveningprimrose, Common
Geranium, Carolina
Gromwell
Knapweed, Diffuse, Spotted
Mallow, Dwarf
Plantain, Bracted
Ragwort, Tansy
Starthistle, Yellow
Sweetclover
Teasel
Thistle, Bull, Milk, Musk, Plumeless

Perennials

Alfalfa[1]
Artichoke, Jerusalem
Aster, Spiny, Whiteheath
Bedstraw, Smooth
Bindweed, Field, Hedge
Blueweed, Texas
Bursage, Woollyleaf[1] (Bur Ragweed, Povertyweed)
Buttercup, Tall
Campion, Bladder
Chickweed, Field, Mouseear
Chicory[1]
Clover[1], Hop
Dandelion[1], Common
Dock[1] Broadleaf (Bitterdock), Curly
Dogbane, Hemp
Dogfennel[1] (Cypressweed)
Fern, Bracken
Garlic, Wild
Goldenrod, Canada, Missouri
Goldenweed, Common
Hawkweed
Henbane, Black[1]
Horsenettle, Carolina
Ironweed
Knapweed, Black, Diffuse, Russian[1], Spotted
Milkweed, Climbing, Common, Honeyvine, Western Whorled
Nettle, Stinging
Nightshade, Silverleaf (White Horsenettle)
Onion, Wild
Plaintain, Broadleaf, Buckhorn
Pokeweed
Ragweed, Western
Redvine
Sericia Lespedeza
Smartweed, Swamp
Snakeweed, Broom
Sorrel[1], Red (Sheep Sorrel)
Sowthistle[1], Perennial
Spurge, Leafy
Sundrops
Thistle, Canada, Scotch
Toadflex, Dalmatian
Tropical Soda Apple
Trumpetcreeper (Buckvine)
Vetch
Waterhemlock, Spotted
Waterprimrose, Creeping
Woodsorrel[1], Creeping, Yellow
Wormwood, Absinth, Louisiana
Yankeeweed
Yarrow, Common[1]

[1] Noted perennials may be controlled using lower rates of **XtendiMax® With VaporGrip® Technology** than those recommended for other listed perennial weeds.

Woody Species

Alder
Ash
Aspen
Basswood
Beech
Birch
Blackberry[2]
Blackgum[2]
Cedar[2]
Cherry
Chinquapin
Cottonwood
Creosotebush[2]
Cucumbertree
Dewberry[2]
Dogwood[2]
Elm
Grape
Hawthorn (Thornapple)[2]
Hemlock
Hickory
Honeylocust
Honeysuckle
Hornbeam
Huckleberry
Huisache
Ivy, Poison
Kudzu
Locust, Black
Maple
Mesquite
Oak
Oak, Poison
Olive, Russian
Persimmon, Eastern
Pine
Plum, Sand (Wild Plum)[2]
Poplar
Rabbitbrush
Redcedar, Eastern[2]
Rose[2], McCartney, Multiflora
Sagebrush, Fringed[2]
Sassafras
Serviceberry
Spicebush
Spruce
Sumac
Sweetgum[2]
Sycamore
Tarbush
Willow

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Witchhazel	Yaupon[2]	Yucca[2]

[2]Growth suppression only

14.0 LIMIT OF WARRANTY AND LIABILITY

Monsanto Company warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes set forth in the Complete Directions for Use label booklet ("Directions") when used in accordance with those Directions under the conditions described therein. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, NO OTHER EXPRESS WARRANTY OR IMPLIED WARRANTY OF FITNESS FOR PARTICULAR PURPOSE OR MERCHANTABILITY IS MADE. This warranty is also subject to the conditions and limitations stated herein. Specifically, and without limiting the foregoing, MONSANTO MAKES NO RECOMMENDATION OR WARRANTY HEREIN REGARDING THE USE OF ANY PRODUCTS THAT MAY APPEAR ON THE WEBSITE REFERENCED IN THE TANK-MIXING INSTRUCTIONS HEREIN, REGARDLESS OF WHETHER SUCH PRODUCT IS USED ALONE OR IN A TANK MIX WITH XTENDIMAX® WITH VAPORGRIP® TECHNOLOGY. BUYER AND ALL USERS ARE SOLELY RESPONSIBLE FOR ANY LACK OF PERFORMANCE, LOSS, OR DAMAGE IN CONNECTION WITH THE USE OR HANDLING OF ANY SUCH PRODUCT ALONE OR IN A TANK MIX WITH XTENDIMAX® WITH VAPORGRIP® TECHNOLOGY.

Buyer and all users shall promptly notify this Company of any claims whether based in contract, negligence, strict liability, other tort or otherwise.

To the extent consistent with applicable law, buyer and all users are responsible for all loss or damage from use or handling which results from conditions beyond the control of this Company, including, but not limited to, incompatibility with products other than those set forth in the Directions, application to or contact with desirable vegetation, failure of this product to control weed biotypes which develop resistance to dicamba, unusual weather, weather conditions which are outside the range considered normal at the application site and for the time period when the product is applied, as well as weather conditions which are outside the application ranges set forth in the Directions, application in any manner not explicitly set forth in the Directions, moisture conditions outside the moisture range specified in the Directions, or the presence of products other than those set forth in the Directions in or on the soil, crop or treated vegetation.

This Company does not warrant any product reformulated or repackaged from this product except in accordance with this Company's stewardship requirements and with express written permission from this Company.

For in-crop (over-the-top) uses on crops with Xtend® Technology, crop safety and weed control performance are not warranted by Monsanto when this product is used in conjunction with "brown bag" or "bin run" seed saved from previous year's production and replanted.

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EPA Reg. No. 524-617

EPA Establishment No. [insert appropriate est. no.]

Lot number [insert appropriate lot number]

Net contents [insert net contents]

Packed for:
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800 N. Lindbergh Blvd.
ST. LOUIS, MISSOURI, 63167 U.S.A.

© [DATE]

Message

From: MARVIN, THOMAS [AG/1920] [thomas.marvin@bayer.com]
Sent: 9/14/2018 9:04:46 PM
To: Keigwin, Richard [Keigwin.Richard@epa.gov]; Messina, Edward [Messina.Edward@epa.gov]; Echeverria, Marietta [Echeverria.Marietta@epa.gov]; Goodis, Michael [Goodis.Michael@epa.gov]; Rosenblatt, Daniel [Rosenblatt.Dan@epa.gov]; Kenny, Daniel [Kenny.Dan@epa.gov]; Baris, Reuben [Baris.Reuben@epa.gov]
Subject: New Submission
Attachments: 50679201_Thesis.Review_RD1865.pdf

Please find attached a courtesy copy of a submission we made today that assesses the Jones Master's Thesis relative to EFED assessment. Note we also submitted sub-county level species data yesterday (as discussed).

We would like to meet again to discuss next steps as soon as possible. Would Monday or Tuesday work?

Thanks,

Tom

Tom Marvin
Director, Federal Regulatory Affairs
1300 I Street, NW
Washington, DC 20005
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REVIEW OF APPLICABILITY OF DATA CONSIDERED FOR ENDANGERED SPECIES ACTION AREA DETERMINATION

TEST GUIDELINE

Not Applicable

STUDY COMPLETION DATE

September 14, 2018

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Company:	Monsanto Company
Company Agent:	Thomas B. Orr
Title:	Regulatory Affairs Manager
Signature:	
Date:	9/14/2018

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GLP COMPLIANCE STATEMENT

This report does not meet the requirements of the Good Laboratory Practice (GLP) standards as specified in 40 CFR Part 160 as it is not a study *per se* but an assessment of data from other studies and reports.

Thomas B. Orr
Regulatory Affairs Manager
Monsanto Company

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Introduction

EPA's Environmental Fate and Effects Division is currently undergoing an Endangered Species Assessment in support of EPA's pending determination of whether to amend the registration of XtendiMax® With VaporGrip® Technology (XtendiMax) prior to its expiration on November 9, 2018. XtendiMax is a low-volatility dicamba formulation specifically designed to manage glyphosate-tolerant and other hard-to-control weeds when applied over-the-top of dicamba-tolerant soybean and cotton crops. Although dicamba formulations have been registered and widely used for decades in lawns, gardens, and agricultural crops such as corn and pastures, XtendiMax is a next-generation formulation with significantly less potential to volatilize. Recognizing soybean and cotton growers' significant need for this new tool, EPA registered XtendiMax on November 9, 2016, based on scientific submissions provided to the agency over the preceding five years, including dozens of scientific studies and field trials assessing the potential for spray drift and volatility. The XtendiMax label was tailored to address that scientific review, with specific requirements to limit the potential for off-target movement, including an in-field buffer, wind speed restrictions, ban on aerial application, and spray nozzle requirements.

As part of its Endangered Species Assessment, we understand that EPA intends to rely on the Master's Thesis of University of Arkansas student, Gordon Travis Jones, presenting an "Evaluation of Dicamba Off-Target Movement and Subsequent Effects on Soybean Offspring" ("Master's Thesis").[1] We understand that the Master's Thesis may form the basis of EPA's determination of the action area for Endangered Species Act purposes. Although the Master's Thesis probes interesting research topics, we have serious concerns with EPA's reliance on this Master's Thesis, given its significant limitations, including its lack of relevance to the regulatory assessment at issue and important questions regarding study design. Furthermore, these results from the Master's Thesis are not consistent with other available dicamba studies. Specifically, the Master's Thesis reported yield reduction to soybean at a distance of 90 meters from application. We are unaware of any other studies of dicamba off-target movement that reports yield reduction at anywhere close to that distance. These results are not suitable for an action area assessment for a number of reasons, including that the Master's Thesis did not use XtendiMax, but another dicamba formulation without VaporGrip Technology, it did not use a drift reduction agent as the proposed label requires, and it used an unapproved nozzle that increases spray drift. Even setting aside these flaws, the 90-meter result is spurious because the Master's Thesis itself showed <5% visual injury and <5% pod malformation at 90 meters. For the reasons described in more detail below, this Master's Thesis is inappropriate to inform either an Endangered Species Act action area assessment or mitigation and restrictions designed to avoid off-target movement because it is not consistent with Xtendimax label requirements and grossly exaggerates potential for off-target movement. In contrast, EPA has obtained numerous

[1] Jones, Gordon Travis, "Evaluation of Dicamba Off-Target Movement and Subsequent Effects on Soybean Offspring" (2018). Theses and Dissertations. 2667. http://scholarworks.uark.edu/etd/2667

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Good Laboratory Practice (GLP) studies that meet EPA's data quality obligations[2] and that have evaluated the potential for off-target movement of dicamba under representative conditions appropriate for the regulatory assessment at hand. A summary of these studies follows the critique of the applicability of the Master's Thesis below.

