The following draft terms of registration apply to A21472 Plus VaporGrip® Technology (EPA Registration No. 100-1623):

***General Terms***

1. The registration will expire on December 20, 2025.

***Labeling/Relabeling***

The previously approved labeling of A21472 Plus VaporGrip Technology [herein referred to by the alternate brand name: Tavium® Plus VaporGrip® Technology] contains an expiration date of December 20, 2020 and cannot be used beyond that date. New labeling is required on the product beyond this date. Beginning December 21, 2020, before using any product with expired labeling, users must first access a website maintained by Syngenta Crop Protection, LLC, to review directions for use and obtain a copy of the current final printed label, and must have that label in their possession at the time of use.

2. Final Printed Label. You must submit one copy of the final printed labeling that is consistent with the new accepted label to EPA before any existing product already in the channels of trade is relabeled with that label, or before you release any new product for shipment featuring that label. Any changes to the final printed labeling must be submitted to EPA before being used in future production.

3. Posting Updated Information for Users. From December 21, 2020 through December 20, 2025, you must maintain a website and publish the following material and statements in a clear and easily accessible manner:

    a. A copy of the most current final printed label approved by EPA per paragraph 1;
    b. "Tavium Plus VaporGrip Technology is a Restricted Use Pesticide.";
    c. "The label affixed to the container in your possession may contain incomplete or outdated directions for use. Use of this product is prohibited unless the user has received and is in possession of the labeling linked on this website featuring an expiration date of December 20, 2025 at the time of use.";
    d. "Users must comply in all respects with labeling featuring an expiration date of December 20, 2025, regardless of any contrary language on the label physically affixed to any individual container."; and
    e. "If you have any questions about the use of this product, please contact 1-866-Syngent(a) (866-796-4368)."

When relabeling as set forth below, either the sticker described below or the new label (approved on October 27, 2020) must be affixed to *each individual container* of Tavium Plus VaporGrip Technology (EPA Reg. No. 100-1623) that is intended for end use, sale or distribution.

4. Relabeling Product Already in Trade. All product currently in the channels of trade, in retail inventories, in the distribution chain (packaged and released for shipment), and product that was manufactured before December 20, 2020 must be relabeled with a sticker on the container with an approved label (dated October 27, 2020) accompanying the container, or the approved label (per paragraph number 1 above) on the container. If stickering is used then a sufficient number of copies of the current labeling (approved October 27, 2020) listing an expiration date of December 20, 2025 will be placed in the carton to accompany the number of individual containers in the carton. Syngenta Crop Protection agrees to the following:
    a. All relabeling will be conducted in an EPA-registered establishment, and production must be reported per FIFRA Section 7.
    b. The sticker will contain the following information:

i. "Restricted Use Pesticide";
ii. "The label affixed to this container contains incomplete or outdated directions for use. Use of this product is prohibited unless the user has received and is in possession of the current labeling listing an expiration date of December 20, 2025 at the time of use."; and
iii. "User must comply in all respects with new label(ing) listing an expiration date of December 20, 2025, regardless of any contrary language on existing label physically affixed to any individual container."

c. Copies of the approved labels must be provided to distributors and must accompany each stickered container at all times.
d. Communicate efficiently with EPA and Syngenta Crop Protection's entire distribution chain. Specifically:
   i. By December 31, 2020, Syngenta Crop Protection must submit to EPA a list of known distributors and retailers that may have received product with previously-accepted labels. (Such list shall be treated by EPA as confidential business information if submitted under a claim of Confidential Business Information).
   ii. By December 31, 2020, Syngenta Crop Protection must inform all distributors and retailers on that list of the need, as it is represented in this letter, to relabel, of the legal liability that would result from their sale or distribution of product with previously-accepted labels after December 20, 2020, and that relabeling are production activities under FIFRA and no retailer or distributor may begin any production activities until their establishment is registered with EPA.
   iii. For those distributors and retailers that are able to relabel in an EPA-registered establishment, Syngenta Crop Protection must instruct them how to affix the Sticker or the new printed label to each product container, and must supply the new approved labels (dated October 27, 2020) and stickers in order for them to do so.
   iv. For those distributors and retailers that are interested in registering an establishment for pesticide production, Syngenta Crop Protection must refer them to procedures on how to register with EPA as a registered establishment and remind them of FIFRA's production reporting requirements.
e. For those distributors and retailers who do not intend to relabel themselves, Syngenta Crop Protection must inform them who to contact so that Syngenta Crop Protection can immediately reclaim the inventory. If Syngenta Crop Protection performs the relabeling, it must be done at an EPA-registered establishment, and all production must be reported per FIFRA section 7.
f. Syngenta Crop Protection must provide EPA a copy of each communication required above within 30 days of each communication.

5. New Production. Syngenta Crop Protection is responsible for ensuring all product produced, packaged, and released for shipment beginning December 21, 2020 and thereafter bears the new final printed labeling submitted to EPA per paragraph number 1 above. Syngenta Crop Protection must ensure all production activities take place in an EPA-registered establishment and that all production is reported pursuant to FIFRA section 7.

