EPA Registration Jacket 82542-3

Vol.2

Material to be added to an e-Jacket/Jacket

Reg. No. 82542-3 ~~82542~~ Decision # 449067

Description: accepted notification

1. Placement within the e-Jacket/jacket:

   ☒ Default: (chronological, top = newest)

   ☐ File Location: (eg. "before page 45 in .pdf")

2. ☐ Send to Data Extraction contractors this material:

   ☐ Newly stamped accepted label

   ☒ Notification

   ☐ New CSF

   ☐ Other: _____

3. Attach this coversheet to the top of the material or jacket. It must be well organized and clipped together, NOT STAPLED. Then give the material with this coversheet to staff in the Information Services Center (Room S-4900).

Reviewer: Maggie Rudick Division: RD

Phone: 307-347-0257 Date: 05/16/11

Created May 2, 2011

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

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

MAY 16 2011

Rufus Bastian
Source Dynamics, LLC.
10039 E. Troon North Drive
Scottsdale, AZ 85262

Subject: Notification per PR Notice 98-10 and 2007-4: Minor Label Changes
Paraquat Concentrate
EPA Reg. No. 82542-3
Application Dated: April 22, 2011

Dear Mr. Bastian:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 and 2007-4 for the subject product.

The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and 2007-4 and finds that the actions requested falls within the scope of this notice. The label submitted with the application has been date-stamped "Notification" and will be placed in our records.

If you have any questions regarding this letter, please feel free to contact Maggie Rudick at (703) 347-0257 or rudick.maggie@epa.gov.

Sincerely,

Kable Bo Davis, Product Manager 25
Herbicide Branch
Registration Division (7505P)

Restricted Use Pesticide

Due to acute toxicity. For retail sale to and use only by certified applicators or persons under their direct supervision and only for those uses covered by the certified applicator's certification.

PARAQUAT CONCENTRATE

Defoliant and desiccant herbicide for the control of weeds and grasses and as a harvest aid.

NEVER PUT INTO FOOD, DRINK OR OTHER CONTAINERS.
IF SWALLOWED, TAKE IMMEDIATE ACTION AS PRESCRIBED IN FIRST AID.
SYMPTOMS ARE PROLONGED AND PAINFUL.
DO NOT USE OR STORE IN OR AROUND THE HOME.
DO NOT REMOVE CONTENTS EXCEPT FOR IMMEDIATE USE.
THE ODOR OF THIS PRODUCT IS FROM THE STENCHING AGENT WHICH HAS BEEN ADDED, NOT FROM PARAQUAT.

Active Ingredient:

Paraquat dichloride (1,1'-dimethyl-4,4'-bipyridinium dichloride)	43.2%
Other Ingredients:	56.8%
Total:	100.0%

Contains 3.0 pounds paraquat cation per gallon as 4.14 pounds of dichloride salt per gallon.
Contains emetic and stench (odor).

KEEP OUT OF REACH OF CHILDREN

DANGER/PELIGRO

NOTIFICATION

MAY 16 2011

POISON

See First Aid on Page 2

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

solera

Manufactured for:
Source Dynamics, LLC
10039 E. Troon North Drive
Scottsdale, AZ 85262

EPA Reg. No.:	82542-3
EPA Est. No.	84662-CHN-001
Net Contents:	2.5 gal, 265 gal
LABEL REV.	PQT-05-R0210

Product of China

FIRST AID Contains Paraquat, a Bipyridinium Herbicide. Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
If swallowed	• Call a poison control center or doctor IMMEDIATELY for treatment advice. • SPEED IS ESSENTIAL. Immediate medical attention is required. If available, give an absorbent such as activated charcoal, bentonite or Fuller's Earth. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to by a poison control center or doctor. • Do not give anything by mouth to an unconscious person.
If inhaled	• Move person to fresh air. • The odor of this product is from the stenching agent, which has been added, not from the paraquat. • If person is not breathing, call 911 or an ambulance. • Call a poison control center or doctor for treatment advice.
If in eyes	• Hold eye open and rinse slowly and gently with water for 15-20 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 on skin or clothing	• 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.

NOTE TO PHYSICIAN: Administer either activated charcoal (100g for adults or 2g/kg body weight in children) or Fuller's Earth (15% solution; 1 liter for adults or 15ml/kg body weight in children). NOTE: The use of gastric lavage without administration of an absorbent has not shown any clinical benefit. Do not use supplemental oxygen. Eye splashes from concentrated material should be treated by an eye specialist after initial treatment. With the possibility of late onset corneal ulceration, it is advised that patients with paraquat eye injuries are reviewed by an eye specialist the day after first presentation. Use treatment that is appropriate for chemical burns. Intact skin is an effective barrier to paraquat; however, contact with irritated or cut skin or repeated contact with intact skin may result in poisoning.

HOT LINE NUMBERS:
SAFETY DATA AND INFORMATION 203-573-3303
TRANSPORTATION EMERGENCY (CHEMTREC) 800-424-9300

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER. May be fatal if swallowed. Fatal if inhaled. Corrosive. Causes irreversible eye damage. Wear protective eyewear. Do not breathe spray mist. Wear a dust mist respirator. Causes irreversible eye damage. Do not get in eyes or on clothing. Harmful if absorbed through skin. Avoid contact with skin. Prolonged or frequently repeated contact may cause allergic reactions in some individuals.

IMPORTANT: Inhalation is an unlikely route of exposure due to low vapor pressure and large spray droplet size, but mucosal irritation or nose bleeds may occur. Prolonged contact with this concentrated product can irritate your skin.

Personal Protective Equipment (PPE)

Applicators and other handlers (other than mixers and loaders) must wear:

Long-sleeved shirt and long pants; Chemical resistant gloves – Category A (e.g., barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinyl chloride (PVC) or viton); Shoes plus socks; Protective eyewear; NIOSH-approved particulate filtering respirator equipped with N, R or P class filter media. The respirator should have a NIOSH approval number prefix TC-84A. It is recommended that you require that respirator wearer to be fit tested, and trained in the use, maintenance and limitations of the respirator.

Mixers and loaders must wear:

Long-sleeved shirt and long pants
Chemical resistant gloves – Category A (e.g., barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinyl chloride (PVC) or viton)
Shoes plus socks
Chemical resistant apron
Face shield
NIOSH-approved particulate filtering respirator equipped with N, R or P class filter media. The respirator should have a NIOSH approval number prefix TC-84A. It is recommended that you require that respirator wearer to be fit tested, and trained in the use, maintenance and limitations of the respirator.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

Engineering **Controls:** When handlers use closed systems, enclosed cabs, or aircraft 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.

User Safety Recommendations

Users should:

Wash hands before eating, drinking, and 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.

ENVIRONMENTAL HAZARDS

This product is **toxic to wildlife**. 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 cleaning equipment or disposing of equipment wash waters.

Paraquat dichloride is **toxic to nontarget crops and plants** if off-target movement occurs because it desiccates all green plant tissue. Extreme care must be taken to ensure that off-target drift is minimized to the greatest extent possible. Refer to the local state laws, regulations, guidelines, and spray drift information contained in the Directions for Use section for proper application to avoid off-target movement. Do not apply under conditions involving possible drift to food, forage, or other plantings that might be damaged or the crops thereof rendered unfit for sale, use, or consumption. Do not apply when weather conditions favor drift from treated areas. To avoid drift, do not make aerial application during periods of thermal inversion.

PHYSICAL AND CHEMICAL HAZARDS

This product is **mildly corrosive to aluminum** and produces hydrogen gas which may form a highly combustible gas mixture. Do not mix or store in containers, spray tanks, nurse tanks, or such systems made of aluminum or having aluminum fittings. The product is compatible with high density polyethylene and rubber-lined steel containers.

DIRECTIONS FOR USE

Restricted Use Pesticide. It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

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. Do not use around home gardens, schools, recreational parks, golf courses or playgrounds.

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 interval. The requirements in this box only apply to use of this product that are covered by the Worker Protection Standard.

For preplant or preemergence (broadcast or banded), chemical fallow, postemergence directed spray applications, early postemergence broadcast in peanuts and dormant season applications, and "between cutting" applications in alfalfa: Do not enter or allow worker entry into treated areas during the **restricted-entry interval (REI) of 12 hours.**

For harvest aid and desiccation application: 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
Shoes plus socks
Protective eyewear
Chemical resistant gloves - Category A (e.g., barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinyl chloride (PVC) or viton).

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 others to enter the treated area until sprays have dried.

AVOID working in spray mist.

Keep all unprotected persons out of operating areas or vicinity where there may be danger of drift.

Certain states may require more restrictive reentry intervals; consult your State Department of Agriculture for further information.

USE INSTRUCTIONS AND INFORMATION

Do not apply this product through any type of irrigation system.

When PARAQUAT CONCENTRATE is applied at less than 10 gallons per acre finished spray volume, a drift control or spray deposition additive SHOULD be used. Refer to the additive label for rates of applications, directions for use, limitations, and restrictions.

SPRAY DRIFT INFORMATION

AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR. The interaction of many equipment- and weather-related factors determines the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following DRIFT MANAGEMENT REQUIREMENTS must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

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°. Where states have more stringent regulations, they shall be observed.

The applicator should be familiar with and take into account the information covered in the Aerial Drift Reduction Advisory Information.

Where states have more stringent regulations, they must be observed.

AERIAL DRIFT REDUCTION ADVISORY INFORMATION

Information on Droplet Size

The most effective way to reduce drift potential is to apply large droplets. The best management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environment conditions (see Wind, Temperature and Humidity, and Temperature Inversions).

Controlling Droplet Size

Volume - Use high flow rate nozzles to apply the highest spray volume. Nozzles with higher rated flows produce larger droplets.
Pressure - Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
Number of Nozzles - Use the minimum number of nozzles that provide uniform coverage.
Nozzle Orientation - Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.
Nozzle Type - Use a nozzle that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

Boom Length

For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.

Application Height

Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making application at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

Swath Adjustment

When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase with increasing drift potential (higher wind, smaller drops, etc.).

Wind

Drift potential is lowest between wind speeds of 2-10 mph. However, many factors, including droplet size and equipment type, determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. NOTE: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

Temperature and Humidity

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

Temperature Inversions

Applications can not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes 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 are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They 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 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.