Critique of Applicability of Master's Thesis for Action Area Determination

As an initial matter, the Master's Thesis is inadequate to support any evaluation of an Endangered Species Act action area because it is wholly irrelevant to the registration decision for XtendiMax **for at least four reasons**. **First**, it did not test XtendiMax with VaporGrip technology, rather it used a diglycolamine (DGA) and a N,N-Bis-(aminopropyl) methylamine (BAPMA) form of dicamba, each of which did not contain VaporGrip. **Second**, the study methodology did not use a drift reduction agent, which would be required for all applications according to the proposed XtendiMax label language. **Third**, the methodology used the AIXR 11003 spray nozzle, which is not approved on the XtendiMax label and would produce a very coarse droplet that would significantly increase spray drift relative to the XtendiMax approved nozzles that produce an extremely-coarse or ultra-course droplet spectrum. **Fourth**, the Master's Thesis evaluated soybean growth stages that are less likely to be exposed when Xtendimax is applied according to label instructions. It evaluated reproductive stages only, so did not capture a representative application since the current label does not allow spray applications after the R1 growth stage. This is important because potential impacts to yield would be greatest at reproductive growth stages and, therefore, would overestimate potential effects of a label-compliant application. While the Master's Thesis alleges that there is a likelihood of dicamba applications being made when non-dicamba resistant soybean are in reproductive growth stages in the vicinity of dicamba-resistant soybean, it offers no support for that assertion and it is inconsistent with typical agronomic practices. Soybeans in the vicinity would be (1) planted with a similar maturity group and (2) planted at similar dates, so it would be unlikely for there to be much difference in growth stage. Moreover, Monsanto encourages growers to spray early which would further reduce the potential for neighboring crops to be close to or at the reproductive stages.

The Master's Thesis also suffers from fundamental flaws regarding the transparency of the data and study design.[3] **First**, it is not a GLP study, nor were quality control measures akin to the GLP standards in place, thus the Master's Thesis does not meet EPA's data quality standards. **Second**, the study's result of 5% yield reduction at 90 meters (Trial 11) is spurious for many reasons. As an initial matter, 19 out of 20 calculated distances to 5% yield reduction are less than 45 meters (as illustrated in the figure below) and the 90-meter measurement is the only one beyond that. Moreover, the calculated distance of 90 meters for 5% yield reduction in Trial 11 is fundamentally inconsistent with all other endpoints in Trial 11, each of which is known to

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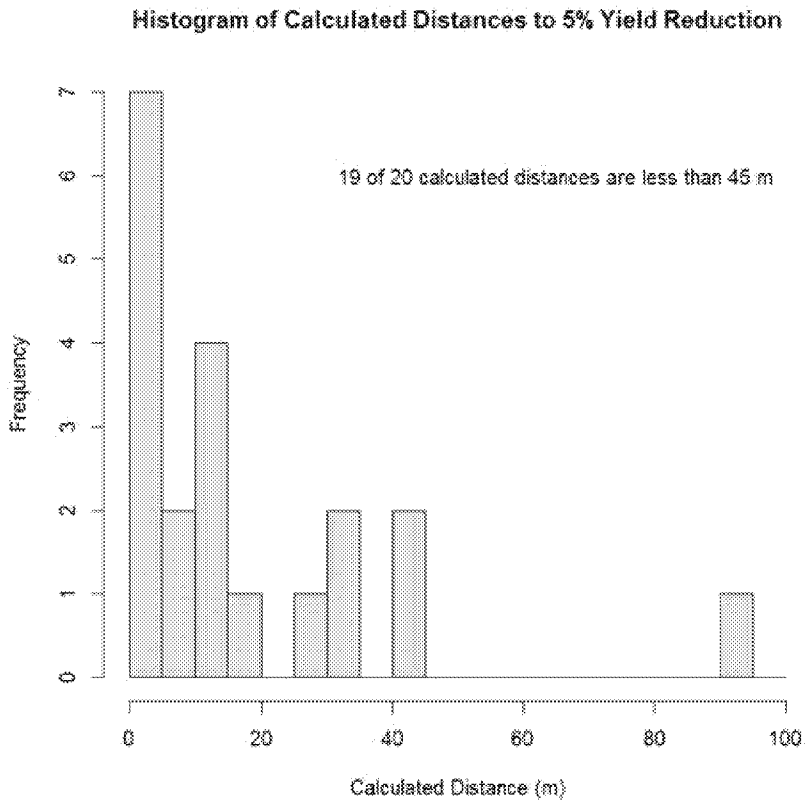
[2] The Good Laboratory Practice Standards codified at 40 C.F.R. Part 160 were promulgated "to assure the quality and integrity of data submitted" to EPA under FIFRA. These and other FIFRA data requirements comply with EPA's information quality obligations under Section 515(a) of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (Public Law 106-554; H.R. 5658).

[3] Bayer does not have access to any raw data or written protocol relative to the Master's Thesis.

be *more sensitive* than yield; however, Trial 11 results reflected the opposite trend in which yield was the most sensitive endpoint. For example, 5% visual injury was reached at 60.6 meters, 5% height reduction at 28 DAA was reached at 0 meters (i.e., no impact on height), 5% height reduction at harvest was reached at 15.4 meters, and 5% pod malformation was reached at 60.6 meters. Close inspection of the yield data for Trial 11 (Appendix Figure 22) illustrates that the calculated 90 meters is the result of spatial confounding, and therefore spurious - note the presence of two spatially-segregated clusters, each of which is flat. **Third,** the study design lacked an untreated check to serve as a control mechanism to confirm that observed effects were related to dicamba exposure and not caused by some other variable. **Fourth**, the Master's Thesis normalized yield results to control plants, which may not be representative of plants located in a downwind area. **Fifth**, reported results in the Master's Thesis rely on the worst-case transect only and do not incorporate variability from measurements at other transects that were not reported.



Ample Relevant Data are Available to Support Action Area Determination

In contrast to the flawed Master's Thesis, EPA has ample relevant data to provide robust support for the Endangered Species Act action area assessment. As discussed in "The Scientific Basis for Understanding the Off-Target Movement Potential of XtendiMax" (MRID 50642701; referred to here as the "White Paper"), since the initial registration in 2016, Monsanto has conducted a total of five additional formulation-specific EPA guideline volatility field studies to

supplement the numerous materials supporting the 2016 XtendiMax registration. In fact, these additional studies even utilized the XtendiMax tank mix that is used on 90% of all dicamba-tolerant soybean and cotton acres: XtendiMax (MON 76980) plus PowerMax (MON 79789, a glyphosate potassium salt) and a drift reduction agent. Monsanto has provided comprehensive data sets developed through GLP studies[4] on all aspects of off-site movement.

Notably, Monsanto submitted a field study conducted in Arizona that evaluated volatility, spray drift, and plant effects (MRID 50642801) and corresponding deposition and air concentration modeling (MRID 50642804), which confirmed that plausible effects of dicamba would be limited to the confines of the treated field, and thus no species off the field would be affected as a result of application. As noted in the White Paper, in designing the Arizona field study protocol, Monsanto solicited feedback from EPA and incorporated study design recommendations from the Agency. Using the flux rates determined from the Arizona field study, Monsanto modeled the dicamba dry and wet deposition and air concentration estimates that could potentially occur downwind of an application of the XtendiMax tank mix (MRID 50642804). The results of the air concentration modeling were below both the NOAEC used in the 2016 XtendiMax registration and the refined NOAEC later determined at EPA's request. As discussed in the White Paper, a spray drift field study conducted in conjunction with the Arizona volatility field study was confirmatory of (1) EPA's 2016 determination that no spray drift would occur outside of the 110-ft. buffer area in amounts that could have an effect on plant height, and (2) a Texas field deposition study that showed that dicamba would be present in amounts below the no-effect rate (NOER) at distances less than 110 feet from the edge of the field (MRID 49770301). Thus, the Arizona volatility and spray drift field study confirms EPA's 2016 conclusion that no buffer is necessary to address concerns regarding volatility and that a 110-ft. buffer is sufficient to address concerns about spray drift.

EPA also has the Kniss (2018) paper that updated the meta-analysis originally completed by Egan et al. (2014), adding 5 studies (11 in total) that evaluated soybean response to dicamba. Results are consistent with the extensive set of GLP (or similar) studies that characterize formulation-specific exposure and effects, and further confirm the adequacy of existing label requirements designed to limit the potential for off-target movement. Specifically, using pooled data across studies, Kniss (2018) found that, when exposed at early vegetative stages (V1-V3), the lowest dicamba dose causing 5% yield loss was 1.9 g/ha; this dose is approximately 6.5 times greater than NOAEC of 0.29 g/ha derived from the GLP vegetative vigor study (Porch, 2009; MRID 477815102). When applied at late vegetative stages (V4-V7), the lowest dicamba dose causing 5% yield loss was 5.7 g/ha, or 19.6 times greater than the NOAEC. Soybean in the flowering stage (R1-R2) was shown to be consistently more sensitive to dicamba exposure. Nevertheless, the lowest dicamba dose causing 5% yield loss was 0.89 g/ha, which is still 3X larger than the NOAEC. The Kniss meta-analysis clearly demonstrates that available peer-reviewed literature overwhelmingly supports EPA's determination that (1) soybean plant height is the most sensitive endpoint and any mitigations that are protective of reductions in plant height will also be protective of yield loss and (2) these results hold true for all growth stages evaluated

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[4] The Australia field study was not a GLP study, however as discussed in the White Paper, there were quality control measures in place akin to the GLP standards to ensure the accuracy and validity of the study.