You are advised that if you wish to add/retain a reference to the company's website on your label, then the website becomes "labeling" under FIFRA. If the website content is false or misleading, all products referencing the website would be misbranded and it would be unlawful to sell or distribute them under FIFRA section 12(a)(1)(E). In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Should the Agency find, or if it is brought to our attention, that a website contains false or misleading statements or claims substantially differing from the EPA-accepted registration, the matter will be referred to the EPA's Office of Enforcement and Compliance.

***Herbicide Resistance Management Plan***

6. You must maintain, update and follow an Herbicide Resistance Management Plan (HRM) as described in Appendix D regarding field detection and remediation, education, evaluation, reporting, and best management practices (BMPs).

***Tank Mixing, Spray Drift, and Volatility-Reduction Adjuvant Requirements***

7. You must maintain a website at [ HYPERLINK "http://www.TaviumTankMix.com" ]. That website will include a list of products that have been tested pursuant to Appendix A and found, based upon such testing, not to adversely affect the spray drift properties of Tavium Plus VaporGrip Technology. The website will identify a testing protocol, consistent with Appendix A, that is appropriate for determining whether the tested product will adversely affect the drift properties of Tavium Plus VaporGrip Technology. The website must state that any person seeking to have a product added to the list of approved tank mix partners must perform a study either pursuant to the testing protocol identified on the website or another protocol that has been approved for the particular purpose by EPA, and must submit the test data and results, along with a certification that the studies were performed either pursuant to the testing protocols identified on the website or pursuant to another protocol(s) approved by EPA and that the results of the testing support adding the product to the list of products tested and found not to adversely affect the spray drift properties of Tavium Plus VaporGrip Technology, to Syngenta. Syngenta will determine whether the testing and results conform to the conditions prescribed in this protocol and, depending on the test conditions and results, will either post the product on the website at [ HYPERLINK "http://www.TaviumTankMix.com" ] or notify the third-party entity that the product did not meet the requirements for posting. Once notified by a third party, you will add appropriately certified products to the list no more than 90 days after you receive such notice. Testing of tank-mix products must be conducted in compliance with procedures as stated forth in Appendix A.
8. All test data relating to the impact of tank-mixing any product with Tavium Plus VaporGrip Technology on drift properties of Tavium Plus VaporGrip Technology generated by you or somebody working for you or submitted to Syngenta by a third party, along with a certification indicating whether the study was performed either pursuant to the testing protocols identified on the website or pursuant to other protocols approved by EPA and whether the results of the testing support adding the product to the list of products tested and found not to adversely affect the spray drift properties of Tavium Plus VaporGrip Technology, must be retained by Syngenta. Any and all such records must be submitted to the EPA's Office of Pesticide Programs upon request.
9. The prohibition of using products in a tank-mix with Tavium Plus VaporGrip Technology unless the product used is contained on the list [ HYPERLINK "http://www.TaviumTankMix.com" ], and the identification of the website address, shall be included in educational and information materials developed for Syngenta, including the materials identified in Appendix D, Section B.
10. Testing of any volatility-reduction agent must be conducted in compliance with procedures as set forth in Appendices A and E. Any potential volatility-reduction agent must demonstrate passing results for both wind tunnel testing set forth in Appendix A and humidome testing set forth in Appendix E.
11. Syngenta must maintain a Volatility-Reduction Adjuvant tab (may also be called Volatility Reduction Agent, pH-Buffering Adjuvant, or pH-Buffering Agent) on the website at [ HYPERLINK "http://www.TaviumTankMix.com" ]. The website must identify testing protocols, consistent with Appendices A and E. Products that have been tested pursuant to such testing protocols by Syngenta, and found, based upon testing, to meet the passing requirements according

to Appendices A and E may be added to the list of approved volatility-reduction adjuvant products on the website tab described above. Syngenta must retain copies of all data and analysis from test performed by, or provided to, Syngenta based on the Appendices A and E protocols. Upon the Agency's request, copies of such test data and analysis must be submitted to EPA's Office of Pesticide Programs, along with certification indicating whether the study was performed either pursuant to the testing protocols identified on the website or pursuant to other protocols approved by EPA and whether the results of the testing support adding the product(s) to the list of products tested and found meet the passing requirements of the testing standards in Appendices A and E.