Sensitive Areas

The pesticide can only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

USE INFORMATION

PARAQUAT CONCENTRATE is a liquid formulation containing 3 lbs. of active ingredient per gallon. It contains a nontoxic odor to help prevent accidental ingestions. It also contains an emetic (an agent which will induce vomiting if the product is swallowed).

APPLICATION

PARAQUAT CONCENTRATE is a contact herbicide for control or suppression of a broad spectrum of emerged weeds including most small annual broadleaf and grass weeds. It can also be used to suppress perennial weeds by destroying green foliage and as a desiccant/ defoliant at harvest.

Complete coverage of target weeds is necessary to get good control because PARAQUAT CONCENTRATE is a contact-type herbicide. It is also necessary to obtain complete coverage for good crop desiccation and defoliations. Undesirable weed control and undesirable crop desiccation/defoliation will result if improper application technique and/or application to large, stressed, or mown weeds are made. Refer to the following details for specific application instructions.

Thorough coverage of all green foliage is required for efficacious weed control and crop defoliation and desiccation because PARAQUAT CONCENTRATE requires actively growing green plant tissue to function. Drought-stressed weeds, weeds with little green foliage (i.e., mowed or cut weeds), or mature woody bark of trees and vines are unaffected by application with PARAQUAT CONCENTRATE.

There is no residual soil activity to affect later-planted crops or later germinating weeds because clay and organic matter rapidly tie up PARAQUAT CONCENTRATE.

ROTATIONAL CROPS

After the last application PARAQUAT CONCENTRATE, all rotational crops may be planted immediately.

RAINFASTNESS

Rain occurring 30 minutes or more after application will have no effect on the activity of PARAQUAT CONCENTRATE because it is rapidly absorbed by the weed foliage.

USE OF A NONIONIC SURFACTANT OR CROP OIL CONCENTRATE

The following should always be added and be used at the recommended rates or there will be a reduction in efficacy of PARAQUAT CONCENTRATE.

Nonionic Surfactant: Either add a nonionic surfactant cleared for the current use containing 50-74% surface-action agent at 0.25% v/v (2 pts./100 gals.), or add nonionic surfactant containing 75% or more surface-active agent at 0.125% v/v (1 pt./100 gals.), of the finished spray volume for ground applications. Add a nonionic surfactant at 0.25% v/v (2 pts./100 gals.) of the finished spray volume for aerial applications.

Crop Oil Concentrate: For ground applications, add a nonphytotoxic crop oil concentrate cleared for the current use that contains15-20% approved emulsifier, with 1.0% v/v (1 gal./100 gals.) of the finished spray volume. Add 1 pt. of crop oil concentrate per acre for aerial applications. **For cotton harvest aid, do not use** crop oil **concentrate when using PARAQUAT CONCENTRATE.**

NOZZLE SELECTION

The use of flat-fan nozzles is the most effective application of PARAQUAT CONCENTRATE. The use of flood nozzles may result in a reduction of weed control due to inadequate coverage because they produce large uneven droplets.

Use only flat fan nozzles when spraying less than 20 gallons of spray carrier per acre using the following table.

Recommended Nozzle Type and Spray Pressures and Setup

	Nozzle Type	
	Flat Fan	Flood
Maximum Size	8	15
Spray Pressure (at nozzle)	30-50 psi	30-50 psi
Maximum Nozzle Spacing	30"	40"
Direction of Spray Pattern	Down	Down
Maximum Speed	10 mph	10 mph
Spray Overlap (at each edge)	30%	50%

Reduced control will result if nozzles, pressures, or setups differ from the above chart.

SPRAY CARRIER

PARAQUAT CONCENTRATE may be inactivated by muddy water, or suspension-type fertilizers containing clay. Therefore, always use clean water (free of mud or clay), clear liquid nitrogen, or complete clear liquid fertilizers as the carrier when spraying this product. Never use suspension-type fertilizers containing clay as the spray carrier. Always use the higher rate of PARAQUAT CONCENTRATE and surfactant if using a complete clear liquid fertilizer containing high phosphate levels as the spray carrier.

Note: It is important that when using liquid fertilizers such as 28% N as a spray carrier, that nonionic surfactant still be used with PARAQUAT CONCENTRATE. The use of liquid fertilizer carriers are not substitutes for surfactants.

RATES OF PARAQUAT CONCENTRATE

With each use, follow rates listed in the following tables. When weeds are larger or are dense, use the higher label rates. For use as a harvest aid, use higher rate when crop vegetation is dense. Do not exceed 0.50 lbs. a.i./A in a minimum of 30 gallons of spray for broadcast applications with backpack sprayers.

SPRAY VOLUME

With each use, follow rates listed in the following tables. Spray volumes should be increased as necessary to obtain complete coverage of the target weed or plant without runoff from the foliage, because the volumes listed are **minimum volumes only.**

TARGET WEEDS SHOULD NOT EXCEEO SIX INCHES IN HEIGHT WHEN SPRAYING LESS THAN 20 GALLONS OF SPRAY CARRIER PER ACRE.

APPLICATION TIMING

Applications should be made to small emerged weeds. Larger weeds more than 6 inches in height may be more difficult to control than weeds 1-6 inches in height. If possible, when green foliage is removed either from grazing or mowing, allow the weeds to grow 2-4 inches in height. Also, during harvesting forage or grain crops before spraying, weeds present in the field are also cut. Therefore, raise cutter bars as high as possible from the ground to cut stubble and weeds at a greater height, allowing sufficient green foliage to remain for applications.

BURNDOWN OF GRASS COVER CROPS OR VOLUNTEER CEREALS

The best results occur for control of grass cover crops or volunteer cereals when PARAQUAT CONCENTRATE is applied prior to tillering or after boot stage, especially with a wheat cover crop or volunteer wheat. Complete control may not be achieved with treatments made between tillering and boot stage. Complete control of perennial cover crops should not be expected.

ENVIRONMENTAL CONDITIONS

This product is active over a wide range of environmental conditions such as cool (below 55°F), cloudy or overcast weather. However these conditions will slow the activity of PARAQUAT CONCENTRATE.

SPOT SPRAYING

Refer to the following table if only small areas are to be sprayed with labeled applications.

Mixing Instructions for Small Quantities for Spot Spraying

If the Broadcast Rate Per Acre for PARAQUAT CONCENTRATE is:	The Following Amount of PARAQUAT CONCENTRATE to 1 Gallon of Water
1 1/2 pts.	1/3 fl. oz
2 pts.	3/8 fl. oz.
2 1/2 pts.	1/2 fl oz.
3 pts.	2/3 fl. Oz.

Add 1/3 - 1/2 fl. oz. of a nonionic surfactant for each gallon of spray at all times. Thoroughly wet the foliage, but not to the point of runoff when spot spraying in this manner.

TANK MIXING: ENHANCED BURNDOWN OF DIFFICULT-TO-CONTROL WEEDS AND FOR RESIDUAL WEED CONTROL

Photosynthetic Inhibitor Herbicides

To control difficult weeds, tank mix PARAQUAT CONCENTRATE with other herbicides. The addition of other photosynthetic inhibitors (PSI) herbicides will slow the activity of PARAQUAT CONCENTRATE. This allows PARAQUAT CONCENTRATE to thoroughly distribute throughout a treated leaf, thus achieving better control than if PARAQUAT CONCENTRATE was applied alone.

PARAQUAT CONCENTRATE may be applied in tank mixture with the following PSI herbicides:

AAtrex® Herbicide

Atrazine Herbicide

Bicep Lite II

MAGNUM® Herbicide

Bicep MAGNUM® Herbicide

Canopy® Herbicide

Lariat® Herbicide

Lexone® Herbicide

Linex® Herbicide

Lorox® Herbicide

Lorox Plus™ Herbicide

Princep® Herbicide

Sencor® Herbicide

Always refer to the respective product label(s) for rates of applications, directions for use, limitations, and restrictions.

Improved Weed Control with PSI's

The addition of a PSI herbicide will help improve the control of difficult weeds listed below. Make a second application for best results.

Barnyardgrass
Broadleaf signalgrass
Cheatgrass
Cocklebur
Fall panicum
Giant ragweed
Knotweed
Kochia
Lambsquarters
Malva (cheeseweed)
Marestail
Morningglory
Pennsylvania smartweed
Perennial weeds (suppression only)
Prickly lettuce
Sedges
Tansymustard
Velvetleaf
Volunteer wheat

Improved Control of Perennial and Annual Broadleaf Weeds

Tank mixing with labeled 2,4-D ester (Low Volatile), 2,4-DB or Banvel® herbicide will help improve control when perennial broadleaf weeds such as Canada thistle, bindweed, dandelion, etc., or difficult to control annual broadleaf weeds such as giant ragweed or morningglory are present. Reduced grass control may be achieved when tank mixing the amine formulation of 2,4-D with PARAQUAT CONCENTRATE .

Order of Tank Mixing

It is advisable to tank mix PARAQUAT CONCENTRATE and other listed products as follows:

t. Fill spray tank 1/2 full with clean water or other approved carriers such as clear liquid fertilizer.
2. Begin tank agitation and continue throughout mixing and spraying.
3. Add dry formulations (WP, DF, etc.) to tank.
4. Add liquid formulations (SC, EC, L, etc.) to tank.
5. Add PARAQUAT CONCENTRATE to tank.
6. Add nonionic surfactant to tank.
7. Fill remainder of spray tank.

Always read other pesticide products labels for weeds controlled, rates of applications, directions for use, limitations, and restrictions.

It is advisable to perform a jar test to check physical compatibility when using different formulation of the herbicides listed on this label.

USE PRECAUTIONS AND RESTRICTIONS

EQUIPMENT

PARAQUAT CONCENTRATE is corrosive to aluminum. Thoroughly flush all aluminum spray equipment and aluminum aircraft structures that are exposed to spray solution or spray drift with water immediately after use.

The activity of PARAQUAT CONCENTRATE may be reduced in dry areas where dust stirred up by high winds or equipment tires can coat weed or plant leaves. Therefore, avoid applications in extremely dusty conditions.