(early vegetative, late vegetative, and early reproductive growth stages). Kniss also attempted to quantify the relationship between visual symptomology and yield. These results demonstrated that visual symptomology is not a reliable indicator of plant effects; instead, quantitative measures provide a more robust measure of potential effects than visual symptomology. Furthermore, as noted above, plant height, an apical EPA endpoint, would also be protective of potential yield losses.

In summary, EPA has available to them GLP (or similar) studies that characterize potential off target exposure from (1) a formulation-specific field spray drift deposition study and (2) multiple formulation-specific field volatility studies conducted across a range of environmental conditions. Furthermore, non-target plant effects data are available from (1) a GLP vegetative vigor study (Porch, 2009; MRID 477815102) and (2) a refined vapor-phase plant effects endpoint (Gavlick, 2016; MRID 50578901). Collectively, these studies provide a robust, transparent, and defensible means by which to fully characterized potential risk to threatened and endangered species to support a registration decision for XtendiMax.

Conclusion

Monsanto has serious concerns about EPA's reliance on the Master's Thesis for an Endangered Species Assessment. Given the significant limitations of this paper, the Master's Thesis is not suitable to support the regulatory decision at issue. As noted above, it grossly exaggerates potential for off-target movement because the study was conducted using a formulation without VaporGrip Technology under conditions that were inconsistent with the Xtendimax label. In contrast, EPA has numerous regulatory quality data sets that are formulation-specific, conform to EPA guidelines, and follow robust EPA procedures intended to ensure the integrity of the data, and therefore much better suited to address the registration decision and supporting analysis. This voluminous scientific evidence, as summarized in the White Paper, confirms the conclusions regarding spray drift and volatility in EPA's 2016 risk assessment (and subsequent addendums) and registration decision.

ED_005138A_00000161-00009

Message

From: MARVIN, THOMAS [AG/1920] [thomas.marvin@bayer.com]
Sent: 9/7/2018 6:30:44 PM
To: Keigwin, Richard [Keigwin.Richard@epa.gov]; Goodis, Michael [Goodis.Michael@epa.gov]; Messina, Edward [Messina.Edward@epa.gov]; Kenny, Daniel [Kenny.Dan@epa.gov]; Baris, Reuben [Baris.Reuben@epa.gov]; Rosenblatt, Daniel [Rosenblatt.Dan@epa.gov]
Subject: New Submission
Attachments: 50673301_Public.Information.Document_RD1862.pdf

Please find attached a copy of an analysis of publicly available incident information that we submitted today.

Tom Marvin
Director, Federal Regulatory Affairs
1300 I Street, NW
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Cell: 202-676-7846
Desk: 202-383-2851

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Further Discussion of Publicly Available Information on "Incident" Inquiries

TEST GUIDELINE

Not Applicable

STUDY COMPLETION DATE

September 7, 2018

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Date:	9/7/2018

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This report does not meet the requirements of the Good Laboratory Practice (GLP) standards as specified in 40 CFR Part 160 as it is not a study *per se* but an assessment of data from other studies and reports.

Thomas B. Orr
Regulatory Affairs Manager
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Further Discussion of Publicly Available Information on "Incident" Inquiries

On August 3, 2018, Monsanto submitted to EPA numerous new field trials and studies, along with appropriate modeling, demonstrating why, as a matter of hard science, EPA should have confidence that the Xtendimax label contains conditions for use, that when followed, are effective to prevent off-target movement "at unacceptable frequencies or levels." In addition to those scientific evaluations, the submission also described Monsanto's on-site evaluations of 450 alleged instances of off-target movement, confirming again through in-depth expert review of each such instance that there is no basis to conclude that the underlying scientific conclusions in the many scientific submissions were incorrect, or that label conditions are insufficient to address the potential for "off-target movement."[1]

Lacking a detailed knowledge of the substantial body of scientific studies presented to EPA, certain observers have speculated publicly that reported allegations of off-target movement in certain states may signal a reason for concern about volatility of Xtendimax, or of other dicamba herbicides currently on the market. Indeed, numerous plaintiffs firms have been using these allegations about off-target movement to actively seek plaintiffs to participate in their class action lawsuits.[2]

Monsanto is aware of two public sources compiling incident inquiry information (the "Compilations"): (1) incident data reported by states to the Association of American Pesticide Control Officials (AAPCO); and (2) an informal survey and compilation of estimates from university weed scientists.[3] It does not appear that the information in either compilation resulted from a detailed on-site analyses or investigation (although the states may have conducted some such inquiries on some of the incidents reported). It does not appear that there was a direct examination of the actual fields underlying the inquiry, or a direct assessment of the potential source or causes of reported symptomology, or direct assessment and confirmation that reported symptomology was

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[1] *See* "The Scientific Basis for Understanding the Off-Target Movement Potential of Xtendimax," MRID 50642701 (August 3, 2018) (hereinafter "Off-Target Movement Paper").

[2] *See, e.g.,* Weitz & Luxenberg, "Weitz & Luxenberg Taking on Monsanto in Dicamba Lawsuits," (available at https://www.weitzlux.com/environmental-pollution/dicamba-litigation/) ("Complaints against the toxic, volatile herbicide dicamba are on the rise…Already, our dicamba attorneys have been hard at work investigating numerous complaints from farmers involving the weed killer dicamba. Millions of acres have been damaged."); Gray, Ritter & Graham, "GRG Accepting Farmer's Dicamba Damage Cases," (available at https://www.grgpc.com/grg-accepting-farmers-dicamba-damage-cases/) ("Farmers, have you suffered dicamba-related damage? Gray, Ritter & Graham, P.C., a firm with a proven history of representing farmers economically hurt through the actions of others, is here to help….Nationally, approximately 2,200 dicamba-related injury investigations have been or are being conducted with more than 3.6 million acres of soybeans demonstrating signs of dicamba damage."); Levin Papantonio, "The Dicamba Drift Crop Damage Lawsuits," (available at https://www.levinlaw.com/dicamba-drift-crop-damage-lawsuit) (same).

[3] Monsanto has also reviewed the agricultural and pesticide regulatory websites for states where Xtend is approved; although many of those websites include a form where growers can report a dicamba complaint, we did not locate any state websites other than North Dakota that identified the number of dicamba complaints in 2018, alleged impacted acreage or other supporting information.

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consistent with dicamba exposure, or dicamba exposure alone, rather than the myriad of other potential causes of the reported symptomology. It also does not appear that the compiled information reports whether any of the alleged incidents actually resulted in impacts on crop yield or other harm. For one of the sources, the persons compiling this information acknowledge that the information was "anecdotal," the product of generalized "estimates" from informal telephone surveys and provided no indication the information was gathered through any rigorous scientific process. Thus, it is very important to understand the inherent limitations of such data when evaluating the entire record.

1. No Inference Of Any Crop "Injury" Can Be Associated with the Compilations

As a threshold matter, the Compilations cannot be used to predict any widespread crop injury in any location. As discussed in Monsanto's August 3, 2018 submission, total U.S. production of soybeans hit record high levels in 2017 notwithstanding a "punishing drought" that plagued the Northern Plains from May through the remainder of the year and "erratic rainfall" that depressed other Midwestern soybean yields.[4] Indeed, 2017 nationwide average soybean yield per acre hit the highest levels of any year in history, with the exception of 2016. Moreover, the available data suggests that in 2017, the highest yield gains occurred in many of the locations from which the highest number of complaints arose. (Lower yields were generally associated with the states and counties experiencing the extreme drought conditions; these were also areas with relatively few complaints about potential off-target movement.) As such, complaints in 2017 about alleged dicamba off-target movement cannot be associated with any widespread yield losses.[5]

In addition, USDA's recent projections regarding 2018 yield similarly indicate no evidence of widespread crop injury from off-target movement. Indeed, USDA projects that nationwide, soybean yields per acre will increase by 5 percent as compared to 2017, reaching levels that are just barely below 2016[6]:

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[4] *See* "Off-Target Movement Paper," pp. 26-31.

[5] *Id.*

[6] *See* USDA National Agricultural Statistics Survey, "Soybeans: Yield by Year, US," available at https://www.nass.usda.gov/Charts_and_Maps/Field_Crops/soyyld.php.

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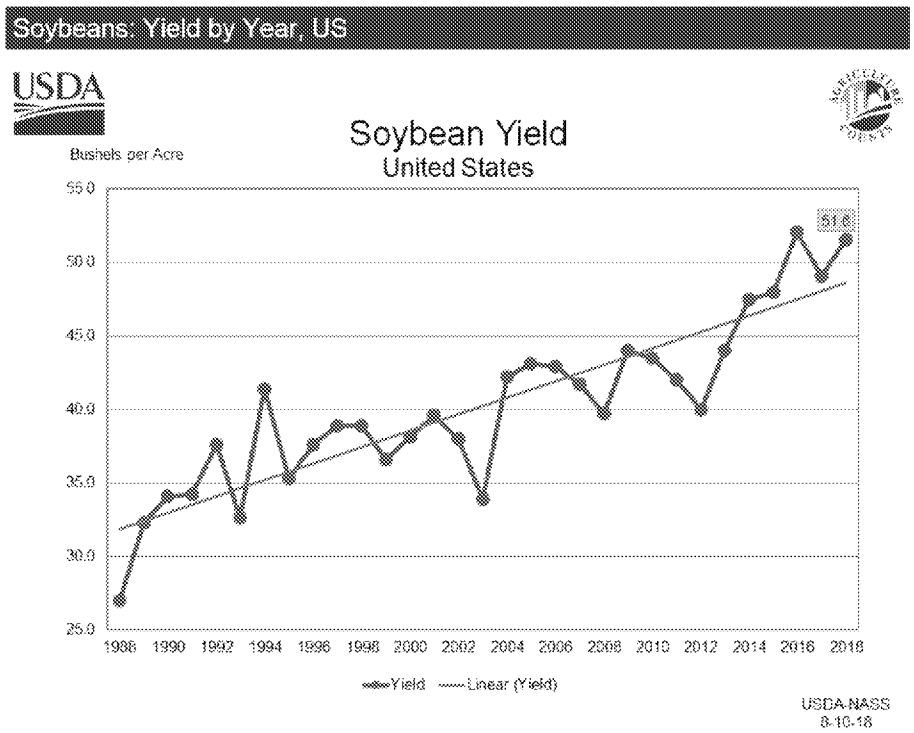

Those nationwide yield projections follow from USDA's projections of state-specific increases in yield per acre in Alabama, Illinois, Indiana, Iowa, Michigan, Minnesota, Nebraska, New York, North Dakota, Ohio, Oklahoma, Pennsylvania, South Dakota, Wisconsin. Many of these states were negatively impacted by weather last year (i.e., Illinois, Iowa, Kansas, North and South Dakota, and Nebraska along with Wisconsin, Michigan, Ohio, Indiana and Minnesota).[7] Thus, as in 2017, 2018 complaints about alleged dicamba off-target movement do not appear to be associated with any widespread yield losses.