12. If a third party requests the addition of a volatility-reduction adjuvant, at the discretion of Syngenta, the registrant will perform wind tunnel and humidome studies pursuant to the testing protocols in Appendix A and E or request the third-party to perform such studies. Should registrant decline to perform testing, the third-party entity or a testing facility on their behalf must perform a study pursuant to the testing protocol identified on the website and must submit to Syngenta the test data and results, along with certification that the studies were performed pursuant to the testing protocols identified on the website and that the results of the testing support adding the product to the list of approved volatility-reduction adjuvants for Tavium Plus VaporGrip Technology. Syngenta will determine whether the testing and results conform to the conditions prescribed in the protocols and, depending on the test conditions and results, will either post the product on the website at [ HYPERLINK "http://www.TaviumTankMix.com" ] or notify the third-party entity that the product did not meet the requirements for posting. Once notified by a third party, you will add appropriately certified products to the list no more than 90 days after you receive such notice. Syngenta will retain records related to this third-party testing and will supply these records to EPA upon their request.
13. The requirement that an approved volatility-reduction adjuvant must always be tank-mixed with Tavium Plus VaporGrip Technology, and the identification of the website address for [ HYPERLINK "http://www.TaviumTankMix.com" ] containing the list of approved volatility reduction adjuvants shall be included in educational and information materials developed by or for Syngenta, including materials identified in Appendix D, Section B.
14. So long as the Tavium Plus VaporGrip Technology registration continues to require use of a volatility-reduction adjuvant with every application, Syngenta will:
    - Take appropriate action(s) to ensure that a sufficient supply of a qualified volatility-reduction agent is in the channels of trade for all Tavium Plus VaporGrip Technology applications, as described below. To ensure the supply of qualified volatility-reduction agent is sufficient, Syngenta will for the 2021, 2022, 2023, 2024 and 2025 use seasons: (1) project and monitor distribution of Tavium Plus VaporGrip Technology, and (2) monitor available qualified volatility-reduction agent s in relevant channels of trade; and for the 2021 use season (3) use reasonable efforts to make available additional supplies if needed to ensure sufficient quantities of a qualified volatility-reduction agent is available to allow lawful application of the full quantity of Tavium Plus VaporGrip Technology that is available in the channels of trade; and (4) use reasonable efforts, if needed, to maintain capacity to produce an additional qualified volatility-reduction agent (or to cause more of a qualified volatility- reduction agent to be produced) whenever any further need is anticipated for lawful applications with Tavium Plus VaporGrip Technology.
    - Make reasonable efforts with appropriate distribution networks (i) to make qualified volatility- reduction agents available to applicators in all locations where Tavium Plus VaporGrip Technology will be applied, before any applicator would apply Tavium; and (ii) to provide access to a qualified volatility- reduction agent either through the same retail outlets as Tavium Plus VaporGrip Technology, or, if necessary in particular locations, available from other readily accessible sources. Syngenta will provide a list

of qualified volatility-reduction agents through posting information on[ HYPERLINK "http://www.TaviumTankMix.com/" \h ]

- Ensure that all training materials clearly require the mandatory use of a qualified volatility- reduction agent with every Tavium Plus VaporGrip Technology application. Work with State authorities to ensure that appropriate training occurs before any application of Tavium Plus VaporGrip Technology is made.
- Syngenta will make records available to EPA on the qualification of volatility-reduction agents and Syngenta's compliance with the foregoing terms, upon EPA's request.

***Enhanced Reporting***

Syngenta must submit the information identified below to EPA's Office of Pesticide Programs under section 6(a)(2), or under 40 CFR 159.195, unless you have previously submitted that information to EPA's Office of Pesticide Programs. To the extent that this reporting requirement conflicts with or is more narrow than any reporting requirements of section 6(a)(2), 40 CFR part 159, or EPA's letter of March 27, 2020 pursuant to 40 CFR 159.195(c), the broader reporting requirement applies.

15. Information received by telephone or in writing regarding potential damage to non-target vegetation from use of dicamba during the 2021-2025 growing seasons regardless of any determination that the incident resulted from misuse (intentional or accidental). Information must be forwarded to EPA regardless of which dicamba product may have been used and/or whether or not the alleged damage resulted from a product being used according to label directions. Data must be organized by product and state to the extent practicable, and must include all available information regarding acreage involved, plant species involved, severity of damage, date and location (coordinates) of incident, known dicamba applications in vicinity of incident, location of application (coordinates), distance from application to incident, temperature and humidity data at time of application, and similar information received. Incident data must be submitted in narrative form and in a spreadsheet format. This information must be submitted with cumulative totals and be submitted annually, by January 15 (beginning by January 15, 2022) and final report with all then available information due September 30, 2025.
16. Information received by telephone or in writing regarding reports of dicamba-resistant weeds, and cases of weed control failure and/or suspected resistance. All information must be forwarded to EPA regardless of which dicamba product may have been used and/or whether or not the alleged resistance occurred after an application made according to label directions. This information must be submitted annually by January 15 (beginning January 15, 2022) and final report with all then available information due September 30, 2025.
17. Any information received by Syngenta or finding in an analysis conducted by Syngenta that foods/commodities contain dicamba residues from Tavium plus VaporGrip Technology that are not covered by a tolerance or exceed established tolerance levels. This information must be submitted annually by January 15 (beginning January 15, 2022) and final report with all then available information due September 30, 2025.

***Hooded Sprayer Qualification Requirement***

18. Testing of hooded sprayers must be conducted in compliance with procedures as set forth in Appendix F.
19. If Tavium Plus VaporGrip Technology label provides for a reduced buffer when a qualified hooded sprayer is used, Syngenta must maintain a hooded sprayer tab on the website at [ HYPERLINK "http://www.TaviumTankMix.com" ] identifying the qualified hooded sprayers. The website must identify a testing protocol, consistent with Appendix F, that is appropriate for determining whether spray drift of dicamba from the proposed hooded sprayer is equivalent to or less than (*i.e.*, not statistically greater than) that from the established baseline hooded sprayer in Appendix F. Hooded sprayers that have been tested pursuant to Appendix F by Syngenta and found, based upon

such testing, to reduce the spray drift of dicamba to a level that is equivalent to or less than that from the established baseline hooded sprayer identified in Appendix F may be added to the list of qualified hooded sprayers on the website tab described above. Syngenta must retain copies of all data and analysis from tests performed by, or provided to, Syngenta based on the Appendix F protocol. Upon the Agency's request, copies of such test data and analysis must be submitted to EPA's Office of Pesticide Programs, along with certification indicating whether the study was performed pursuant to the testing protocols identified on the website and whether the results of the testing support adding the tested hooded sprayer to the list of products tested and found to result in spray drift of dicamba to a level that is equivalent to or less than that from the established baseline hooded sprayer identified in Appendix F.