LIMITATIONS AND PRECAUTIONS

- Unless otherwise indicated, PARAQUAT CONCENTRATE will severely injure or kill crop plants emerged at time of application if they come in contact with sprays.
- Do not pasture livestock in treated fields or feed treated foliage in cotton when this product is used as a cotton harvest aid.
- Do not use around home gardens, schools, recreational parks, or playgrounds.
- Do not apply to soils lacking clay minerals such as peat, muck, pure sand, artificial planting media for preplant and preemergence (to the crop) uses.
- To enable maximum weed and grass emergence prior to treatment, seedbeds and plantbeds should be formed as far ahead of planting and treatment as possible.
- Avoid disturbing soil when seeding or transplanting.
- Transplanted plants may become damage when they come in contact with plastic mulch used for preplant weed control and that has been treated with this product.To prevent damage to the crop, sufficient wash-off such as rainfall or sprinkler irrigation prior to planting may be needed.
- PARAQUAT CONCENTRATE will be ineffective in controlling or suppressing weeds and grasses that have emerged after application.

APPLICATION INSTRUCTIONS

Crop	Weeds	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
ALFALFA (California only) New seedlings		Broadcast	0.7-1.3 pts. See Table 2.	Ground: 10 gals. Air: 5 gals.	70	• Do not make more than one application per year. • Applications should be made during late winter or early spring. • Do not cut or harvest within 70 days after application. • Alfalfa foliage present at time of application will be burned. • Replanting may be needed due to the reduction of seedling stands. • Do not apply to seedling alfalfa grown for seed.
ALFALFA Preplant or Preemergence (No-till or conventional planting)		Broadcast or Banded Over Row	1.7-2.7 pts.	Ground: 10 gals. Air: 5 gals.		• Do not make more than 2 applications per year. • Apply prior to emergence of the crop. Avoid disturbing soil when seeding. • Crop plants emerged at time of application will be killed.
ALFALFA Dormant season Established plantings Region A - See table at end of Alfalfa section	Weeds, including bluegrass, chickweed, henbit, downy brome, ryegrass, cheatgrass, dogfennel, tansymustard, London rocket, sowthistle, rescue brome, wild oats, and other winter annuals; and suppression of perennial weeds.	Broadcast	1.3-2.0 pts.	Ground: 10 gals. Air: 5 gals.	42	• Do not make more than one application per year. • **Fall regrowth:** Do not apply if last fall cutting is greater than 6." • **Spring regrowth:** Do not apply if last cutting is greater than 2". • After the crop is dormant, apply to well-established stands that are at least 1-year old. • Yield of first cutting may be reduced because alfalfa foliage present at the time of application will be burned. • Do not cut or harvest within 42 days after application. • For improved and longer-lasting weed control, tank mix with metribuzin (Lexone or Sencor). Always refer to the metribuzin label for weeds controlled, rates of applications, directions for use, limitations, and restrictions.
ALFALFA Dormant season Tank Mix with Velpar® L-Herbicide **Region A - See table at end of Alfalfa section**	Weeds including chickweed, downy brome and tansymustard.	Broadcast	0.7-1.3 pts.	Ground: 10 gals. Air: 10 gals.	42	• Do not make more than 2 applications per year. • When weeds are less than 4 inches tall apply at 0.7 pt. rate PARAQUAT CONCENTRATE • Mix PARAQUAT CONCENTRATE with 1-2 qts. of Velpar L per acre. • Use lower rate of Velpar L on loamy sands or sandy loams. Always refer to the Velpar L label for weeds controlled, rates of applications, directions for use, limitations, and restrictions. • During the dormant season, make one application to established alfalfa stands. • Fall regrowth: Do not apply if last fall cutting is greater than 6." • Spring regrowth: Do not apply if last cutting is greater than 2". • Do not apply to alfalfa during the first season after seeding. • Temporary chlorosis may occur on alfalfa regrowth. • Increased chances of crop injury may occur if stress which may be caused in part by low fertility, disease, insects, winterkill, over cutting, drought or frost. • DO NOT USE on gravelly or rocky soils, exposed subsoils, hardpan, sand or poorly drained alkaline soils as crop injury, including mortality, may result. • Do not cut or harvest within 42 days of application.

Crop	Weeds	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
ALFALFA Dormant Season On established plantings: Region B: See table at end of Alfalfa section. On tall-seeded newly established stands less than 1-year-old: Region A - See table at end of Alfalfa section On fall-seeded newly established stands less than 1-year-old: Region B - See table at end of Alfalfa section	Weeds including London rocket, sowthistle, rescue brome, wild oats, chickweed, ryegrass, bluegrass, cheatgrass, dogfennel, tansymustard, henbit, downy brome, and other winter annuals; and suppression of perennial weeds **California:** Desiccation of weeds including bluegrass, ryegrass, shepherdspurse, chickweed, tansymustard, foxtail, sowthistle and groundsel.	Broadcast	0.7-1.3 pts.	Ground: 10 gals. Air: 5 gals.	60	• Do not make more than one application per year. • Applications should be made before first spring cutting and during late fall or winter months after the last fall cutting. • **California:** Do not apply if **spring regrowth** after grazing or cutting is more than 2 inches in Orange and Riverside counties, and all counties north of these counties. • All other **areas within Region B:** Do not apply if regrowth after grazing or cutting is more than 2 inches. • Do not harvest within 60 days of application. • Applications to alfalfa that is not dormant, or has broken dormancy, may result in stand and/or yield reductions. Replanting may be necessary. Green alfalfa foliage present at time of application will be burned. • If there is a severe weed infestation, total hay yield of first cutting may be reduced in alfalfa fields and the reduction is typically directly proportionate to the loss of weed weight. • For improved and residual weed control in **dormant established (at least 1-year-old) alfalfa,** tank mix with metribuzin (Lexone or Sencor). Do not apply tank mix with metribuzin on alfalfa that is less than 1-year-old. • Always refer to metribuzin label for weeds controlled, rates of applications, directions for use, limitations, and restrictions. **California** • If ryegrass, shepherdspurse, sowthistle or groundsel are present, use higher rate.
		Broadcast	0.7-1.3 pts.	Ground: 10 gals. Air: 5 gals.	60	
		Broadcast	0.5-0.8 pts.	Ground: 10 gals. Air: 5 gals.	60	

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
ALFALFA (East of the Rocky Mountains) Between-cuttings treatment in established plantings. (Includes first year alfalfa)	Broadcast	0.7 pt.	Ground: 10 gals.	30	• Do not make more than 3 applications per year. • Control of weeds beyond the seedling stage and weed stubble cut off during harvest are less affected by this treatment. • Make applications immedialely after alfalfa has been removed for hay or silage. • Do not treat more than 5 days after cutting. • A reduction in first year alfalfa stands and yeilds may occur it alfalfa is allowed to regrow more than 2 inches. • Burning of alfalfa foliage will occur at time of application. • Weed control may be reduced where moisture is limited such as in arid climates. • Do not cut or harvest within 30 days of application. • Apply as needed up to three times during the growing season in addition to a dormant application. • Do not make more than 2 applications during the first growing season of first-year alfalfa.
ALFALFA (For use only in the following states: ID, MT, NV, OR, UT, WA, WY) Desiccation of alfalfa to aid harvesting alfalfa seed	Broadcast	1.7-2.7 pts.	Ground: 20-25 gals. Air: 5-10 gals.	See Precautions	• Do not make more than 2 applications per year. • Do not harvest until at least 4 days after application. • Do not apply when weather conditions favor drift from treated areas. • Do not apply by ground equipment within 25 ft., or by air within 75 ft. of lakes; reservoirs; rivers; permanent streams; marshes or natural ponds; esluaries; and commercial fish farm ponds. • Use only on fields in production of alfalfa seed. Do not use on fields producing alfalfa for livestock feed. Do not use any portion of the treated field for human or animal feed, including seed, seed screenings, hay forage, or stubble • Do not cut current year's treated alfalfa seed crop for hay or forage. Do not graze current year's treated alfalfa seed crops. • Do not use treated alfalfa seed for sprouting. Tag all alfalfa seed treated with PARAQUAT CONCENTRATE/Reglone tank mix at processing plants with, "NOT FOR HUMAN CONSUMPTION". The grower is responsible for notifying the processing plants of any seed crop treated with PARAQUAT CONCENTRATE/Reglone tank mix. • Remove ALL PARAQUAT CONCENTRATE/Reglone treated alfalfa seed screenings from the market because all screening from alfalfa seed processing are prohibited from feed channels.
PARAQUAT CONCENTRATE/ Reglone Tank Mix	Broadcast	1.3-2.7 pts. PARAQUAT CONCENTRATE/ 2 pts. Reglone	Ground: 20-25 gals. Air: 5-10 gals.	See Precautions	

ALFALFA: New Seedlings - Suppression and control of broadleaf weeds and grasses in new alfalfa seedlings grown for hay (California only).		
	Rate/Acre*	
For Control of:	For Suppression	For Control
Annual Bluegrass	—	10.7-21.3 fl. oz.
Chickweed	—	10.7-21.3 fl. oz.
Fiddleneck (6 inches tall or less)	5.4-10.7 fl. oz.	21.3 fl. oz.
Red Maids (6 inches tall or less)	—	10.7-21.3 fl. oz.
Shepherdspurse	10.7-21.3 fl. oz.	—
Spikeweed (4 inches tall or less)	5.4 fl. oz.	10.7-16.0 fl. oz.
Volunteer Small Grain (8 inches tall or less)	5.4-10.7 fl. oz.	21.3 fl. oz.