2. The Compilations Lack Sufficient Detail To Support Regulatory Decision-making

As discussed in Monsanto's August 3, 2018 submissions, Monsanto in 2018 implemented a detailed process for evaluating inquiries into off target movement, whether reported by herbicide applicators or by non-applicators. Monsanto's Field Engagement Specialists objectively evaluated every inquiry reported to us, an evaluation that most critically included a visit to every field or site

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[7] Missouri is projected to experience an 8 percent loss in yield in 2018 owing to a debilitating drought – ranked as "exceptional drought" (the most extreme) by U.S. Drought Monitor – that has prompted USDA to offer millions in grant assistance money to Missouri farmers and ranchers. "Extreme" conditions currently cover 19 percent of the state, while "severe drought" currently impacts 43 percent of the state. *See* AgWeb, "Some Missouri Fields Revealing Single Digit Yields Due to Drought" (August 10, 2018) (available at https://www.agweb.com/article/some-missouri-fields-revealing-single-digit-yields-due-to-drought/). Arkansas similarly is experiencing a drought (with over 60% of Arkansas was in moderate drought and 89% was abnormally dry), and USDA is predicting a 2 percent yield loss there. *See* U.S. Drought Monitor (available at https://www.drought.gov/drought/states/arkansas).

allegedly affected as soon as possible after reporting of an incident, with the goal of visiting sites within three business days after a return call is received. For incidents reported by non-applicators, the Field Engagement Specialists assessed the allegedly-injured field to identify symptomology and impacted crops. All relevant facts were documented, including a precise measure of potentially impacted fields. Expert panels, independent from the Field Engagement Specialists, reviewed and evaluated all of the facts collected through this process. The data then were inputted and mapped in a database with a summary of conclusions obtained from the field inquiry. [8]

The results of Monsanto's research demonstrate why this type of detailed, site-specific inquiry is critical. For example, in a number of cases the Field Engagement Specialists were unable to identify any symptomology in the fields allegedly damaged; in others, only a very small fraction of the field exhibited any symptoms at all (*e.g.,* 0.6 acres of a 146 acre field showed minor leaf cupping). Overall, Monsanto found that the number of acres with potential symptomology of some type was low – only about 14,345 acres.[9] These site-specific inquiries were critical for obtaining sufficient data to determine *whether* any symptomology was consistent with dicamba exposure, whether that exposure could have been caused by Xtendimax and, if so, *why* the Xtendimax application potentially caused that symptomology – which in turn enables Monsanto and EPA to evaluate what, if any, label amplifications would be most efficacious in preventing such incidents in the future.

At the beginning of the 2018 growing season, AAPCO instituted a dicamba survey where it asks state pesticide officials to report regularly on drift incidents reported to the state as of that date in 2018. Although we are confident the AAPCO data are an accurate reflection of what the states have provided to AAPCO, unfortunately it simply is not complete or consistent enough to draw any reliable conclusions. As indicated, it does not appear to reflect an investigative analysis, conclusions based on direct examination of subject fields, and contains no indication of what symptomology was observed by a state official (if any) and what the causes were, and whether any yield impact resulted.

Moreover, some states (including Kansas) elected not to participate in the AAPCO survey, while others (including Arizona, Georgia, Kentucky, Oklahoma, Tennessee and Texas) responded inconsistently. While many states reported the total number of complaints, the number of auxin complaints and the number of dicamba complaints, fewer reported the alleged acreage showing symptomology – and none provide the kind of detail reflective of an in-depth investigation. Thus, for example, where a state reports a specific amount of acreage, it is unclear whether that report is an estimate of the total size of the field, an estimate of that portion of the field that the caller believed showed symptomology, or an actual measurement performed by a state official of either. As noted above, Monsanto's site investigations found that in some cases where a complaint was lodged, there was no visible symptomology; in others, the cause was not dicamba or was likely the more volatile dicamba formulations that are permitted to be used on corn, small grains and pastures without Xtendimax's strict label conditions. Without such a thorough on-site investigation, one cannot determine whether offsite incidents are occurring at unacceptable frequencies or levels.

Likewise, the Compilation of estimates from university weed scientists lacks sufficient information to support regulatory decision making. That Compilation contains a listing of "official

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[8] *See* "Off-Target Movement Paper," pp. 31-45.

[9] Additional detail on the results of Monsanto's site-specific investigations can be found in Monsanto's "Off-Target Movement Paper," pp. 31-45.

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dicamba-related injury investigations as reported by State Department of Agriculture," as well as "estimates of dicamba-injured soybean acreage in the U.S. as reported by University Weed Scientists."[10] In general, the number of investigations cited in this compilation are consistent with the numbers reported by AAPCO (although the compilation identifies numbers in several states that are not reported in the AAPCO database). The compiled estimates of the number of impacted acres, however, are wildly inconsistent with what is reported to AAPCO and with what Monsanto has documented through its detailed investigations. For example, the compilation reports that 25,000 acres were injured in Nebraska, but Nebraska itself reported only 8,500 acres with symptomology of some kind to AAPCO as of the same date; similarly, the compilation reports that 500,000 acres were injured in Illinois, but Illinois reported only 5,000 acres to AAPCO. This is a one hundred-fold difference!

Importantly, these compiled figures are "**estimates** of dicamba-injured soybean acreage from university weed scientists" – and include no information on *how* those estimates are determined, nor even any assurances that the estimates involved an actual examination of the fields at issue. At a minimum, it appears that the estimates assume that in each instance the entire field was damaged even if, in fact, only a very small fraction of the field exhibited any symptoms at all, such as the case described above where Monsanto's investigation revealed that only 0.6 acres of a 146 acre field showed minor leaf cupping. Moreover, there is no indication that any thorough on-site investigations were conducted to assess whether the cause of symptomology was dicamba, XtendiMax, other pesticides, environmental stress, or whether dicamba applications in nearby corn, small grain or pasture resulted in the alleged symptomology.[11] Thus, this compilation also simply does not provide enough data to allow a determination of whether offsite incidents are occurring at unacceptable frequencies or levels.

In any event, of the alleged 1.1 million acres of dicamba-injured soybeans, the compilation reports that 400,000 acres (36%) is in Arkansas – *where all dicamba has been banned since before the 2018 growing season* (and where Xtendimax has never been sold). When considering whether to reregister XtendiMax, EPA should not give any weight to incidents in a state where use of the active ingredient has been banned, and where the product at issue (Xtendimax) has never been sold. The university weed scientist compilation also suggests that 500,000 acres of damage occurred in Illinois, where Monsanto's research has documented that many (if not most) of the allegedly damaged fields were adjacent, nearby or surrounded by more acres of corn than of Xtend soy – such that, while dicamba might have had some role in symptomology, the dicamba at issue was higher volatility dicamba with none of the use restrictions on Xtendimax that were designed to limit off-target movement. Between them, these two states account for 82% of all of the damage alleged by in the compilation.

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[10] *See* University of Missouri Integrated Pest Management, "July 15 Dicamba injudry update. Different Year, same questions," available at https://ipm.missouri.edu/ipcm/2018/7/July-15-Dicamba-injury-update-different-year-same-questions/ (last visited August 10, 2018).

[11] It is possible that some investigations have been conducted by the university weed scientists, but the results of those investigations are not reported at all in the compilation.

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3. To the Extent The Compilations Are Usable, They Demonstrate A Trend Of Reduced Complaints From 2017-2018 As Improved Applicator Training Was Implemented, Which Is Consistent With Other Sources Of Information

Finally, even if EPA were to credit the compilation's estimates, that data supports the effectiveness of the label amplifications made for the 2018 grower season. A comparison of the AAPCO and university weed scientist acreage estimates and complaint documentation from 2017 with the latest 2018 estimates shows significant reductions in the number of impacted acres and the number of complaints in the 2018 growing season.[12] For example,

Minnesota saw a 96% reduction in complaints and a 99% reduction in impacted acres;

South Dakota saw a 86% reduction in complaints and a 96% reduction in impacted acres;

Tennessee saw a 93% reduction in impacted acres;

North Dakota saw a 92% reduction in impacted acres;

Kentucky saw a 88% reduction in impacted acres;

Kansas saw a 75% reduction in impacted acres;

Missouri saw a 56% reduction in complaints and a 69% reduction in impacted acres;

Nebraska saw a 32% reduction in complaints and a 50% reduction in impacted acres;

North Carolina saw a 53% reduction in complaints;

Indiana saw a 45% reduction in complaints and impacted acres;

Alabama saw a 43% reduction in complaints; and

Mississippi saw a 42% reduction in complaints.

A comparison of the AAPCO complaint documentation from 2017 with the latest 2018 estimates similarly shows significant reductions in the number of complaints in the 2018 growing season. For example,

Tennessee saw a 61% reduction in complaints;

South Dakota saw a 52% reduction in complaints;

Indiana saw a 45% reduction in complaints;

---

[12] Monsanto recognizes that this is somewhat of an apples-to-oranges comparison, as the 2017 numbers were generated in August or later; nonetheless, it is the best data we have available for comparison and subsequent reports are unlikely to result in significant changes to the 2018 numbers.