20. Additionally, the website must state that any other person or entity seeking to have a hooded sprayer added to Syngenta's s list of qualified hooded sprayers must contact Syngenta Crop Protection prior to any testing for this purpose. At the discretion of Syngenta, Syngenta will either perform a study pursuant to the testing protocol herein or request the third-party to perform such study. Should Syngenta decline to perform testing, the third-party entity or a testing facility on their behalf must perform a study pursuant to the testing protocol identified on the website and must submit to Syngenta the test data and results, along with certification that the studies were performed pursuant to the testing protocol identified on the website and that the results of the testing support adding the hooded sprayer to the list of qualified hooded sprayers for dicamba. Syngenta will certify that the testing and results conform to the conditions prescribed in this protocol and, pursuant to the test conditions and results, will either post the hooded sprayer on the website at [ HYPERLINK "http://www.TaviumTankMix.com" ]_or notify the third-party entity that the hooded sprayer did not meet the requirements for posting. Syngenta will retain records related to this third-party testing of hooded sprayers and will supply these records to EPA upon their request.

21. Dicamba application requirements when using qualified hooded sprayers, the listing of qualified hooded sprayers on the [ HYPERLINK "http://www.TaviumTankMix.com" ]website, and the identification of the website address shall be included in educational and information materials developed by or for Syngenta, including the materials identified in Appendix D, Section B(l).

**Appendix A**

Testing of Tank Mix Products for Spray Drift Properties

Products proposed for tank-mixing with Tavium plus VaporGrip Technology may be added to the list of products that will not adversely affect the spray drift properties of Tavium plus VaporGrip Technology contained on the web site if a study is performed under the testing conditions set forth below; the test information is reported as set forth below; and the results are interpreted as set forth below and the interpretation supports adding the tested product to the list of products that will not adversely affect the spray drift properties of Tavium plus VaporGrip Technology:

Testing Conditions

Spray chamber test using conditions described in ASTM E-2798-11; or Wind Tunnel test using conditions described in EPA Final Generic Verification Protocol for Testing Pesticide Application Spray Drift Reduction Technologies for Row and Field Crops (September 2013)

**Commented [DMU1]:** Note to EPA.. is September 2013 sufficient or is a date needed

| | |
|---|---|
| Testing Media: | Tavium plus VaporGrip Technology + Tavium plus VaporGrip Technology Proposed Tank Mix Product |
| Test Nozzle: | Tee Jet® TTI 11004 at 63 psi |
| Number of Replicates: | 3 for each tested medium |

Reporting

Validation information as summarized in Appendix B

Full droplet spectrum to be reported for each replicate of each tested medium

Perform AGDISP (8.26) modeling run for each replicate droplet spectrum for each tested medium (AGDISP input parameters described in Appendix C)

Establish 110 foot spray drift deposition estimates from AGDISP run on each replicate for each tested medium

Establish mean and standard deviation of 110 foot deposition for the 3 replicates of each tested medium

One-tail (upper bound) t-test (p=0.1) to determine if proposed tank-mix product is above Tavium Plus VaporGrip Technology 110 foot spray drift deposition.

Interpretation of Results

If mean 110 foot deposition for proposed tank-mix product is not statistically greater than mean 110 foot deposition for Tavium Plus VaporGrip Technology, proposed tank-mix product can be added to the list of products that will not adversely affect the spray drift properties of Tavium Plus VaporGrip Technology contained on the web site. If mean 110 foot deposition for proposed tank-mix product is statistically greater than mean 110 foot deposition for Tavium Plus VaporGrip Technology, proposed tank-mix product cannot be added to the list of products that will not adversely affect the spray drift properties of Tavium Plus VaporGrip Technology contained on the web site. Results from other testing protocols will be acceptable for

adding products to the list of products that will not adversely affect the spray drift properties of Tavium Plus VaporGrip Technology provided that EPA has determined in writing that such other protocol is appropriate for such purpose.

**Appendix B**

Validation Criteria

a. Detailed information of instrument setting and measurements
- The distance from the nozzle tips to the laser settings
- Measurements of airspeed and flow rate of liquid

b. Detailed information of test substances
- Volume composition and density of Tavium Plus VaporGrip Technology formulation and tank mixes

c. Summary of the entire spray output distribution for each nozzle/tank mixes with statistical analysis of replicates.

d. Graphical outputs of Sympatec Helos laser diffraction particle size analyzer FOR individual spectrum

e. Report of Dv0.1 (SD), Dv0.5 (SD), and DV0.9 (SD) as well as mean % fines of (< 141pmSD)