- **Use the 5.4 fl. oz. rate only when alfalfa has at least 3 trifoliate leaves; use the 10.7 fl. oz. rate only when alfalfa has 6 trifoliate leaves; or use rates over 10.7 fl. oz. only when there are 9 trifoliate leaves.**

Alfalfa – Regions

REGION A
Alaska, California (counties of Del Norte, Siskiyou, Modoc, Shasta, Lassen, Plumas, Sierra and Nevada), Colorado, Connecticut, Delaware, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New York, North Dakota, Ohio, Oregon, Pennsylvania, Rhode Island, South Dakota, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming

REGION B
Alabama, Arizona, Arkansas, California (all other counties not listed in Region A), Florida, Georgia, Hawaii, Louisiana, Mississippi, New Mexico, North Carolina, Oklahoma, South Carolina, Tennessee, Texas

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
ALMONDS	Directed Spray	0.8-2.7 pts.	Ground: 10 gals.	—	• Do not make more than 5 applications per year. • Avoid allowing spray to contact green stems (except suckers) or foliage. • When spraying around young trees, use a shield or wrap plant. • Do not graze treated areas and do not feed cover crops grown in treated areas to livestock. • Do not apply when nuts to be harvested are on the ground. • Retreatment or spot treatments may be necessary for mature woody weeds, perennial weeds, late germinating weeds and green suckers.
ARTICHOKE (GLOBE)	Directed Spray	1.7-2.7 pts.	Ground: 20-100 gals.	1	• Do not make more than 3 applications per year. • Do not exceed 8 pts. per season. • Applications must be made at least 7 days apart. • Do not harvest within 24 hours of last application.
ASPARAGUS	Preplant or Preemergence Broadcast or Banded Over-Row	1.7-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Application should be made prior to emergence of the crop. • Emerged asparagus at time of application will be killed.
ASPARAGUS Preemergence to established plantings at least 2 years old.	Broadcast or Banded Over-Row	1.7-2.7 pts.	Ground: 10 gals.	6	• Do not make more than 3 applications per year. • Application should be made prior to emergence of the crop or after last harvest. • Emerged asparagus at time of application will be killed.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
BEANS, DRY **Not for use in California** Sweet lupin White sweet lupin White lupin Grain lupin Adzuki beans Asparagus beans Black beans Broad beans Field beans Garbanzo beans Kidney beans Lablab beans Moth beans Mung beans Navy beans Pinto beans Rice beans Tepary beans Urd beans Guar **PEAS, DRY** **Not for use in California** Blackeyed peas Chickpeas Cowpeas Crowder peas Southern peas Catjang	Harvest-Aid	0.8-1.3 pts.	Ground: 20 gals. Air: 5 gals.	7	• Do not make more than 2 applications per year. • Add nonionic spreader at 1 qt./100 gals.of spray mix. • Use a single application of the higher rate for vining type beans or bush type with lush growth. • May also be applied as a split application and may improve vine coverage. However do not make more than 2 applications per year or exceed a total of 1.3 pints per acre. • Apply when at least 80% of the pods are yellowing and mostly ripe and when leaves are no more than 40% of bush type peas or beans or 30% of vine type peas or beans are green . • Do not apply when weather conditions favor spray drift. To reduce drift, a drift control agent may be included. • Not registered for use in dry beans and dry peas in California.
BERRIES Blackberry, Blueberry, Boysenberry, Currant, Elderberry, Gooseberry, Huckleberry, Loganberry, Raspberry	Postemergence Directed Spray	1.3-2.7 pts.	Ground: 50 gals.	—	• Do not make more than 5 applications per year. • New canes or shoots can be injured. Therefore, apply before their emergence. • To prevent crop injury from spray mist, apply as a coarse spray.
CACAO	Directed Spray	1.3-2.7 pts.	Ground: 50-200 gals.	1	• Do not make more than 5 applications per year. • Apply when weeds are succulent and growth is from 1-6". • Retreatment or spot treatments may be necessary for mature woody weeds, late-germinating weeds and grasses and for perennials. • Use a shield for young trees to prevent sprays from contacting cacao plants, as injury may result. • Do not spray under windy conditions. • Do not graze treated areas or feed treated cover crops to livestock.
CASSAVAS, TANIERS & YAMS (Puerto Rico only)	Shielded Post Directed Spray	1.3 pts.	Ground: 50 gals.	90	• **Cassavas and Taniers:** Do not make more than 3 applications per year. • **Yams:** Do not make more than 2 applications per year. • Make applications when weeds are succulent and growth is 1-6". • Prevent spray from contacting crop to prevent injury to crop. • Do not spray under windy conditions. • Do not graze treated areas or feed treated forage to livestock.

Use Information for Chemical Fallow

- As the density of stubble, crop residue or weeds increases, use higher spray volumes for better coverage.
- To control volunteer wheat or downy brome, fall-applied treatments generally work best with PARAQUAT CONCENTRATE. If possible, tank mix with atrazine for maximum burndown and residual control.
- Apply from immediately after harvest up to emergence of the newly seeded crop as a broadcast or band treatment.
- Before applying PARAQUAT CONCENTRATE, cut wheat as high as possible to avoid cutting weeds too short, and allow the weeds to grow at least 2-3" after harvest.
- The addition of dicamba (Banvel) or 2,4-D ester (Low Volatile) may aid in the suppression of emerged perennial broadleaf weeds and large annual broadleat

weeds. Always refer to the product label(s) for 2,4-D ester (Low Volatile), Banvel, or residual herbicide for rates of applications, directions for use, limitations, and restrictions.

- It is permissible to tank mix with registered residual herbicide combinations other than listed for extended weed control during the fallow period
- Weeds and grasses emerging after application and weeds taller than 6 inches will not be controlled.
- Crop plants emerged at the time of application will be killed.
- The minimum total spray per acre allowed is 5 gallons for ground and 5 gallons for air applications.
- Apply 5-60 gallons spray mix per acre by ground application.

When applying at less than 10 GPA by ground:

Do not apply with floaters or exceed a speed of 10 mph.
Apply with flat fan nozzles at 30-40 psi.
Apply only in a tank mix with atrazine at a minimum of 0.5 lb. a.i./acre.
By air: apply in 5-10 gallons of spray mix per acre.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
CHEMICAL FALLOW Continuous Wheat (2-3 month recropping interval)	Broadcast	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2.0 pts. Weeds 6": 2-2.7 pts.	Ground: 5 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Apply at least 45 days before seeding. • For volunteer wheat or downy brome control in spring, use at least 1.3 pts. of PARAQUAT CONCENTRATE per acre with a Photosynthetic Inhibitor Herbicide. • Refer to the section "Use Information for Chemical Fallow".
CHEMICAL FALLOW Wheat-Fallow-Wheat Rotations (Fall applied after harvest; seeded 12-14 months later)	Broadcast	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2 pts. Weeds 6": 2-2.7 pts.	Ground: 5 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Spray before weeds produce seeds. • Control of volunteer wheat and downy brome control increases when applications are made late August or early September. • For improved burndown and residual control of weeds, tank mix with Atrazine, Marksman® Herbicide, or Command® Herbicide. • For improved burndown and residual control of grass and broadleaf weed tank mix with metribuzin (Sencor 75DF). • Always refer to the respective product label(s) for rates of applications, directions for use, limitations, and restrictions. • Refer to the section "Use Information for Chemical Fallow".
CHEMICAL FALLOW Wheat-Fallow-Wheat Rotations (Spring applied: seeded 3-5 months later)	Broadcast	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2 pts. Weeds 6": 2-2.7 pts.	Ground: 5 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • To conserve moisture, application should be made March 1 to April 15, prior to spring rains. • Even though moisture loss is greater when applications are made after the boot stage, volunteer wheat is easier to control after this stage. • For volunteer wheat or downy brome control in spring, use at least 1.3 pts. of PARAQUAT CONCENTRATE per acre with a Photosynthetic Inhibitor Herbicide. • Refer to the section "Use Information for Chemical Fallow". • For burn down and residual control of grass and broadleaf weeds, tank mix with metribuzin, (Sencor 75DF/Lexone). • Always refer to the label for metribuzin (Sencor 75DF/Lexone) for rates of applications, directions for use, limitations, and restrictions.
CHEMICAL FALLOW Wheat-Annual Crop[1]-Wheat Rotations (Fall applied in wheat stubble)	Broadcast	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2 pts. Weeds 6": 2-2.7 pts.	Ground: 5 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • For improved burndown and residual weed control, tank mix with Atrazine or Marksman. Always refer to the respective product label(s) for rates of applications, directions for use, limitations, and restrictions. • Make applications after wheat harvest and before weeds produce seed. • If grasses such as foxtails or barnyardgrass recover, respray before seed production. • Applications made late August to November help control volunteer wheat and downy brome. • Refer to the section "Use Information for Chemical Fallow".
CHEMICAL FALLOW Wheat-Annual Crop-Wheat Rotations (Spring applied prior to planting an annual crop[1])	Broadcast	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2 pts. Weeds 6": 2-2.7 pts.	Ground: 5 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • For enhanced burndown and residual weed control, tank mix with Atrazine. Always refer to the respective product label(s) for Atrazine for rates of applications, directions for use, limitations, and restrictions. • For volunteer wheat or downy brome control in spring, use at least 1.3 pts. of PARAQUAT CONCENTRATE per acre with a Photosynthetic Inhibitor Herbicide. • Refer to the section "Use Information for Chemical Fallow". • Refer to the Atrazine label for directions pertaining to soil pH and recropping intervals.

[1]Approved Annual Crops are grain sorghum, corn, wheat, or proso millet.

Crop	Weeds	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
CLOVER AND OTHER LEGUMES Including velvetbean, lespedeza, lupine, saintoin, fretoil, vetch, crown vetch, and milk vetch. **Dormant Season** On established plantings: Region A – See table at end of Alfalfa section.	For desiccation of weeds, including London rocket, sowthistle, rescue brome, wild oats, chickweed, ryegrass, bluegrass, cheatgrass, dogfennel, tansymustard, henbit, downy brome, and other winter annuals, and suppression of perennial weeds. **California** • Use for desiccation of weeds including bluegrass, ryegrass, shepherdspurse, chickweed, tansy mustard, foxtail, sowthistle and groundsel.	Broadcast	1.3-2.1 pts.	Ground: 10 gals. Air: 5 gals.	60	• Do not make more than 1 application per year. • Applications should be made during late fall or winter months after the last cutting and before first spring cutting. • Do not apply if regrowth after grazing or cutting is more than 2". • Do not harvest within 60 days of application. • CAUTION: Stand and/or yield reductions may occur when applications are made to clover or other legumes that are not dormant, or have broken dormancy. Therefore, it may be necessary to replant. Burning will occur to green clover or other legumes' foliage present at the time of application. • Discoloration and temporary stunting will occur in clover or other legumes foliage present at the time of application. • If there is severe weed infestation, the total hay yield of first cutting may be reduced in clover or other legumes fields and is usually directly roportionate to the loss of weed weight.
On established plantings: Region B - See table at end of Alfalfa section.		Broadcast	0.7-1.3pts.	Ground: 10 gals. Air: 5 gals.	60	**In California:** • If ryegrass, shepherdspurse, sowthistle or groundsel are present, use higher rate.
On fall-seeded, newly established stands less than 1-year-old: Region A - See table at end of Alfalfa section.		Broadcast	0.7-1.3pts.	Ground: 10 gals. Air: 5 gals.	60	
On fall-seeded, newly established stands less than 1-year-old: Region B - See table at end of Alfalfa section.		Broadcast	0.5-0.8 pts.	Ground: 10 gals. Air: 5 gals.	60	