Alabama saw a 45% reduction in complaints; and

North Carolina saw a 33% reduction in complaints;

Kentucky saw a 29% reduction in complaints; and

Mississippi saw a 24% reduction in complaints.

These numbers underscore the effectiveness of the label amplifications imposed in 2018. And although Illinois reported what appears to be a 43% increase in complaints (and was the driver behind what some have claimed is an increase in incidents in 2018), that increase was the result of a changed reporting methodology between 2017 and 2018. Specifically, Illinois reported individual calls in 2017, and the number of fields allegedly impacted in 2018. So, for example, if one grower called and reported alleged impacts on 20 fields, Illinois would have recorded that as one incident in 2017 and 20 incidents in 2018.

In conclusion, the most scientifically reliable data that is currently available for assessing whether "offsite incidents are … occurring at unacceptable frequencies or levels" are detailed, site-specific evaluations such as those conducted by Monsanto. These assessments amply demonstrate that merely counting the number of inquiries alleging impacts from the off-target movement of XtendiMax provides no reliable indication of whether there was any "incident." Further, it is impossible to use such tallies to draw any valid conclusion about what actually occurred on a subject field. The available evidence further supports the conclusion that the recent label amplifications have made a demonstrable impact in preventing off-target movement of dicamba. But it is still important to recognize that even where a field exhibits symptomology consistent with dicamba exposure, that symptomology by itself does not indicate XtendiMax was the cause, or mean that there will be an impact on plant height or yield – and thus symptomology by itself is not necessarily relevant to EPA's risk assessment.

ED_005138A_00000163-00011

Message

From: Schmid, Emily [Schmid.Emily@epa.gov]
Sent: 9/4/2018 2:22:53 PM
To: SEIFERT-HIGGINS, SIMONE [AG/1005] [simone.seifert-higgins@bayer.com]; MARVIN, THOMAS [AG/1920] [thomas.marvin@monsanto.com]; BHAKTA, TINA [AG/1005] [tina.bhakta@monsanto.com]
CC: Baris, Reuben [Baris.Reuben@epa.gov]; Kenny, Daniel [Kenny.Dan@epa.gov]
Subject: RE: Dicamba Tolerant Corn

Simone,

I'm not sure about what happened with this action before it got to me but the PRIA date is definitely July 1, 2019. We will do everything we can to make the PRIA date but May 15, 2019 won't be possible.

Best regards,
Emily

From: SEIFERT-HIGGINS, SIMONE [AG/1005] [mailto:simone.seifert-higgins@bayer.com]
Sent: Tuesday, September 04, 2018 10:15 AM
To: Schmid, Emily <Schmid.Emily@epa.gov>; SEIFERT-HIGGINS, SIMONE [AG/1005] <simone.seifert-higgins@bayer.com>; MARVIN, THOMAS [AG/1920] <thomas.marvin@monsanto.com>; BHAKTA, TINA [AG/1005] <tina.bhakta@monsanto.com>
Cc: Baris, Reuben <Baris.Reuben@epa.gov>; Kenny, Daniel <Kenny.Dan@epa.gov>
Subject: RE: Dicamba Tolerant Corn

Emily,
Thank you for your follow-up!

Apologies for the back-and-forth but I am surprised to learn about a July 1, 2019 PRIA date for this new corn use. It is my understanding that this action was coded R170 during a manager's meeting on March 1 which was held prior to issuance/receipt of the milestone #2 note (attached).

Are you indicating that it is expected to be difficult to meet the May 15, 2019 deadline? Could you please confirm the PRIA due date for this action.

Regards,
Simone

From: Schmid, Emily [mailto:Schmid.Emily@epa.gov]
Sent: Tuesday, September 04, 2018 7:01 AM
To: SEIFERT-HIGGINS, SIMONE [AG/1005] <simone.seifert-higgins@bayer.com>
Cc: Baris, Reuben <Baris.Reuben@epa.gov>; Kenny, Daniel <Kenny.Dan@epa.gov>
Subject: RE: Dicamba Tolerant Corn

Simone,

Thank you for making me aware of the meeting. However, the PRIA date for the corn use is 7/1/19. With our current resource constraints it has been difficult to complete new uses within the PRIA timeframe so I don't see how it would be possible to complete our review 1-2 months early. I assume the milestone that gave you the date in May was before it was recoded since the decision time for an R298 is 13 months and for R170 it is 15 months.

Let me know if you have any other questions.

Best regards,
Emily

From: SEIFERT-HIGGINS, SIMONE [AG/1005] [mailto:simone.seifert-higgins@bayer.com]
Sent: Monday, August 27, 2018 9:46 AM
To: Schmid, Emily <Schmid.Emily@epa.gov>; SEIFERT-HIGGINS, SIMONE [AG/1005] <simone.seifert-higgins@bayer.com>
Subject: RE: Dicamba Tolerant Corn

Emily,
Thank you for your explanation! As indicated I did not intend to reassign PRIA but wanted to better understand timelines for review and decision-making. Based on the systems-generated milestone #2, PRIA timeline for the proposed dicamba use in dicamba-tolerant (DT) corn is set to be due on May 15, 2019.

I do want to share with you that Monsanto, now Bayer, submitted dicamba data for evaluation at the 2019 Extraordinary Joint FAO/WHO Meeting on Pesticide Residues (JMPR). The Extra JMPR session will be held May 7-17, 2019. Bayer is requesting to amend the existing Codex definition of residue for dicamba to include DCSA (dichlorosalicylic acid), which is the major metabolite in DT crops. Dicamba use over-the-top in/on DT cotton and soy is approved; however, the new use pattern (GAP) for DT corn is pending. While we have obtained permission from the Secretariat to include corn data in our submission, it is desirable to have the corn GAP approved at the time of the JMPR meeting. I do recognize the extremely tight timeline and am aware of the current resource constrains at the EPA; therefore, please don't hesitate to reach out to me if there is any assistance I can provide to facilitate your review.

Looking forward to working with you!

Best regards,

Simone Seifert-Higgins, Ph.D.
Regulatory Affairs Manager

///////////////

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Web: http://www.bayer.com

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From: Schmid, Emily [mailto:Schmid.Emily@epa.gov]
Sent: Thursday, August 23, 2018 10:26 AM
To: SEIFERT-HIGGINS, SIMONE [AG/1005] <simone.seifert-higgins@bayer.com>
Subject: RE: Dicamba Tolerant Corn

Hi Simone,

I think all new GMO uses are given PRIA codes as new food uses since all of the work that goes into reviewing a new use must also be done for a GMO so it is basically a new use. I think if PRIA 4 is ever passed, there will be a more clear [redacted] In the CFR, the tolerance is not specified as genetically modified, it is just listed as corn, soybean, etc. So the new tolerance will be set for a crop that already has a tolerance, therefore it will be amended. I hope this answers your question. If not, you might want to contact Reuben since he works with coding much more than I do.

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Sent: Wednesday, August 22, 2018 4:04 PM

To: Schmid, Emily <Schmid.Emily@epa.gov>
Subject: RE: Dicamba Tolerant Corn

Hi Emily,
I would like to offer some additional explanations to my voice mail related to the HT3 corn submission and your review. While I certainly agree with your assessment to refer to this action as an amendment of an existing tolerance I would like to understand your thoughts that led to your conclusion. Reason for my question it that I originally submitted this petition under PRIA R298 (amendment); however, after some back-and-forth with the PRIA team this action was re-coded as R170 (new use/establishing new tolerance). I have attached respective email correspondence with Mick Yanchulis for your reference.

I would appreciate if you could give me a ring at your convenience at Personal Phone / Ex. 6 to further discuss.

Regards,
Simone

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Cc: MARVIN, THOMAS [AG/1920] <thomas.marvin@monsanto.com>
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U.S. Environmental Protection Agency
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CC: Baris, Reuben [Baris.Reuben@epa.gov]; Kenny, Daniel [Kenny.Dan@epa.gov]
Subject: RE: Dicamba Tolerant Corn
Attachments: 524-617: PRIA TRACKING MILESTONE # 2; HT3 PRIA Code

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Regulatory Affairs Manager

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Subject: RE: Dicamba Tolerant Corn

Emily,
Thank you for your explanation! As indicated I did not intend to reassign PRIA but wanted to better understand timelines for review and decision-making. Based on the systems-generated milestone #2, PRIA timeline for the proposed dicamba use in dicamba-tolerant (DT) corn is set to be due on May 15, 2019.

I do want to share with you that Monsanto, now Bayer, submitted dicamba data for evaluation at the 2019 Extraordinary Joint FAO/WHO Meeting on Pesticide Residues (JMPR). The Extra JMPR session will be held May 7-17, 2019. Bayer is requesting to amend the existing Codex definition of residue for dicamba to include DCSA (dichlorosalicylic acid), which is the major metabolite in DT crops. Dicamba use over-the-top in/on DT cotton and soy is approved; however, the new use pattern (GAP) for DT corn is pending. While we have obtained permission from the Secretariat to include corn data in our submission, it is desirable to have the corn GAP approved at the time of the JMPR meeting. I do recognize the extremely tight timeline and am aware of the current resource constrains at the EPA; therefore, please don't hesitate to reach out to me if there is any assistance I can provide to facilitate your review.

Looking forward to working with you!

Best regards,

Simone Seifert-Higgins, Ph.D.
Regulatory Affairs Manager

Bayer U.S. – Crop Science
700 Chesterfield Parkway West
Chesterfield, MO 63017

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From: Schmid, Emily [mailto:Schmid.Emily@epa.gov]
Sent: Thursday, August 23, 2018 10:26 AM

To: SEIFERT-HIGGINS, SIMONE [AG/1005] <simone.seifert-higgins@bayer.com>
Subject: RE: Dicamba Tolerant Corn

Hi Simone,

I think all new GMO uses are given PRIA codes as new food uses since all of the work that goes into reviewing a new use must also be done for a GMO so it is basically a new use. I think if PRIA 4 is ever passed, there will be a more clear code. In the CFR, the tolerance is not specified as genetically modified, it is just listed as corn, soybean, etc. So the new tolerance will be set for a crop that already has a tolerance, therefore it will be amended. I hope this answers your question. If not, you might want to contact Reuben since he works with coding much more than I do.