**Appendix C**

AGDISP Input Parameters

| Parameter | Value | Comments |
|---|---|---|
| Application Method Section | | |
| Method | Ground | |
| Nozzle Type | Flat fan (Default) | The direct use of the DSD overrides the use of "nozzle type" |
| Boom Pressure | 63 psi | If nozzles/tank mixes were tested at 63 psi. It has to be consistent with tank mix as well as Tavium plus VaporGrip Technology for both TeeJet® and AIXR nozzles |
| Release Height | 3 ft | Default |
| Spray Lines | 20 | Default |
| Meteorology Section | | |
| Wind Type | Single height | Default |
| Wind Speed | 15 mph | Under bound from label |
| Wind Direction | -90 deg | Worst-case and default |
| Temperature | 65 F | Default |
| Relative Humidity | 50% | Default |
| Surface Section | | |
| Angles | 0 | Default |
| Canopy | None | Default |
| Surface Roughness | 0.12 ft | Mean of "crops" cover type |
| Application Technique Section | | |
| Nozzles | 54, even spacing | Standard boom setup |
| DSD | From wind tunnel results, imported in library | |
| Atmospheric stability | Strong | Default |
| Swath Section | | |
| Swath width | 90 ft | Standard boom |
| Swath displacement | 0 ft | Worst-case |
| Spray Material Section | | |
| Spray volume rate | 15 gal/A | From label |
| Volatile/nonvolatile fraction | M 1768 at 1.72% v/v | To calculate volatile/nonvolatile fraction in the tank mix for the model input, provide detailed information of the tested formulations and tank mixes. See sample calculation, below[1] |

[1]The tested mixture was 1.72% (v/v) Tavium. Tavium has a density of 10.2 lb/gal and contains 42.8% (w/v) dicamba DGA salt (2.9 lb acid equivalent/gal).
For example, a 10-gallon batch would contain the following:
Tavium 1.71% * 10 gal = 0.172 gal ; 0.172 gal * 10.2 lb/gal = 1.753 lb
Water 10 gal (1280 fl oz) – 22 fl oz = 1258 fl oz = 82.0157 lb
Total weight 1.753 lb + 82.016 lb = 83.769 lb
Active ingredient fraction: 1.753 lb * 42.8% a.i. = 0.75 lb; 0.75 lb/83.769 lb = 0.00896 (dimensionless)
Non-volatile fraction: 0.00896/0.428 = 0.021 (dimensionless)

**Appendix D**

## HERBICIDE RESISTANCE MANAGEMENT PLAN

**Syngenta must develop a herbicide resistance management plan that includes all of the following elements:**

**A. Field Detection and Remediation Components:**

1. Update and implement an education program for growers, as set forth under the "Educational / Informational Component," below, that identifies appropriate best management practices (BMPs), as set forth under the "Best Management Practices (BMPs) Component," below, to delay, contain, and/or control weed resistance. This plan must convey to growers the importance of complying with BMPs and addressing resistance concerns.
2. If any grower or user informs you of a lack of herbicide efficacy, then you or your representative must (unless denied access by the grower) evaluate the field for "likely resistance" to Tavium Plus VaporGrip Technology for each specific species for which lack of herbicide efficacy is reported by applying the criteria set forth in Norsworthy, *et al.*, "Reducing the Risks of Herbicide Resistance: Best Management Practices and Recommendations," Weed Science 2012 Special Issue: 31–62 (*hereinafter* "Norsworthy criteria")[1] in each specific state. If denied access, Syngenta must document this denial of access.
3. If Syngenta receives information of confirmed resistance to dicamba in a specific state for a specific weed species, then Syngenta must immediately report such confirmation to EPA and applicable state pesticide authority and extension services (e.g., state in which resistance is found). After that time, Syngenta need no longer investigate new reports of lack of herbicide efficacy regarding that specific species in that specific state, but Syngenta must continue to comply with A.2. above in regard to any other weed species in any such state and develop, submit to EPA, and implement a strategy to address the ongoing resistance. In addition, for each grower or user in any jurisdiction who reports a lack of efficacy, Syngenta must continue to make available stewardship information about resistance management to the grower or user throughout their use of this product, regardless of whether resistance is confirmed.
4. Syngenta must keep records of all field evaluations and all grower or user reports of lack efficacy or "likely resistance" for a period of 3 years and make such copies available to EPA upon request.
5. In any case described in A.2. above where one or more of the Norsworthy criteria are met for a weed species not already confirmed to be resistant to dicamba in that specific state, Syngenta must:

   Provide the grower with specific information and recommendations to control and contain likely resistant weeds, including retreatment and/or other non-chemical controls, as appropriate. If requested by grower, Syngenta or its agent must continue to provide information and recommendations in the implementation of weed control measures. At the time of the initial

[1] The Norsworthy "likely herbicide resistance" criteria are: (1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; or (2) a spreading patch of uncontrolled plants of a particular weed species; or (3) surviving plants mixed with controlled individuals of the same species. The identification of any of these criteria in the field indicates that "likely herbicide resistance" is present.

determination that one or more of the Norsworthy criteria are met, and prior to any application of alternative control practices, Syngenta must request that the grower provide Syngenta access to the relevant field(s) to collect sufficient specimens of the likely resistant weeds (potted specimens or seeds) to be able to effectively evaluate the suspected resistant weeds for resistance for further evaluation in the greenhouse or laboratory. Alternately, Syngenta may request that the grower or user provide such specimens, at Syngenta's expense. If access is granted, Syngenta must promptly collect samples of the suspected resistant weeds if available. If viable specimens have been collected, Syngenta must commence greenhouse or laboratory studies to confirm whether resistance is present as soon as practicable following sample collection.