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
CORN FIELD CORN POPCORN SWEET CORN SEED CORN (Used alone)	Preplant or Preemergence Broadcast or Banded Over Row	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2 pts. Weeds 6": 2-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Includes field, fresh sweet, forage, fodder and popcorn. • To permit maximum weed and grass emergence, seedbeds should be formed as far ahead of planting and treatment as possible. • Seeding should be done with a minimum amount of soil disturbance. • Control will not occur when applications are made after weeds and grasses have emerged. However, crop plants emerged at time of application will be killed.
CORN Tank mixes for no-till/ reduced till	Preplant or Preemergence Broadcast or Banded Over Row	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2 pts. Weeds 6": 2-2.7 pts.	Ground: 10 gals. Air: 5 gals.*	—	• Do not make more than 3 applications per year. • Applications should be made as broadcast sprays before, during or after planting, but before crop emergence. • PARAQUAT CONCENTRATE may be tank mixed with the following herbicides for improved burndown or residual control: 2,4-D Ester (Low Volatile) Hamess® Hamess® Xtra AAtrex®/Atrazine Lasso® Herbicide Banvel® Linex® Bicep MAGNUM® Lorox® Bicep Lite II MAGNUM® Princep® Dual MAGNUM Prowl® Herbicide Frontier® Simazine® Guardsman® Surpass® EC Harmony® Extra Herbicide Surpass® 100 (Preplant only) Topnotch® • PARAQUAT CONCENTRATE may also be tank mixed with Ambush® insecticide. • Always refer to respective product label(s) for rates of applications, directions for use, limitations, and restrictions. * Always refer to respective product label(s) to confirm if these products can be applied by air.
FIELD CORN, POPCORN, SWEET CORN, SEED CORN	Postemergence Directed Spray (including Hooded or Shielded)	0.7-1.3 pts.	Ground: 10 gals.	—	• Do not make more than 3 applications per year. • Applications should be made when weeds are actively growing. • Use a higher rate on larger or hard to control weeds. Weeds 6" or taller may not be controlled. • Severe damage and/or complete kill can occur if spray contacts corn plants **For Hooded Or Shielded Sprayers:** • Use a hooded or shielded sprayer with skids or wheels on the spray boom to maintain spray height in order to prevent excessive crop phytotoxicity. • Apply by directing spray between the rows and using hooded or shielded sprayers to prevent spray contact with crop plants. **For Directed Spray Without Hooded Or Shielded Sprayers:** Corn height is measure from soil surface to top of whorl. • Apply when corn is at least 10" tall with nozzles arranged to spray no higher than the lower 3" of corn stalks. • Corn plants shorter than 10" may be injured and not recover. • For corn more than 20" tall: Arrange the nozzles to spray no higher than the lower 1/3 of the corn stalks. • Injury to corn foliage will occur if sprayed. However, corn will recover and develop normally.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
FIELD CORN, POPCORN, SEED CORN	Harvest Aid Broadcast	0.8-1.3 pts.	Ground: 20 gals. Air: 5 gals.	7	• Do not make more than one application per year. Make ONE (1) application at least 7 days prior to harvest. • Apply after the corn is mature. This is indicated by a black layer which forms at the base of the kernels. You may consult your local agricultural authority for help in identifying the black layer. • Add nonionic surfactant containing at least 75% surface active ingredient at 0.25% v/v. • To desiccate mature broadleaf weeds and grasses or broadleaf weeds and grasses that are taller than 18", use 1.3 pts. • Drought stressed plants, especially broadleaf weeds, can be difficult to kill, and desiccation may not be complete.
FIELD CORN ONLY (grain, fodder, forage)	Postemergence Directed Spray USDA Witchweed Eradication Program	1.3 pts.	Ground: 10 gals.	—	• Do not make more than 3 applications per year. • If regrowth occurs, initiate sprays in late June to early July and repeat in early August. • Follow application instructions in post-emergence directed spray section above.
FIELD CORN ONLY (grain, fodder, forage) 2,4-D Amine AE Tank Mix	Postemergence Directed Spray USDA Witchweed Eradication Program	5.4 fl. oz. +0.5 lb. 2,4-D Amine AE	Ground: 10 gals.	—	• Do not make more than 3 applications per year. • Apply as directed spray onto grassy weeds and witchweed before witchweed blooms. If regrowth occurs, reapply. • Follow application instructions in post-emergence directed spray section above. • Always refer to respective product label(s) for rates of applications, directions for use, limitations, and restrictions.
COTTON (Use Directions for All Cotton Uses)		All Cotton Uses			Do not exceed 8 pints of this product (3 lbs. a.i.) per acre per season for all uses on Cotton.
COTTON (Used alone)	Preplant or Preemergence	1.7-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	Do not ma - Do not make more than 3 applications per year. Apply prior to, during or after planting, but before crop emergence. For fallow bed treatment, beds should be preformed to permit maximum weed and grass emergence prior to treatment. Seeding should be done with a minimum of soil disturbance.
COTTON (California only; Used alone)	Preplant	5.4-10.7 fl. oz.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • For control of volunteer barley in preformed seedbeds.
COTTON Goal® Herbicide Tank Mix	Preplant or Fallow Bed Broadcast	1.7-2.7 pts.	Ground: or Air: 10 gals.	—	• Do not make more than 3 applications per year. • Always refer to the Goal label for weeds controlled, rates of applications, and directions for use, limitations, and restrictions.
COTTON Other Tank Mixes	Preplant or Preemergence	1.7-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Apply as a broadcast spray before, during or after planting, but before crop emergence. • For improved residual control or burndown, PARAQUAT CONCENTRATE may be tank mixed with the following herbicides: o Caparol® Herbicide o Cotoran® Herbicide o Cotton-Pro® Herbicide o Diurone® o Dual MAGNUM® o Harmony Extra (Preplant Only) o Meturon® Herbicide o MSMA o Prowl® o Zorial® Herbicide • When tank mixing with Cotoran DF® or Meturon DF®, follow mixing instructions carefully, maintain constant agitation, and see Order of Tank Mixing section in respective labels. • When tank mixing with any of the herbicides listed above, always refer to respective product label(s) for weeds controlled, rates of applications, directions for use, limitations, and restrictions.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
COTTON	Postemergence Directed Spray (Hooded or Shielded)	0.8 to 1.3 pts.	10 gals.	-	• Maximum number of applications per year is 3. • Apply when weeds are actively growing and between 1- 6" in height. • If multiple applications are made, allow 14 days between applications. • Use higher rate on dense populations and/or larger or hard to control weeds. Weeds 6" or taller may not be controlled. • AVOID CONTACT WITH CROP. Intentional or accidental contact, including, drift, of this product with the crop may result in severe damage or loss of the crop. • Apply by directing spray between the rows using hooded or shielded sprayers to prevent contact with the crop plant. • Equipment should be in good operating condition. Avoid leakage or dripping onto crop. Variation in equipment design may affect the level of weed control. • Keep hoods or shields adjusted to insure adequate contact with weeds while shielding the crop from the herbicide. • To minimize drift, do not use nozzles or nozzle configurations or adjuvants which produce fine spray droplets (mist). • This product may be tank mixed with other postemergence directed herbicides. Unless otherwise directed on this label, refer to tank mix product labels for rates, directions, limitations and precautions.

COTTON Harvest Aid Use Restrictions

- Do not make more than 4 applications per year.
- Do not pasture livestock in treated fields or feed treated foliage.
- Do not apply to cotton within 3 days before harvest.
- Repeat application if necessary. Do not exceed a total of 1.3 pts./A as a harvest aid.
- May be tank mixed with other cotton harvest aid materials known to be effective by a local expert. Unless otherwise instructed in this label, always refer to the respective product label(s) for rates of applications, directions for use, limitations, and restrictions.