Best regards,
Emily

From: SEIFERT-HIGGINS, SIMONE [AG/1005] [mailto:simone.seifert-higgins@bayer.com]
Sent: Wednesday, August 22, 2018 4:04 PM
To: Schmid, Emily <Schmid.Emily@epa.gov>
Subject: RE: Dicamba Tolerant Corn

Hi Emily,
I would like to offer some additional explanations to my voice mail related to the HT3 corn submission and your review. While I certainly agree with your assessment to refer to this action as an amendment of an existing tolerance I would like to understand your thoughts that led to your conclusion. Reason for my question it that I originally submitted this petition under PRIA R298 (amendment); however, after some back-and-forth with the PRIA team this action was re-coded as R170 (new use/establishing new tolerance). I have attached respective email correspondence with Mick Yanchulis for your reference.

I would appreciate if you could give me a ring at your convenience at Ex. 6 Personal Privacy (PP) to further discuss.

Regards,
Simone

From: Schmid, Emily [mailto:Schmid.Emily@epa.gov]
Sent: Wednesday, July 11, 2018 3:25 PM
To: SEIFERT-HIGGINS, SIMONE [AG/1005] <simone.seifert-higgins@monsanto.com>
Cc: MARVIN, THOMAS [AG/1920] <thomas.marvin@monsanto.com>
Subject: Dicamba Tolerant Corn

Good afternoon,

I am the reviewer assigned to the dicamba tolerant corn use you submitted. Could you revise the notice of filing to reflect that this is amending a tolerance instead of establishing a tolerance? Also, please specify the corn... I assume it is field corn? I have attached a cleaned up version that I wanted to let you look at before I sent it in to be published anyway so if you could make those changes to the attached version and make sure you are okay with my edits, that would be great.

Let me know if you have any questions.

Best regards,

Emily Schmid
Biologist
U.S. Environmental Protection Agency

Registration Division
Herbicide Branch

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If improper activity or use is suspected, all available information may be used by the Company for possible disciplinary action, prosecution, civil claim or any remedy or lawful purpose.

Message

From: MARVIN, THOMAS [AG/1920] [thomas.marvin@monsanto.com]
Sent: 8/15/2018 11:52:34 AM
To: Keigwin, Richard [Keigwin.Richard@epa.gov]; Goodis, Michael [Goodis.Michael@epa.gov]; Kenny, Daniel [Kenny.Dan@epa.gov]; Baris, Reuben [Baris.Reuben@epa.gov]; Rosenblatt, Daniel [Rosenblatt.Dan@epa.gov]; Messina, Edward [Messina.Edward@epa.gov]
Subject: New Submission
Attachments: 50653201_Exec.Sum.WhitePaper_RD1861.pdf

Please find attached a courtesy copy of a 4-page executive summary submitted yesterday, which summarizes the larger document submitted on August 3, 2018.

Tom Marvin
Director, Federal Regulatory Affairs
1300 I Street, NW
Washington, DC 20005
Cell: 202-676-7846
Desk: 202-383-2851

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MONSANTO

EXECUTIVE SUMMARY: THE SCIENTIFIC BASIS FOR UNDERSTANDING THE OFF-TARGET MOVEMENT POTENTIAL OF XTENDIMAX

TEST GUIDELINE

Not Applicable

STUDY COMPLETION DATE

August 14, 2018

SPONSOR/PERFORMING TESTING FACILITY

Monsanto Company
800 North Lindbergh Blvd.
St. Louis, MO 63167

NO CLAIM OF CONFIDENTIALITY

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Company:	Monsanto Company
Company Agent:	Tom B. Orr
Title:	Regulatory Affairs Manager
Signature:	
Date:	8/14/2018

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The text above applies only to use of the data or document by the U.S. EPA in accordance with the provisions of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), and not to any other use or use by any other agency or government.

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GLP COMPLIANCE STATEMENT

This report does not meet the requirements of the Good Laboratory Practice (GLP) standards as specified in 40 CFR Part 160 as it is not a study *per se* but an assessment of data from other studies and reports.

Tom B. Orr
Regulatory Affairs Manager
Monsanto Company

ED_005138A_00000174-00003

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Executive Summary: The Scientific Basis for Understanding the Off-Target Movement Potential of XtendiMax

On August 3, 2018, Monsanto submitted to EPA "The Scientific Basis for Understanding the Off-Target Movement Potential of XtendiMax" (MRID 50642701; referred to here as the "White Paper"). That document provides a detailed analyses of the body of data, relevant to EPA's pending determination of whether to amend the registration of Xtendimax® With VaporGrip® Technology (XtendiMax) prior to its expiration on November 9, 2018. XtendiMax is a low-volatility dicamba formulation specifically designed to manage glyphosate-tolerant and other hard-to-control weeds when applied over-the-top of dicamba-tolerant soybean and cotton crops. Although dicamba formulations have been registered and widely used for decades in lawns, gardens, and agricultural crops such as corn and pastures, XtendiMax is a next-generation formulation with significantly less potential to volatilize. Recognizing soybean and cotton growers' significant need for this new tool, EPA registered XtendiMax on November 9, 2016, based on scientific submissions provided to the agency over the preceding five years, including dozens of scientific studies and field trials assessing the potential for spray drift and volatility. The XtendiMax label was tailored to address that scientific review, with specific requirements to limit the potential for off-target movement, including an in-field buffer, wind speed restrictions, ban on aerial application, and spray nozzle requirements. EPA also made explicit in the registration that it would reevaluate the potential for off-target movement prior to approving any registration renewal before November 2018. XtendiMax has been used successfully by growers over the past two years and remains a critical tool for controlling problem weeds that compete with soybean and cotton crops. Enhancements to the label for 2018, including mandatory applicator training, contributed to greater grower success and fewer off-target movement inquiries.

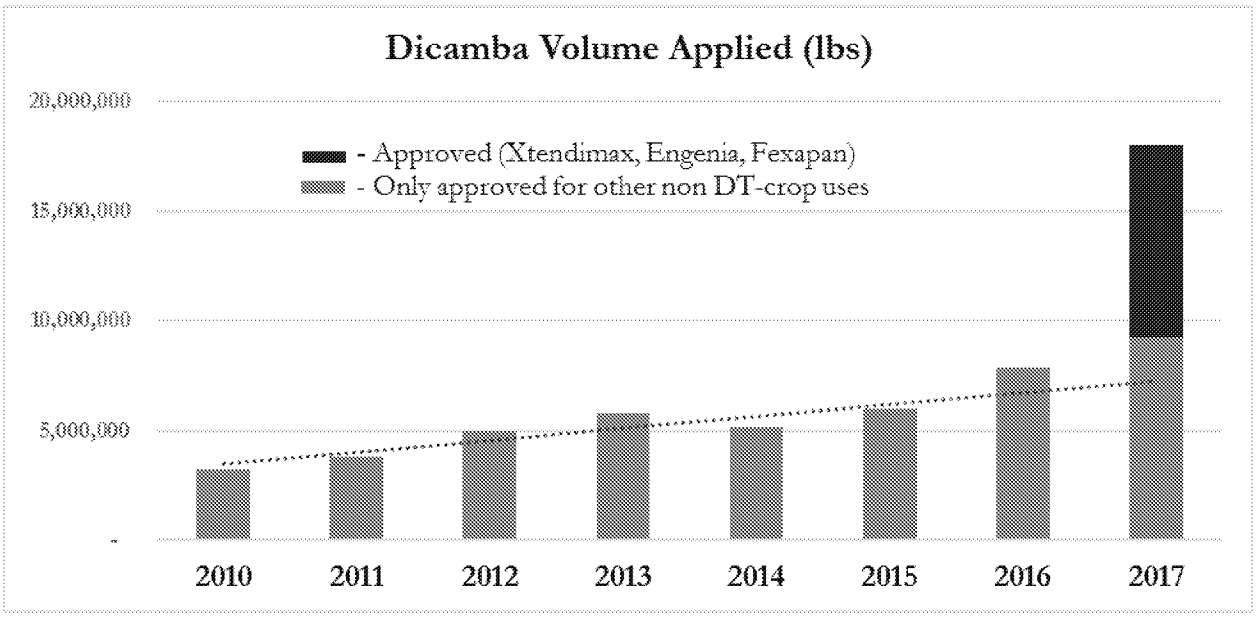
Additional Confirmatory Field Trials, Studies and Analyses

In order to address speculative theories about off-site movement of XtendiMax, Monsanto has performed numerous additional studies and assessments since the November 2016 registration, including five further field studies in locations across the U.S. and Australia, three additional studies modeling the possibility of volatilization, and one additional humidome study. In this effort, Monsanto has worked with EPA and university scientists regarding the protocols for multiple of these field studies, and has performed other specific analyses requested by EPA. Indeed, field studies have been performed over crops planted in a broad range of geographies, temperatures and soil types with a range of pH levels that are highly representative of farming conditions in all U.S. states where cotton or soybean are grown.

All of these post-registration field studies and modeling data confirm the scientific conclusions EPA reached in the 2016 XtendiMax registration—when used according to label directions XtendiMax satisfies applicable registration requirements. Under the XtendiMax label requirements: (1) vapor drift occurring due to volatilization should not result in impacts off the treated field; and (2) spray drift will not occur past the label's required buffer distances in amounts that would have an adverse effect on the endpoints EPA used in its risk assessment. The White Paper summarizes that extensive body of hard scientific evidence, and also confirm the effectiveness and yield benefits growers have realized with XtendiMax.