**B. Educational / Informational Component:**

1. Syngenta must develop, annually update, provide to EPA and make available to state pesticide authority and extension service, and implement an education program for growers and users that includes the following elements:
   a. The education program shall identify appropriate best management practices (BMPs), set forth under the "Best Management Practices (BMPs) Component," below, to delay, contain, and/or control weed resistance, and shall convey to growers the importance of complying with BMPs;
   b. The education program shall include at least one written communication regarding herbicide resistance management each year, directed to users of Tavium Plus VaporGrip Technology for use over-the-top on dicamba tolerant soybean or cotton; and
   c. Syngenta must transmit the BMPs to all users of Tavium Plus VaporGrip Technology. In addition to the other requirements of these Terms and Conditions, this transmittal must describe to growers and users the commitments as described in section A.5 about investigations of suspected dicamba-resistant weeds.
   d. All Syngenta herbicide sales representatives must have immediate access to the education program for distribution to growers, users, extension agents, neighboring landowners, and any other interested stakeholder.
2. Syngenta must develop, annually update, provide to EPA, and implement an education program on label requirements for growers and users that includes the following elements:
   a. The education program must include information about how to determine the appropriate buffers so that users have a better understanding what constitutes a buffer on his/her field(s), and recommendations for weed control practices in buffer zones. The education program must also include information on determination of sensitive areas and cutoff date restrictions.
   b. Provide training on the use of broadcast hooded sprayers (e.g., what qualifies as hooded sprayer, appropriate uses, manufactures).
   c. Training for sprayer cleanouts (before and after spraying as indicated on labels).
   d. Training for Bulletins Live 2!.
   e. Training on updated record keeping requirements.
   f. Training should be modified to clearly prohibit the use of the dicamba products not intended for use on DT crops formulation for all application timings.
   g. Training on the use of newly required pH buffering adjuvants (volatility-

reduction adjuvants) and/or drift reduction adjuvants.

h. Training on how users/growers can report incidents and control failures to EPA and states.
i. Provide to EPA the original education program for dicamba users within three months of the issuance of this registration. Provide the educational materials to states that provide their own training. Provide any other stakeholder with educational materials upon request.

**C. Evaluation Component:**

1. Syngenta will annually conduct a survey directed to users of Tavium Plus VaporGrip Technology for use over-the-top of dicamba tolerant soybean or cotton. This survey must be based on a statistically representative sample. The sample size and geographical resolution should be adequate to allow analysis of responses within regions, between regions, and across the United States. Syngenta must submit the draft survey to EPA as well as the survey results. This survey shall evaluate, at a minimum, the following:
   a. Growers' and users' adherence to the terms of the Tavium Plus VaporGrip Technology Use Directions and Label Restrictions, if Tavium Plus VaporGrip Technology is used, and
   b. Whether growers have encountered any perceived issue with non-performance or lack of efficacy of Tavium Plus VaporGrip Technology and, if so, how growers have responded.
   c. Whether growers have reported any issues with non-performance of lack of efficacy of Tavium Plus VaporGrip Technology and how the company representatives have responded.
   d. A question asking about awareness of public records of resistance (e.g., any awareness of popular press or industry publications on dicamba resistance or suspected resistant biotypes).
   e. A question directed to asking about awareness of personal/neighbor reports of resistance.
   f. Application practices for dicamba product applied (rate, time, amount, etc.) to the fields planted with dicamba-resistant seed.

**Commented [DMU2]:** Syngenta will support these points C.1.c – C.1.f if consistent requirement on all dicamba tolerant products (Engenia, Xtendimax and Tavium)

2. Utilize the results from the survey described in paragraph 1 of this section to annually review, and modify as appropriate for the upcoming growing season, the following elements of Syngenta's resistance management plan:
   a. Efforts aimed at achieving adoption of BMP's;
   b. Responses to incidents of likely resistance and confirmed resistance; and
   c. The education program and effectiveness of information dissemination. At the initiative of either EPA or Syngenta, EPA and Syngenta shall consult about possible modifications of the education program.

3. Syngenta must annually report to EPA any changes to its resistance management plan made in response to survey results as provided in section D.1.below.

**D. Reporting Component:**

1. Submit annual reports to EPA by January 15 (beginning January 15, 2022) and final report with all then available information due September 30, 2025. Such reports shall include:
   a. Annual sales of Tavium Plus VaporGrip Technology by state

which shall be treated by EPA as confidential business information;

b. The first annual report shall include the current education program and associated materials, and subsequent annual reports shall include updates of any aspect of the education program and associated materials that have materially changed since submission of the previous annual report, along with results of the survey as described in section C of this document;
c. Summary of your efforts aimed at achieving implementation of BMP's by all growers and users;
d. Summary of your determinations as to whether each reported lack of herbicide efficacy was "likely resistance," your follow-up actions taken, and, if available, the ultimate outcome (e.g., evaluation of success of additional weed control measures) regarding each case of "likely resistance." In the annual report, Syngenta must list the cases of likely resistance by county andstate.
e. The results of the annual survey described in paragraph 1 under "Evaluation Component," above, including the extent to which growers are implementing herbicide resistance BMPs, and a summary of your annual review and possible modification – based on that survey – of the education program, , and response to reports of likely resistance, described in paragraph 2 under "Evaluation Component," above; and
f. Summary of the status of any laboratory and greenhouse testing conducted pursuant to section A.5 following up on incidents of likely resistance, performed in the previous year. Data pertaining to such testing must be included in the annual reports. Any confirmed resistance must be reported through appropriate, publicly available HRM channels, such as [ HYPERLINK "http://www.weedscience.org" ] or www.hracglobal.com.