• PARAQUAT CONCENTRATE can be applied in a tank mix with methyl parathion and/or Karate® insecticide. Always refer to the respective product label(s) for rates of applications, directions for use, limitations, and restrictions.
Nodes above cracked bolls (NACB) timing is for guidance and is not intended to restrict the local expert in their use of the product.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
SOUTHERN COTTON Harvest aid for boll opening and defoliation (Tank mix with phosphate and chlorate defoliants).	Broadcast	5.4 fl. oz. + 1 pt. phosphate or 1 gal. chlorate	Ground: 10 gals. Air: 5 gals.	7	• Do not make more than 4 applications per year. • Development of immature bolls will be inhibited. • Apply when 80% or more of the bolls are open and the remaining bolls to be harvested are mature. • Always refer to tank mix product label(s) for rates of applications, directions for use, limitations, and restrictions.
SOUTHERN COTTON Additional tank mixes for boll opening and defoliation	Broadcast	2.1-3.3 fl. oz.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 4 applications per year. • PARAQUAT CONCENTRATE may be tank mixed with the following products to aid in defoliation and opening of mature bolls. Accelerate® Defoliant Def® Defoliant Dropp® Defoliant Ethephon Plant Growth Regulator Folex® Defoliant Harvade® Harvest Growth Regulator Prep™ PGR • Apply when 60% or more of the bolls are open and the remaining bolls to be harvested are mature. • Development of immature bolls will be inhibited. • Always refer to tank mix product label(s) for rates of applications, directions for use, limitations, and restrictions.
SOUTHERN COTTON Post Defoliation - To aid in opening of mature bolls and to desiccate green weeds.	Broadcast	0.7-1.3 pts.	Ground: 10 gals. Air: 5 gals.	3	• Do not make more than 4 applications per year. • If weed infestation is heavy or dense, use higher rate. • Apply when 75% or more of bolls are open and remaining bolls to be harvested are mature. • Development of immature bolls will be inhibited. • After a defoliation or conditioning application has been made, delay desiccation application of PARAQUAT CONCENTRATE approximately 3-7 days to minimize leaf sticking.
WESTERN COTTON Harvest aid for boll opening and early defoliation	Broadcast	3.7-5.4 fl. oz. + phosphate or sodium chlorate; and/or other compatible harvest aid products.	Ground: 10 gals. Air: 5 gals.	7	• Do not make more than 4 applications per year. • On rank cotton, use higher rate. • Do not use more than 5.4 fl. oz of PARAQUAT CONCENTRATE for early defoliation as excessive desiccation may occur. • Early defoliation timing is when 60% or more of the bolls are open and the remaining bolls to be harvested are mature (approximately 4 NACB). • Development of immature bolls will be inhibited. • Do not use more than 4.0 lbs. of actual sodium chlorate defoliant per acre at this early defoliation timing. • Always refer to tank mix product label(s) for rates of applications, directions for use, limitations, and restrictions.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
WESTERN COTTON Harvest aid for boll opening and mid-to-late defoliation	Broadcast	5.4-10.7 fl. oz. alone or tank mix with sodium chlorate or phosphate defoliation and/ or other compatible harvest aid products.		3 (Alone)	• Do not make more than 4 applications per year. • Use the 10.7 fl. oz. rate of PARAQUAT CONCENTRATE in desert cotton areas or on rank vigorous cotton. • Mid-to-late defoliation timing is when 75% or more of the bolls are open and remaining bolls to be harvested are mature (approximately 3 or fewer NACB). • Development of immature bolls will be inhibited. • Always refer to tank mix product label(s) for rates of applications, directions for use, limitations, and restrictions.
COTTON Stripper or Spindle Harvested Harvest aid for defoliation and boll opening.	Broadcast	2.1-7.5 fl. oz.	Ground: 10 gals. Air: 5 gals.	3	• Do not make more than 4 applications per year. • BECAUSE OF EXTREMES IN ENVIRONMENTAL AND PLANT CONDITIONS, IT IS ADVISABLE TO APPLY THE RANGE OF RATES ON A SMALL BLOCK OF COTTON TO DETERMINE THE RATE THAT BEST FITS YOUR NEEDS. • Apply when 75% of the bolls are open and the remaining bolls to be harvested are mature. • DEVELOPMENT OF IMMATURE BOLLS WILL BE INHIBITED, SLICE BOLLS AND INSPECT THE SEED FOR MATURITY. • PARAQUAT CONCENTRATE may be applied alone or tank mixed with the following cotton harvest aids: Accelerate Defoliant® Def Defoliant® Dropp Defoliant® Ethephone Plant Growth Regulator Folex Defoliant® Harvade® Harvest Growth Regulator Prep™ PGR • May be applied as a split application. Do not exceed a total of 1.3 pts./A. • To avoid leaf sticking, apply PARAQUAT CONCENTRATE as a desiccant approximately 3-7 days after defoliant or a conditioning application and 7-14 days before harvest. • Cooler temperatures may cause a longer waiting period between application of PARAQUAT CONCENTRATE as a desiccant and defoliation/ conditioner. • South of Interstate-10 in Texas, where temperatures are typically higher during defoliation, lower rates in the range may be necessary. • Always refer to tank mix product label(s) for rates of applications, directions for use, limitations, and restrictions.
COTTON Late season desiccation	Broadcast	0.7-1.3 pts.	Ground: 10 gals. Air: 5 gals.	3	• Do not make more than 4 applications per year. • BECAUSE OF EXTREMES IN ENVIRONMENTAL AND PLANT CONDITIONS, IT IS ADVISABLE TO APPLY THE RANGE OF RATES ON A SMALL BLOCK TO DETERMINE THE RATE THAT BEST FITS YOUR NEEDS. • May be applied as a split application. Do not exceed a total of 1.3 pts./A. • Apply when 85% of the bolls are open and the remaining bolls to be harvested are mature (approximately 0 NACB). • Development of immature bolls will be inhibited. Slice bolls and inspect the seed for maturity. • South of Interstate-10 in Texas, where temperatures are typically higher during defoliation, lower rates in the range may be necessary. • Delay desiccation application of PARAQUAT CONCENTRATE approximately 3-7 days to minimize leaf sticking if a defoliation or conditioning application has been made. • May be tank mixed with other harvest aid materials known to the local expert to be effective.
COTTON Desiccation of regrowth	Broadcast	0.75-1.25 pts.	Ground: 10 gals. Air: 5 gals.	3	• Do not make more than 4 applications per year. • Use to desiccate regrowth occuring after defoliation or desiccation. • Because regrowth is difficult to control, thorough coverage with the full listed rate is necessary. • Control is dependent on growing conditions and desiccation of small new regrowth may not always be complete. • If regrowth is excessive, use higher rate.
EASTER LILIES (Field grown)	Preemergence	1.7-2.7 pts.	Ground: 10 gals.	---	• Do not exceed two applications per year.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
FALLOW LAND Prior to planting of any crops.	Preplant Broadcast to Fallow Land	1.0-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 2 applications per year, during the fallow period. • Fallow land may be between operations such as disking, ripping, plowing, leveling, irrigating or listing for ground preparation purposes. • Use for the control of weeds such as bluegrass, chickweed, henbit, downy brome, ryegrass, cheatgrass, dog fennel, tansy mustard, London rocket, sowthistle, rescue brome, wild oats, volunteer cereals and other winter annuals and for suppression of perennial weeds or sedges. • For weeds approaching the maximum size of 6", the higher rate may be used. • No more than 2 applications should be made during the fallow period. • Prior to application allow maximum weed emergence to maximize the benefit of this use. • Adhere to the preharvest intervals and other crop specific restrictions for planted crops elsewhere on this label.
GRASSES (For seed) (For use in seedbed preparation)	Preplant, at Planting, or Preemergence	1.3-2.7 pts.	Ground: 10 gals.	—	• Do not make more than 3 applications per year. • Prepare the seedbeds and allow weeds to germinate. • Apply PARAQUAT CONCENTRATE when weeds are at the 3-5 leaf stage. • Applications may be repeated as necessary (but only up to 3 applications per year) prior to grass emergence. • Do not graze treated areas or use the seed or straw from treated areas for animal feed or bedding.
GUAR (Preharvest desiccation)	Preharvest	1.3 pts.	Ground: 10 gals.	4	• Do not make more than 3 applications per year. • Apply after the pods are fully mature. • Do not graze treated areas or use the treated forage for animal feed.
GUAVA	Directed Spray	2.5 pts.	Ground: 10 gals.	—	• Do not make more than 4 applications per year. • Do not allow spray to contact green stems, fruit or foliage. • Do not graze treated areas. • Do not feed cover crops grown in treated areas to livestock. • Retreatment or spot spraying may be necessary for mature woody weeds, late-germinating weeds and grasses, and perennials.
HOPS (ID, OR, & WA only)	Directed Spray and/ or Suckering and Stripping.	1.3 pts.	Ground: 10 gals.	14	• Do not make more than 3 applications per year. • Retreatment or spot treatment may be necessary. • Do not allow spray to contact green stems, foliage, flowers, or cones as injury may result. • Do not allow animals to graze in treated hopyards. • Silage and hop vine refuse may be fed to livestock. • Spray only the basal 2 ft. of the vines for sucking and stripping. Repeat as necessary, but only up to 3 applications per season. • Experience with varieties other than Cascade, Yakima Cluster, and Bullion is limited. If using PARAQUAT CONCENTRATE on other varieties than these, test the use pattern on a small number of vines of each variety to determine sensitivity to injury. Do not use on unlisted varieties if unacceptable crop injury occurs. • Chemical Pruning: Spray when vines are less than 3 ft. tall to burn back existing vines and obtain even emergence of subsequent vines. • APPLICATION TO HOP VINES LESS THAN 6 FT. TALL MAY CAUSE UNACCEPTABLE INJURY.
LENTILS NOT REGISTERED FOR USE ON LENTILS IN CALIFORNIA.	Harvest Aid	0.8-1.3 pts.	Ground: 20 gals. Air: 7 gals.	7	• Do not make more than 2 applications per year. • Add nonionic surfactant at 0.25% v/v (2 pts./100 gals.) of the finished spray volume. • May also be applied as a split application. DO NOT make more than 2 applications or exceed a total of 1.3 pts./A. The split application may improve coverage. • Apply when crop is mature and at least 80% of the pods are yellowing and mostly ripe with no more than 30% of the leaves still green in color. • DO NOT apply when weather conditions favor spray drift. To reduce spray drift a drift control agent may be included.