Inquiries/Complaints Regarding Alleged Dicamba Drift

In addition to presenting new confirmatory data to EPA, the White Paper provides data and analysis regarding public inquiries that allege off-target movement/drift during the 2017 and 2018 growing seasons. It is important to put these inquiries in context. Monsanto implemented a systematic approach to both encourage concerned parties to contact us, and to collect data from potentially impacted fields. This systematic approach, which includes over 450 field visits to date, supports a number of conclusions. *First*, and consistent with the body of regulatory studies submitted to EPA to date, there is no evidence that relevant symptomology has resulted from the labelled use of XtendiMax Herbicide. *Second*, three new dicamba herbicides were approved for over-the-top use in 2017—Engenia®, XtendiMax, FeXapan™—while other higher volatility formulations that lack label restrictions intended to limit the potential for off-target movement remained in widespread use for multiple agricultural and non-agricultural purposes.

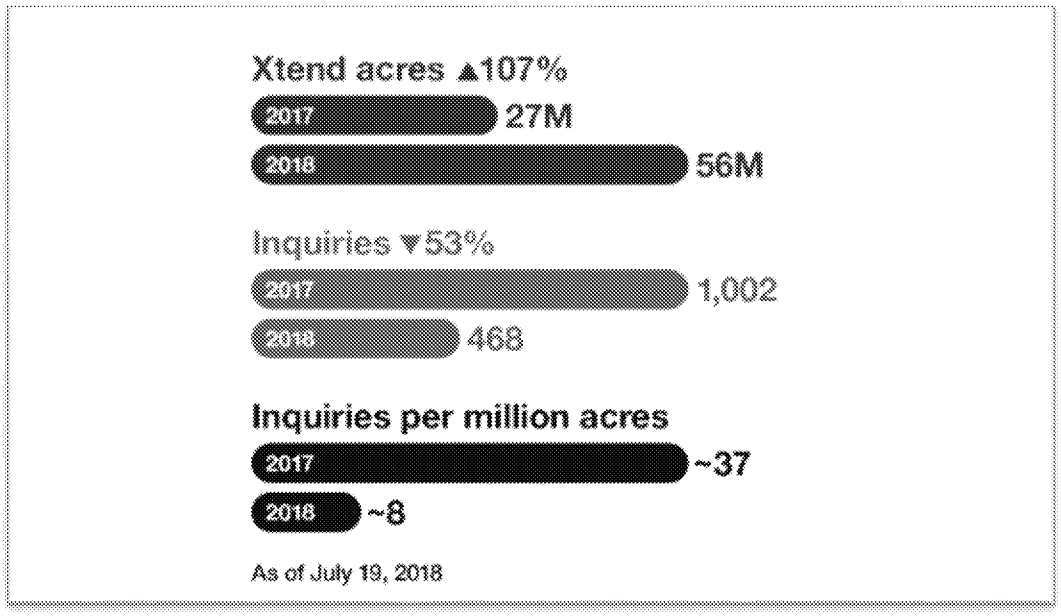


Indeed, Monsanto confirmed that a significant number of potentially impacted fields were surrounded on multiple sides by corn fields, where unrestricted dicamba formulations are routinely sprayed. *Third*, Monsanto documented a number of instances where crops were impacted by other non-dicamba herbicides. *Fourth*, Monsanto documented additional instances where crops were impacted by other phenomena such as disease or weather. *Fifth*, although compliance rates improved since last year, Monsanto documented applications that did not comply with required label conditions. *Finally*, in many circumstances Monsanto discovered that no crop at all was impacted, much less impacted by any herbicide application. XtendiMax volatility could not be confirmed as the cause of *any* incidents of alleged off-target movement.

The lesson from this detailed exercise is clear: Without specific evaluations on site by qualified professionals familiar with the relevant science (including dicamba and other herbicide drift symptomology), reliable assumptions of what actually occurred on the field are not possible. Instead, it is necessary to verify all the relevant facts in order to support informed

conclusions *on an inquiry-by-inquiry basis*. It is not possible to equate the number of uninvestigated calls—which can of course vary based on what is reported in the press—with any actual evidence of alleged harm associated with dicamba drift incidents, let alone incidents of off-target movement from the proper use of XtendiMax. Any such assumptions would be unscientific. We note that the other publicly-available information on "complaints" does not involve detailed expert analysis of what may have actually occurred in those instances.

Moreover, although 2017 saw an increase in reported incidents of alleged dicamba drift in specific locations and geographies, the frequency of inquiries *has dropped substantially this year* both in actual terms and in a per-million acres sprayed basis (as of July 19, 2018), as amplified training requirements for proper application have begun to take hold.



Yield Analyses Confirm No Widespread Injury

USDA yield data further confirms that the volume of complaints alone cannot be used to draw any meaningful conclusions. In addition to the detailed evaluations described above, Monsanto evaluated official USDA yield data both nationwide and in the locations with the highest number of 2017 alleged dicamba complaints. Rather than show yield impacts corresponding to the alleged drift complaints, *yields in areas with the highest numbers of alleged drift incidents generally increased or even hit record yield levels*. While a 2017 late season drought in multiple Northern Plains states impacted soybean yield in those specific locations, a close evaluation of yield data across all states generally identifies *higher yield* in locations with *more of the alleged complaints*—and lower yield in locations with fewer complaints. In other words, *there is no scientific basis to conclude that 2017 complaints regarding alleged dicamba off-target movement actually caused any wide-scale negative yield impacts*. Again, 2017 yields in locations with the most concentrated uses of dicamba herbicides tended to increase. And data presented in Monsanto submissions also verifies yield gains from Xtend crops and XtendiMax herbicide specifically.

Conclusions

In sum, the voluminous scientific evidence discussed in Monsanto's recent submissions to EPA:

- Confirms the conclusions regarding spray drift and volatility in EPA's 2016 risk assessment (and subsequent addendums) and registration decision.

- Demonstrates that there is no material difference in the volatility characteristics of XtendiMax across a wide range of soil types and pH levels, geographies, and temperatures, rebutting any hypotheses that such variations may cause volatility in quantities that will have an adverse effect on endpoints relevant in EPA's risk assessment.

- Confirms that the volume of phone calls cannot be used to draw any meaningful scientific conclusions.

- Identifies a decrease in reported off-target movement inquiries in 2018, and identifies a series of conclusions Monsanto has reached from evaluating hundreds of reports of alleged off-target movement, confirming again that applications of XtendiMax in conformity with the label should not result in adverse effects. This decrease in inquiries reflects the positive impacts of the voluntary label amplifications made in 2017, including grower training.

- Rebuts any hypothesis that off-target movement has caused widespread yield impacts by demonstrating that on a yield per acre basis, soybean and cotton yields were higher than any other year in certain key states where complaints were reported to be highest—even in the face of complaints regarding alleged off-target movement (whether XtendiMax or not).

Message

From: MARVIN, THOMAS [AG/1920] [thomas.marvin@monsanto.com]
Sent: 8/9/2018 12:28:05 AM
To: Keigwin, Richard [Keigwin.Richard@epa.gov]; Goodis, Michael [Goodis.Michael@epa.gov]; Baris, Reuben [Baris.Reuben@epa.gov]; Kenny, Daniel [Kenny.Dan@epa.gov]; Rosenblatt, Daniel [Rosenblatt.Dan@epa.gov]; Messina, Edward [Messina.Edward@epa.gov]
Subject: FW: Update #6 on XtendiMax® with VaporGrip® Technology
Attachments: ATT00001.txt

Just an FYI on our latest report to academics.

Tom Marvin
Director, Federal Regulatory Affairs
1300 I Street, NW
Washington, DC 20005
Cell: 202-676-7846
Desk: 202-383-2851

From: _WITTEN, TY [AG/1000]
Sent: Wednesday, August 08, 2018 3:06 PM
To: _WITTEN, TY [AG/1000] <ty._witten@monsanto.com>
Subject: Update #6 on XtendiMax® with VaporGrip® Technology

Academic colleagues,

Just a slight update from the version I previously sent. Please continue sending me feedback so I can make these updates as useful as possible. Thanks.

- **Update on XtendiMax Field Trials:** We continue to partner with weed scientists this season on XtendiMax® with VaporGrip® Technology field trials, including low tunnel and large scale drift and volatility trials. Dr. Rodrigo Werle at the University of Wisconsin recently hosted a field day to discuss his team's XtendiMax research, which evaluated off-target movement via physical drift and volatility when XtendiMax was applied on roughly 8 acres of a 30-acre field. Dr. Werle's team treated Roundup Ready 2 Xtend® soybeans with a tank mixture of XtendiMax, Roundup PowerMAX® and Intact™. The treated area was surrounded by non-dicamba tolerant soybeans, considered a sensitive crop, which for research purposes allowed for measurement of off-target movement through plant effects. (According to the XtendiMax label, do not spray when the wind is blowing toward adjacent non-dicamba tolerant susceptible crops.)

  Take a look at this video by Dr. Werle for a description of the trial, and review the trial protocol for additional details. Also see the chart below for a list of similar field days hosted by some of our academic partners. If you would like to observe trials at these testing locations, please let me know.