g. Report how many training sessions Syngenta conducted, identifying the dates, locations, and numbers of individuals trained per session. If Syngenta supported or partnered with other entities to provide training, report the names of the entities and the number of training sessions conducted by each, identifying the dates, locations, and numbers of individuals trained per session.

Following your submission of the annual report, you shall meet with the EPA at EPA's request in order to evaluate and consider the information contained in the report.

**E. Best Management Practices (BMPs) Component:**

1. Best management practices (BMPs) must be identified in your education program. Growers and users must be advised of BMP's in product literature, educational materials and training. Syngenta's transmittal of the BMPs must also describe to growers the commitments in this section of this document. Such BMPs must direct growers and users to scout fields before application to ensure proper weed identification and after application to confirm herbicide effectiveness, and that growers and users should report any incidence of lack of efficacy of this product against a particular weed species to Syngenta or a Syngenta representative.

2. The following are the additional elements and information that must be included in these BMPs:
   a. Regarding crop selection and cultural practices:
      i. Understand the biology of the weeds present.
      ii. Use a diversified approach toward weed management focused on preventing weed seed production and reducing the number of weed seeds in the soil seed-bank.
      iii. Emphasize cultural practices that suppress weeds by using crop competitiveness.
      iv. Plant into weed free fields, keep fields as weed free as possible, and note areas where weeds were a problem in prior seasons.
      v. Incorporate additional weed control practices whenever possible, such as mechanical cultivation, biological management practices, crop rotation, and weed-free crop seeds, aspart of an integrated weed control program.
      vi. Do not allow weed escapes to produce seeds, roots or tubers.
      vii. Manage weed seed at harvest and post-harvest to prevent a buildup of the weed seed-bank.
      viii. Prevent field-to-field and within-field movement of weed seed or vegetative propagules.
      ix. Thoroughly clean plant residues from equipment before leaving fields.
      x. Prevent an influx of weeds into the field by managing field borders.
      xi. Fields must be scouted before application to ensure that herbicides and application rates will be appropriate for the weed species and weed sizes present.
      xii. Fields must be scouted after application to confirm herbicide effectiveness and to detect weed escapes.
      xiii. If resistance is suspected, treat weed escapes with an alternate mode of action or use non-chemical methods to remove escapes.

   b. Regarding herbicide selection:
      i. Use a broad spectrum soil applied herbicide with a mechanism of action that differs from this product as a foundation in a weed control program.
      ii. A broad spectrum weed control program should consider all of the weeds present in the field. Weeds should be identified through scouting and field history.
      iii. Difficult to control weeds may require sequential applications of herbicides with alternative mechanisms of action.
      iv. Fields with difficult to control weeds should be rotated to crops that allow the use of herbicides with alternative mechanisms of action.
      v. Apply full rates of this herbicide for the most difficult to control weed in the field. Applications should be made when weeds are at the correct size to minimize weed escapes.
      vi. Use of herbicides with differing modes of action is recommended to manage resistance.
      vii. Report any incidence of lack of efficacy of this product against a particular weed species to Syngenta or a Syngenta representative.

**Appendix E**

Testing of Tank Mix Volatility-Reduction Adjuvant (or Agent)/Buffering Adjuvant (or Agent)/pH Modifier Properties

Products proposed as volatility-reduction agent/buffering agent (pH modifier) may be added to the list of approved products on the [ HYPERLINK "http://www.TaviumTankMix.com" ]_website if found, based upon such testing, that the Test Mixture results in a humidome airborne dicamba concentration are comparable to or less than the established Testing Standard as defined below.

Testing Conditions

Humidome test using conditions based on ASTM STP1587*, such as those outlined below. Testing is not required to be performed to GLP standards, but are expected to be well documented and validated, with associated record retention for potential future reference.

Testing Standard: [Tavium Plus VaporGrip Technology] + Roundup PowerMAX + VaporGrip Xtra or Sentris (0.5 lb a.e./A + 1.125 lb a.e. glyphosate/A + XXX use rate)

Test Mixture: Tavium Plus VaporGrip Technology + Roundup PowerMAX + Buffering Agent
(0.5 lb a.e. dicamba/A + 1.125 lb a.e. glyphosate/A + XXX use rate)

Water carrier rate: 15 GPA

Normal plastic humidome as specified in ASTM STP1587

Treated substrate: soil/soil blend as specified in ASTM STP1587 with 12-22% moisture

Temperature: 35 ± 5° C

Relative humidity: 40 ± 5% RH

Sample collection duration: 24 hours

Air sampling rate: 1.5-3.0 L/min

Air sampling filter: any substrate validated to capture >95% of dicamba (*e.g.*, fiberglass mesh + cotton pad, cellulose + PUF, MCE)

Replications: 3 minimum

Analysis: A one-tail (upper-bound) t-test ($\alpha = 0.10$) performed for all test mixtures relative to testing standard.