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MINT (Peppermint, Spearmint)	Dormant Season	1.3-2.0 pts.	Ground: 10 gals. Air 5 gals.	-	• Do not make more than 2 applications per year. • For suppression of weeds such as groundsel, chickweed, downy brome, bluegrass, Italian ryegrass, prickly lettuce. • Apply when crop is dormant before spring growth begins and when weeds are less than 6" tall. • Do not apply more than 2.0 pts./A per dormant season. • May be tank mixed with Sinbar® Herbicide (terbacil) weed killer for improved contact activity and residual control of Italian ryegrass, prickly lettuce and groundsel. Apply this tank mixture no more than once per season. Always refer to Sinbar (terbacil) label for weeds controlled, rates of applications, directions for use, limitations, and restrictions.
ONIONS (seeded) AND GARLIC	Preplant/ Preemergence	1.7-2.7 pts.	Ground: 10 gals.	60 200 (CA only)	• Do not make more than 1 application per year. • For heavy weed infestations or wild oat control use the higher rate. Apply only one application per season at the 2.7 pts./A dosage. • Allow maximum weed and grass emergence prior to treatment but apply prior to crop emergence. • Apply a maximum of 2.7 pts./A per season.
PASSION FRUIT	Directed Spray	2.5 pts.	Ground: 10 gals.		• Do not make more than 5 applications per year. • If bark is still green at application time, use a shield or wrap vine. • Pick all fruit off the ground prior to application if application is to be made during harvest season. • Do not allow animals to graze on treated areas. • It may be necessary to retreat or spot treat.
PEANUTS	Broadcast At Ground Crack Postemergence	5.4-10.8 ft. oz.	Ground: 10 gals.		• Do not make more than 2 applications per year. • To control or suppress small (1-6") emerged annual grass and broadleaf weeds in peanuts at ground crack. A second application may be made up to 28 days after ground crack. • For at ground crack use, PARAQUAT CONCENTRATE can be tank mixed with Pursuit® Herbicide or Dual MAGNUM for residual weed control. • Always refer to the Pursuit or Dual Magnum label for a list of weeds controlled, application rates, necessary precautions, and use limitations. • Make no more than 2 applications per season and do not apply a total of more than 10.8 fl. oz. of product per acre per season. • Crop foliage sprayed will be injured in the form of bronzing and crinkling, but the crop will recover and develop normally. • Do not apply by air.
PEANUTS Basagran® Herbicide Tank Mix	Broadcast At Ground Crack Postemergence	5.4-10.8 ft. oz.	Ground: 10 gals.	—	• Do not make more than 2 applications per year. • Tank mix PARAQUAT CONCENTRATE with Basagran at 1 pt./A. for improved control of weeds such as cocklebur, bristly starbur, smartweed and prickly sida. • This tank mix can be applied at the ground crack stage of peanuts. A second application may be made up to 28 days after ground crack. • Make no more than 2 applications per season and do not apply a total of more than 10.8 fl. oz. of product per acre per season. • Crop foliage sprayed will be injured in the form of bronzing and crinkling, but the crop will recover and develop normally. • Always refer to the Basagran label for weeds controlled, rates of applications, directions for use, limitations, and restrictions. • If peanuts show injury (leaf phytotoxicity and/or plant stunting) produced by any other herbicide treatment, do not apply this tank mix as injury may be enhanced and/or prolonged. • During prolonged periods of drought or unseasonably cold weather do not apply this tank mix as unsatisfactory weed control may result. • Do not apply by air.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
PEANUTS Butyrac® Herbicide or Butoxone® 200 Herbicide Tank Mix	Broadcast Postemergence	5.4-10.8 fl. oz.	Ground: 10 gals.	—	• Do not make more than 2 applications per year. • For improved control of weeds such as cocklebur, sicklepod and morningglory, tank mix PARAQUAT CONCENTRATE with 8-16 oz. (0.125-0.25 lbs.) per acre of Butyrac or Butoxone 200. • Do not apply a total of more than 10.8 fl. oz. of product per season and make no more than 2 applications per season • Crop foliage sprayed will be injured in the form of bronzing and crinkling but the crop will recover and develop normally. • Always refer to the Butyrac or Butoxone 200 labels for weeds controlled, rates of applications, directions for use, limitations, and restrictions. • Do not apply by air.
PIGEON PEAS (Puerto Rico only)	Directed Spray	1.3 pts.	Ground: 10 gals.	60	• Do not make more than 1 application per year. • Avoid contact with pigeon pea foliage. • Do not make more than 1 application per season. • Do not graze treated areas or feed treated forage to livestock. • Cannery waste can be fed to livestock.
PINEAPPLE	Directed Spray	1.3-2.7 pts.	Ground: 10 gals.	20	• Do not exceed 3 applications per season. • More mature weeds may require retreatment.
POTATO	Preplant or Preemergence Broadcast	0.7-1.3 pts.	Ground: 10 gals. Air: 5 gals.		• Do not make more than 3 applications per year. • Apply up to ground cracking stage, before potatoes have emerged.
POTATO (California, Washington, Oregon, Idaho only; used alone)	Preplant Broadcast	0.4-0.7 pts.	Ground: 10 gals. Air: 5 gals.		• Do not make more than 3 applications per year. • For control of volunteer barley in preformed seedbeds.
POTATO Fresh Market Only Preharvest vine killing and weed desiccation. For Use Only In the states of: Colorado, Delaware, Idaho, Illinois, Indiana, Kansas, Maine, Maryland, Massachusetts, Michigan, Minnesota, Nebraska, Nevada, New Jersey, New York, North Dakota, Ohio, Oregon, Pennsylvania, South Dakota, Utah, Washington, Wisconsin and Wyoming	Broadcast	0.7-1.3 pts.	Ground: 20 gals.	3	For **Fresh Market Potatoes Only.** (Fresh Market Potatoes include potatoes that are sent directly from the field to a consumer, grocery store, or processor for use.) • **DO NOT** make more than 2 applications per year. • **DO NOT** use on potatoes that will be stored as tuber decomposition may result. • Potatoes must be harvested promptly after desiccation and processed or consumed immediately. • **DO NOT** apply to drought stressed potato vines. • **DO NOT** use to desiccate the vines of seed potatoes as seed pieces may fail to germinate and grow normally. • **DO NOT** pasture livestock in treated potato fields. • **DO NOT** exceed 2.6 pts./A per season. • Begin application when leaves begin to turn yellow. • Immature potato foliage is tolerant to PARAQUAT CONCENTRATE. However, desiccation will not be complete under this condition. • Use 1.3 pts./A rate where quick vine kill is desired. • For dense vine growth, use 2 applications of 0.6 pt/ A. Split applications must be applied a minimum of five days apart.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
RICE	Preplant or Preemergence Broadcast	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2.0 pts. Weeds 6": 2-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Apply as a broadcast spray before, during or after planting, but before crop emergence. When vegetation is dense, use higher rates and spray volumes. • Seeding should be done with a minimum amount of soil disturbance. • This product will not control weeds and grasses emerging after application. Crop plants emerged at time of application will be killed. • PARAQUAT CONCENTRATE may be tank mixed with other herbicides registered for this use for improved or extended weed control. Always refer to the tank mix product label(s) for weeds controlled, rates of applications, directions for use, limitations, and restrictions. • Do not flood/flush within 48 hours of application in order to ensure complete kill of vegetation. If cool, cloudy and/or wet weather delays speed of kill, do not flood/flush until complete kill is evident.
SAFFLOWER	Preplant or Preemergence Broadcast or Banded Over Row	1.7-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Apply before, during and after planting but before crop emergence.
SAFFLOWER (California only)	Preplant Broadcast	0.7 pt.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • For control of volunteer barley in preformed seedbeds.
SMALL GRAINS (Barley, wheat)	Preplant or Preemergence	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2 pts. Weeds 6": 2-2.7 pts.	Ground: 5 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year.
SMALL GRAINS (Wheat Only) Hoelon® 3EC Tank Mix	Preplant or Preemergence	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2 pts. Weeds 6": 2-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • A tank mix with Hoelon 3EC will improve grass control. • Apply when weeds are actively growing and 1-6" in height. Weeds 6 inches or taller may not be controlled. • Do not apply this tank mix to barley as crop injury may result. • Always refer to the Hoelon 3EC label for weeds controlled, rates of applications, directions for use, limitations, and restrictions.
SORGHUM (Grain)	Preplant/ Preemergence Broadcast or Band	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2 pts. Weeds 6": 2-2.7 pts.	Ground: 10 gals. Air: 5 gals.	48 (grain) 20 (forage)	• Do not make more than 3 applications per year. • To allow maximum weed and grass emergence, seedbeds should be formed as far ahead of planting as possible • Seeding should be done with a minimum amount of soil disturbance.
SORGHUM (Grain) Atrazine & 2,4-D ester (Low Volatile) Tank Mix	Preplant or Preemergence	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2 pts. Weeds 6": 2-2.7 pts.		48 (grain) 20 (forage)	• Do not make more than 3 applications per year. • PARAQUAT CONCENTRATE may be tank mixed with Atrazine for improved preemergence or residual weed control. The addition of 2,4-D ester (Low Volatile) may assist in the suppression of perennial and annual broadleaf weeds emerged at the time of application. Always refer to the specific product label(s) for weeds controlled, rates of applications, directions for use, limitations, and restrictions.
SORGHUM (Grain) Harmony® Extra Herbicide Tank Mix	Preplant	1.3-2.5 pts.	Ground: 10 gals.	48 (grain) 20 (forage)	• Do not make more than 3 applications per year. • For improved weed control, PARAQUAT CONCENTRATE may be tank mixed with Harmony Extra. • Always refer to the Harmony Extra label for weeds controlled, rates of applications, directions for use, limitations, and restrictions.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
SORGHUM (Grain)	Postemergence Directed (Including Hooded or Shielded)	0.7-1.3 pts.	Ground: 10 gals.	48 (grain) 20 (forage)	• Do not make more than 2 applications per year. • Apply when weeds are actively growing. • Use higher rate on larger or hard to control weeds. Weeds 6" or taller may not be controlled. • Severe damage and/or complete kill can occur if spray contacts sorghum plants. • Do not exceed 2 postemergence-directed applications or exceed a total of 5.3 pts. PARAQUAT CONCENTRATE per season. **HOODED OR SHIELDED SPRAYERS** • To avoid excessive crop phytotoxicity, use a hooded or shielded sprayer with skids or wheels on the spray boom to maintain spray height. • Apply by directing spray between the rows and by using hooded or shielded sprayers to prevent spray contact with crop plants. **DIRECTED SPRAY WITHOUT HOODED OR SHIELDED SPRAYERS** • Apply when sorghum is at least 12" tall when naturally standing. • Do not exceed 30 psi nozzle pressure or spray under conditions which may cause excessive drift. • Use precision directed-spray application equipment adjusted so that no more than the lower 3" of the sorghum stalk is contacted by the application spray. • Some crop injury will occur. The degree of injury is related to the precision of application and spraying conditions.