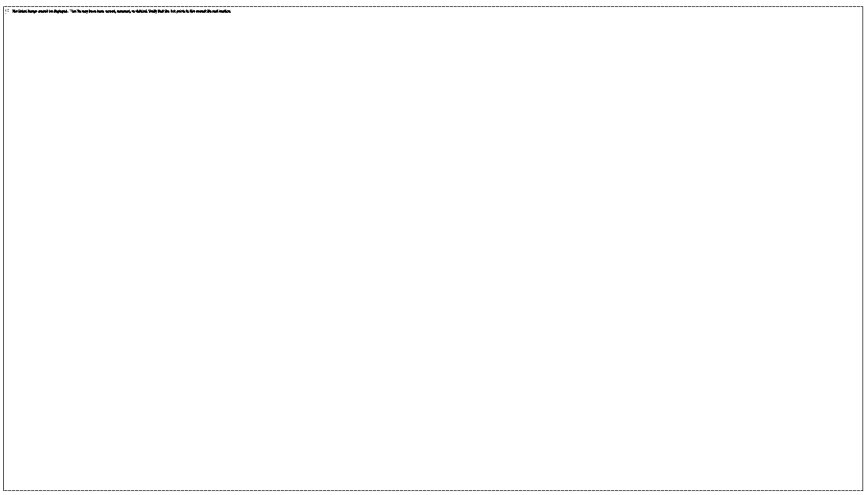
University/Host	Location	Date
University of Nebraska/ Dr. Greg Kruger	North Platte, Nebraska	Aug. 13
University of Guelph/ Dr. Peter Sikkema	London, Ontario	Aug. 17
Purdue University/ Dr. Bryan Young	Montezuma, Indiana	Aug. 22

In addition to these academic trials, we are also conducting Monsanto-led trials under Good Laboratory Practices (GLP). We've recently completed a large-scale drift and volatility trial with an application of XtendiMax® Herbicide with VaporGrip® Technology plus Roundup PowerMAX® and an approved DRA in North Dakota (under a date cutoff exemption from the state). We are also gathering results on trials in Minnesota, Nebraska, Missouri, Arizona and other states. We'll share those results with you as they become available.

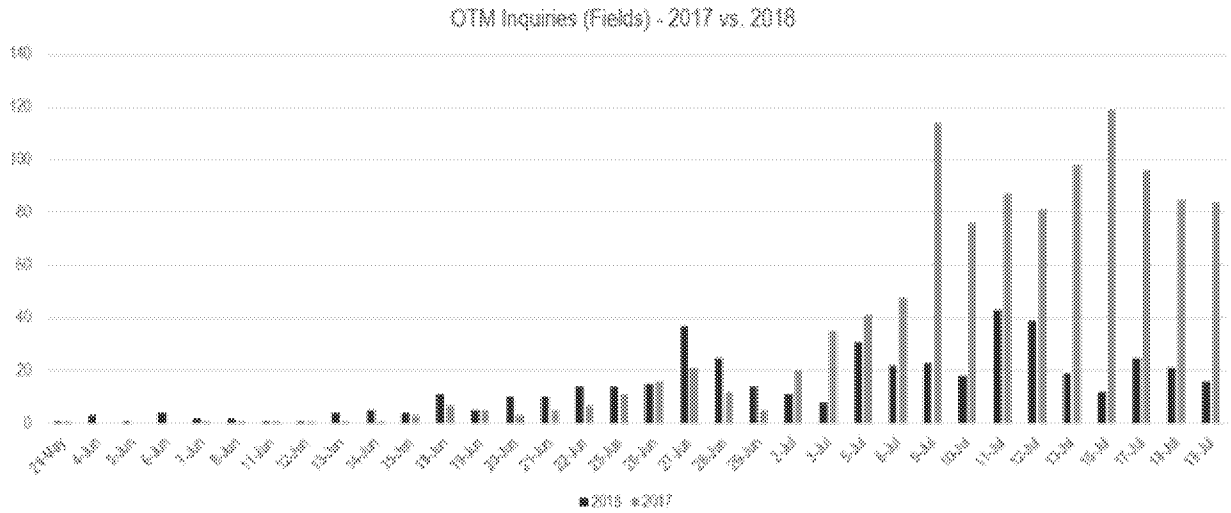
- **Developmental Testing:** Also, we are testing pipeline and future dicamba formulations in various locations across the U.S. Some of these trials are being conducted in cooperation with academics.

- **Dicamba Inquiries[1]:** According to the latest USDA crop progress report (as of August 5), 92% of the soybean crop was blooming, and 67% of the crop is in excellent or good condition (compared to 60% at this time last year). While some applications remain in double crop soybeans and cotton, applications across most of the country are complete, and our grower customers, custom applicators and retailers are reporting success, with on-target applications over broad acreage and outstanding weed control.

  The charts below outline a year-over-year comparison of off-target movement inquiries as of July 19, 2017 and July 19, 2018. This year we've received 53% fewer off-target movement inquiries from applicators and non-applicators compared to this same time last year – 468 in 2018 compared to 1,002 in 2017. That's roughly 9 inquiries per million acres of Xtend soybeans and cotton planted in 2018 (>50M acres total) compared to 40 inquiries per million acres of Xtend soybeans and cotton planted in 2017 (>25M acres total). While we've seen a few timeframes where inquiries have risen and then decreased, overall off-target movement inquiries this season remain far fewer than last season.



Xtend acres based on Aug. 6, 2018 data



As we've walked fields for 450 of the 468 off-target movement inquiries received from both applicators and non-applicators, we've been able to draw some conclusions (based on follow-up on inquiries made on or before July 19).

- The label enhancements and the training conducted in 2018 have had notable success in helping applicators reduce off-target movement. And overall, the incidences of non-compliance with the XtendiMax label were small—and substantially fewer than in 2017. For example, only ***eight*** applicators inadvertently mixed AMS in the tank in 2018—a dramatic improvement from 2017.
- System hygiene/contamination improved dramatically this year as a result of the increased training and the label enhancements. It was the cause of symptomology in approximately 5 percent of reported incidents this season. For example, a large retailer in Illinois estimated they custom applied dicamba on over 175,000 Xtend soybean acres in 2018 and had no tank contamination, compared to tank contamination being the most common reason they received inquiries in 2017.
- Other herbicides remain a factor. A detailed review of the symptomology demonstrated, from non-applicator fields, that in 13 percent of cases this season, dicamba could not have been the cause of the alleged incident. For example, in some cases the symptomology was consistent with 2,4-D exposure.
- We've also seen label non-compliance continue to be a factor. Of the 163 completed evaluations for applicator off-target movement inquiries (as of July 19), the following are the top label requirements for which non-compliance was determined.

Application Requirements (Applicator Reported)	Label Non-Compliance (%)*
Awareness of Nearby Sensitive Crops	66%
Use of Required Buffer	49%
Approved Tank Mix	28%

*Based on 163 applicator evaluations completed as of July 19

Overall these findings tell us that education and training work, and for the 2019 season we have the opportunity for additional training on application requirements like increased awareness of nearby sensitive crops (a critical requirement for any pesticide application). We also have a chance for discussions around the impacts that applications of other dicamba formulations or Group 4 herbicides on corn, small grain, pasture or other fields can have on non-dicamba tolerant soybean fields. Those impacts are particularly evident in seasons like this one that saw weather push back application timing, meaning there was a greater chance that corn and soybean fields may have been receiving post-emergence applications in similar timeframes.

As we move into the final months of the season we continue to ask growers who believe there's symptomology on a field to contact us as quickly as possible at 1-844-RRXTEND. We also invite you to contact us if we can be of assistance, or you have any comments or topics you'd like to discuss.

[1]*Inquiries are defined as the number of fields for which calls are received to 1-844-RRXTEND from applicators or non-applicators. The inquiry figures are not necessarily equal to the number of calls received since a single call could include one or multiple fields. It is also possible that a field could be counted twice if we receive a call from an applicator and a non-applicator about the same field. Please let me know if you have any questions.*

Off-Target Movement Inquiries as of July 19

Inquiries from applicators and non-applicators about potential off-target movement	468
Number of off-target movement inquiries from applicators and non-applicators visited as of July 19	450
Number of off-target movement inquiries where upwind symptomology was observed when XtendiMax was applied*	8**
Number of states from which off-target movement inquiries received	20

***As observed from XtendiMax applicators and supported by applicator reported and/or Climate weather data of wind direction at the time of application**
****No uniform or field-level symptomology was observed. All observed symptomology was adjacent to application field and exhibited pattern and/or gradient**

As of July 19, we've also received 590 inquiries about weed performance[2] and 2 inquiries about crop response.

- **AAPCO Data:** The Association of American Pesticide Control Officials (AAPCO) released its latest state Departments of Agriculture inquiry report this week. You can view AAPCO's latest report here.

[2]These inquiries have involved factors like: application on weeds that aren't controlled by the dicamba mode of action; application that occurred too late, once a weed was larger than 4" or in a flowering stage; and application at an incorrect rate. We are following the conditions of the registration process for these weed performance inquiries.

As always, don't hesitate to reach out to me with any questions about these inquiry details or other topics.

Thanks,
Ty

Dr. Ty Witten
North America Crop Protection Lead
Monsanto Technology Development & Agronomy
800 North Lindbergh Blvd.
St. Louis, MO 63167
Ph#: (314) 694-6528

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Message

From: Annette Bloomberg [annette.bloomberg@bayer.com]
Sent: 5/20/2019 4:33:27 PM
To: Baris, Reuben [Baris.Reuben@epa.gov]
CC: BCSReg_Archive [esepamailbox@bayer.com]
Subject: EFED Risk Assessment for Aminocyclopyrachlor
Attachments: 20190225151144.pdf; 2019.04.05 Letter with Bayer Comments to ODA (002).pdf; Exhibits to 2019-04-05 Bayer Comments to ODA (002).pdf

Hello Reuben:

I hope you had a nice weekend with your family. I appreciate our conversation a couple of weeks ago. I did relay our discussion to Karen and our VM team. We certainly understand the process and are now working with the ranchers to help them understand it as well.

You said that you would reach out to EFED regarding the status of the ACP package. Can you provide any feedback at this time?

Also, I have attached three documents that Bayer sent to the Oregon Department of Ag concerning the ACP incident (via public comment). Looking at the picture, it is clear that the applications were made in the root zone of desirable trees which is a clear violation of the label (see file 20190225151144.pdf). Also, what further exacerbated the situation, ODA noted in one of their reports that future applications were not advised, unfortunately two more applications were applied to the same areas. We are saddened and very disappointed with the ODA rule. Bayer offered training and our stewardship team to help get to the root of the problem, but ODA did not even consider our proposals.

I would really appreciate hearing from you regarding the EFED assessment. Have a good day.
Annette

Freundliche Grüße / Best regards,
Annette M. Bloomberg, Ph.D.

Regulatory Affairs Manager – Vegetation Management
Environmental Science

Science For A Better Life

Environmental Science
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Cary, NC 27513 United States

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