Passing result: If the Test Mixture mean was not statistically greater than that of the Testing Standard, then the [volatility reduction adjuvant/buffering adjuvant] in the Test Mixture demonstrated the ability to reduce volatility equivalent to or better than that of [VaporGrip Xtra/Sentris].

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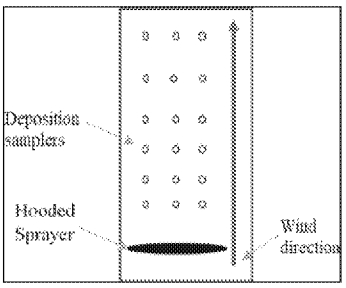
[*] Gavlick, W.K., D.R. Wright, A. MacInnes, J.W. Hemminghaus, J.K. Webb, V.I. Yermolenka, W. Su. 2016. A Method to Determine the Relative Volatility of Auxin Herbicide Formulations, Pesticide Formulation and Delivery Systems: 35th Volume, ASTM STP1587. pp. 24-32G. R. Goss, Ed. ASTM International, West Conshohocken, PA.

**Appendix F**

Protocol for Testing of Hooded Sprayers to Qualify for Reduced Downwind Spray Buffer Distances when Applying Tavium Plus VaporGrip Technology

Hooded sprayers, proposed for in-crop (over-the-top) dicamba applications may be added to the list of qualified hooded sprayers on [ HYPERLINK "http://www.TaviumTankMix.com" ] website if found, based upon such testing, that it reduces the spray drift of dicamba to a level that is equivalent to or less than that from the established baseline hooded sprayer as defined below.

Testing Conditions




Testing is to be conducted in an Ambient Breeze Tunnel (ABT) controlled environment wind tunnel using the conditions outlined below, with guidance from US EPA (2016)[1]. A section of a hooded sprayer must be placed in the tunnel with the boom length perpendicular to the wind direction. Absorbent pads must line the floor of the ABT to prevent droplet bounce. Dicamba deposition samples must be collected at pre-determined distances downwind from the sprayer. After a 2-minute clear-out period, samples must be retrieved from the farthest to the closest distances relative to the sprayer for subsequent residue analysis to quantify dicamba deposition. Testing conditions are established herein with the express purpose of producing and comparing drift deposition curves between a baseline and a proposed hooded sprayer and are therefore not intended to be representative of field conditions.

Testing is not required to be performed to GLP standards but is expected to be well-documented and validated, with associated record retention for potential future reference. Results of testing must include a certification indicating whether the study was performed pursuant to this protocol and any deviations from it, and a conclusion stating whether the product tested meets the Passing Result criterion specified below.

| | |
|---|---|
| Spray components: | Clarity® + Induce<br>(0.5 lb a.e./A + 0.25% v/v) |
| Baseline hooded sprayer: | RedBall® 642E |
| Hooded sprayer tested: | TBD |
| Boom Configuration: | Contain a minimum of 4 nozzles with spacing according to manufacturer's use directions; fixed position; length perpendicular to wind direction; rear curtain of hood 3 inches above a simulated crop and, at the same boom height, above bare ground |

[1] United States Environmental Protection Agency. 2016. Generic Verification Protocol for Testing Pesticide Application Spray Drift Reduction Technologies for Row and Field Crops

| | |
|---|---|
| Nozzle/pressure: | TT 11003 at 50 psi |
| Spray rate: | 15 GPA |
| Spray duration: | 30 seconds |
| Wind speed: | Minimum 10 mph |
| Temperature: | 10-35°C |
| Humidity: | 20-80% |
| Deposition samplers: | Filter paper on blocks 3-in above ground |
| Number of samplers: | Minimum 3 at each downwind distance |
| Sampler distances: | Minimum 6 downwind distances for analysis purposes; distances should follow a geometric distribution (*e.g.*, 2, 4, 8, 20, 30, 60, and 120 feet) and cover out to 120 feet but may vary based on study considerations. |
| Drift simulations: | Minimum 3 per hooded sprayer |
| Analytical analysis: | Conducted per latest version of analytical method ME-1871 or another validated method[ HYPERLINK \l "_bookmark0" ] |
| Analysis: | Appropriate non-linear and/or generalized linear models will be fit to the drift deposition measurements of each hooded sprayer evaluated. After an appropriate model is selected, deposition estimates will be made at 2, 4, 8, 20, 30, 60, and 120 feet for both the baseline and proposed hooded sprayer. The boom orientation (crop canopy or bare ground) that gives the highest overall deposition for the baseline sprayer will be used for analysis. Deposition for the baseline hooded sprayer must be determined for each day's test in the ABT. |
| Passing result: | If a comparison of the deposition values for the proposed hooded sprayer to the baseline hooded sprayer at 20 feet, using a one-tailed t- test (assuming equal variances, upper bound, alpha=0.10), is not statistically different, then the proposed hooded sprayer functions equivalent to the baseline hooded sprayer. |

[1] A study conducted with a validated analytical method other than ME-1871 must be accompanied with a report containing the environmental chemistry method, describing in full the analytical method that was used and validated, as well as an independent laboratory validation of the method.