SOYBEANS	Preplant or Preemergence	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2 pts. Weeds 6": 2-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Do not exceed a total of 4.0 pts. of PARAQUAT CONCENTRATE per season. • Apply as a broadcast spray before, during or after planting, but before crop emergence. • PARAQUAT CONCENTRATE may be tank mixed with the following herbicides for improved burndown or residual control: 2,4-DB Canopy Dual MAGNUM Goal Harmony Extra (Preplant Only) Lasso Lexone Linex Lorox Lorox Plus Prowl Pursuit Herbicide Scepter Herbicide Sencor Herbicide Surflan® Herbicide Turbo Herbicide • The rate of this product to be used in these tank mixtures is dependent on weed height and growing conditions. Where weed canopy is dense or under dry conditions, use the highest rate of PARAQUAT CONCENTRATE. Always refer to the respective product label(s) for a list of weeds controlled, rates of applications, directions for use, limitations, and restrictions. • The lower application rate may be used when weeds are less than 4" tall and a selective postemergence spray or cultivation will be made within 3 weeds after planting. • Seeding should be done with a minimum amount of soil disturbance. • Do not graze or harvest for forage or hay before the R3 stage of soybean development (early pod).
SOYBEANS 2,4-D ester (Low Volatile) Tank Mix	Preplant or Preemergence	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2 pts. Weeds 6": 2-2.7 pts.	Ground: 10 gals. Air: 5 gals.		• Do not make more than 3 applications per year. • Apply 2,4-D ester (Low Volatile) at 0.35-0.475 lbs. a.i./A at least 7 days prior to planting. • Apply 2,4-D ester (Low Volatile) at 0.475-0.95 lbs. a.i./A at least 30 days prior to planting. • Do not apply 2,4-D ester (Low Volatile) prior to planting soybeans if you are not able to accept the results of soybean injury including possible loss of stand and yield. • Do not use amine formulation as PARAQUAT CONCENTRATE activity may be reduced. • May be tank mixed with residual herbicides listed above. • Always refer to the 2,4-D ester (Low Volatile) label for weeds controlled, rates of application, directions for use, limitations, and restrictions.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
SOYBEANS	Postemergence Directed Spray (Includes Hooded or Shielded)	3.0-5.3 fl. oz.	Ground: 10 gals.	—	• Do not make more than 3 applications per year. • Apply when weeds are actively growing. • Use the lower rate of PARAQUAT CONCENTRATE for control of seedling johnsongrass, crabgrass, goosegrass, Brachiaria, Texas millet and pigweed less than 2" tall. • For control of 2-4" red rice, Brachiaria, barnyard grass, crabgrass, goosegrass, seedling johnsongrass, giant foxtail, and fall panicum, use 5.3 fl. oz. of PARAQUAT CONCENTRATE. • Use 5.3 fl. oz. of PARAQUAT CONCENTRATE for control of 2-3" sicklepod, purslane, pigweed, cutleaf ground cherry, and common ragweed. • Apply PARAQUAT CONCENTRATE at 5.3 fl. oz./A plus 0.2 lb. active ingredient per acre of a 2,4-D formulation for control of 2-4" grasses in mixture with common cocklebur, morningglory, and red rice. • Always refer to the 2,4-D label for weeds controlled, rates of applications, directions for use, limitations, and restrictions • Do not graze or harvest for forage or hay. • If necessary, make a second and final application 7-14 days later. **HOODED OR SHIELDED SPRAYERS** • Apply by directing spray between the rows and using hooded or shielded sprayers to prevent spray contact with crop plants. • Use higher rate on larger (less than 6") or hard to control weeds. Weeds 6" or taller may not be controlled. • Severe damage and/or complete kill can occur if spray intentionally or accidentally (including drift of fine droplets) contacts the plants. **DIRECTED SPRAY WITHOUT HOODED OR SHIELDED SPRAYERS** • Do not treat on soybeans that are less than 8" tall. • Use precision directed spray application equipment adjusted so that no more than the lower 3" of the soybean plant is contacted by the application spray. • Do not exceed 30 psi nozzle pressure or spray under conditions which may cause excessive drift. • Some crop injury will occur. The degree of injury is dependent upon the precision of application and spraying conditions.
SOYBEANS	Harvest Aid	5.4-10.7 fl. oz.	Ground: 20 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Indeterminant varieties: Applications should be made when at least 65% of the seed pods have reached a mature brown color or when seed moisture is 30% or less. Determinant varieties: Apply when plants are mature, i.e., beans are fully developed, 1/2 of leaves have dropped, and remaining leaves are yellowing. • Injury will occur on immature soybeans. • Mature cocklebur, especially drought-stressed plants, are tolerant to PARAQUAT CONCENTRATE and desiccation will not be complete. Always use the higher rate when treating cocklebur. • Do not apply within 15 days of harvest. • Do not graze or harvest for forage or hay.
STRAWBERRIES	Postemergence Directed Spray	1.3 pts.	Ground: 20 gals.	21	• Do not make more than 3 applications per year. • Direct spray between the rows, using shields to prevent spray contact with crop plants. • Do not allow spray to contact strawberry plants as injury or excessive residues may result. • Do not apply more than 3 times per season. • Do not graze livestock in treated areas.
SUGAR BEETS	Preplant or Preemergence	1.3-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • For heavier weed infestations, use the higher label rate. • Seeding or transplanting should be done with a minimum amount of soil disturbance. • Crop plants emerged at time of application will be killed. • Can be used in fallow bed/stale seedbed for weed control. • Seedbeds or plantbeds should be formed as far ahead of treatment as possible to permit maximum weed emergence.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
SUGARCANE	Postemergence Directed Spray (includes Hooded or Shielded)			—	**Use Comments** • Do not make more than 2 applications per year, except applications made by air in Florida and Texas in which the maximum number of applications allowed is 1 per year. • Apply as a hooded, shielded or directed spray to avoid contact with cane foliage to prevent leaf burn and yield reduction. • If necessary, a second and final application can be made when new weed growth is 2-6" high. • Do not graze treated areas or feed treated forage to livestock.
—Florida—		1.3 pts.	Ground: 50 gals.	—	• Do not make more than 2 applications per year. • Optimum results can be obtained by applying in early spring (March-April) when weeds are small. • Do not apply after June 1 as cane growth may be stunted and yields reduced.
—Hawaii—		1.3 pts.	Ground: 20 gals.	—	• Do not make more than 2 applications per year. • Do not apply after cane rows have closed in.
—Louisiana—		0.7-2.0 pts.	Ground: 20 gals.	30	• Do not make more than 2 applications per year. • For tiller control, apply when tillers are less than 18" high. • For heavier weed infestations or tiller growth use the higher rate.
—Florida & Texas—	Harvest Aid	0.4-0.7 pts.	Air: 5 gals.	—	• Do not make more than 1 application per year. • Under cool, cloudy weather conditions use higher rate. • Apply 3-14 days before burning and harvest.
SUNFLOWER	Preplant or Preemergence Broadcast or Banded Over Row	1.7-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Apply before, during, or after planting but before crop emergence.
SUNFLOWER	Preharvest Desiccation Broadcast	0.8-1.3 pts.	Ground: 10 gals. Air: 5 gals.	7	• Do not make more than 2 applications per year. • Apply when sunflower seeds reach physiological maturity (when seed moisture is 35% or lower). For many varieties, this is equivalent to the time when the back of the heads are yellow and the bracts are turning brown. • Do not graze treated areas or feed treated forage to livestock. • When crop stands or weed infestations are heavy, use the higher label rate.
TARO, DRYLAND (Hawaii Only)	Postemergence Directed Spray	1.3-2.1 pts.	Ground: 10 gals.	180	• Do not make more than 2 applications per year. • Do not allow spray to contact the taro plants as injury may result. • Make the first application when weed growth is 1-4" high. • Weeds emerging after the application will not be controlled. • A single re-treatment may be made; however, do not harvest dryland taro within 6 months of the last application.
TREE PLANTATION ESTABLISHMENT Deciduous and Conifers	Preplant Broadcast	1.3-2.7 pts.	Ground: 20 gals.	—	• Do not make more than 3 applications per year. • To allow maximum emergence of weeds prepare ground early. Apply prior to planting. Plant with minimal soil disturbance. • For heavier weed infestations, use the higher application rate. • For improved burndown or residual control, tank mix PARAQUAT CONCENTRATE with other herbicides labeled for this use. • Always refer to the specific tank mix herbicide label(s) for weeds controlled, rates of applications, directions for use, limitations, and restrictions. • Do not apply in less than 20 gals./A as weed control will be reduced.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
TREES AND VINES Orchards Vineyards Windbreak, Shade & Ornamental Trees: Acerola Apples Apricots Avocados Bananas Beechnut Brazil nut Butternut Calamondin Cashew Cherries Chestnut Chinquapin Citrus Citron Coffee Figs Filberts Grapefruit Grapes Hickory nut Kiwi fruit Kumquat Lemon Lime Macadamia nuts Mandarin Nectarines Olives Orange (sour & sweet) Papayas Peaches Pears Pistachios Plums Prunes Pummelo Satsuma mandarin Walnuts Other shade and ornamental trees such as arborvitae, ash, elm, fir, oak, pine, etc.	Directed Spray	1.7- 2.7 pts.	Ground: 10 gals.	Apricots 28 Cherries 28 Figs 13 Kiwi Fruit 14 Nectarines 28 Olives 13 Peaches 14 Pistachios 7 Plums 28	• Do not make more than 5 applications per year, except for: Apricots, Cherries, Kiwi Fruit, Nectarines, Peaches, Plums, no more than 3 applications per year; Olives, no more than 4 applications and Pistachios, no more than 5 applications but only 2 applications after shells split. • Do not allow spray to make contact with green stems (except suckers), fruit or foliage. • Use the shield or wrap plant when spraying around young trees or vines. • Do not graze treated areas. • Do not feed covered crops grown in treated areas to livestock. • Do not apply when figs, nuts or olives to be harvested are on the ground. • **For apricots** - Do not harvest within 28 days after application and do not exceed 3 postemergence directed applications per season. • **For cherries** - Do not harvest within 28 days after application and do not exceed 3 postemergence directed applications per season. • **For figs** - Do not harvest within 13 days after application and do not exceed 5 postemergence directed applications per season. • **For grapes** - Treat when sucker growth is no more than 8" long. Late season applications to weeds should be made to avoid contact with desirable foliage. • **For kiwi fruit** - Do not treat more than 3 times per year. • For mature woody weeds, perennial weeds, late germinating weeds and green suckers, retreatment or spot treatment may be necessary. • **For nectarines** - Do not harvest within 28 days after application and do not exceed 3 postemergence directed applications per season. • **For olives** - Do not harvest within 13 days after application and do not exceed 4 postemergence directed applications per season. • **For peaches** - Do not harvest within 14 days after application, and do not exceed 3 postemergence directed applications per season. • **For pistachios** - Do not exceed 2 applications after shells split. • **For plums** - Do not harvest within 28 days after application and do not exceed 3 postemergence directed applications per season.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
TREES AND VINES Tank Mixes	Directed Spray	1.7-2.7 pts.	Ground: 10 gals.	Always refer to other Tank Mix labels	• Do not make more than 5 applications per year, except for: Apricots, Cherries, Kiwi Fruit, Nectarines, Peaches, Plums, no more than 3 applications per year; Olives, no more than 4 applications and Pistachios, no more than 5 applications but only 2 applications after shells split. • This product may be tank mixed with registered residual herbicides listed below for combined emerged and residual weed control. PARAQUAT CONCENTRATE may be tank mixed with the following herbicides: Devrinol® Herbicide Goal® Karmex® Krovar® Herbicides Princep® Sinbar® Solicam® Herbicide Surflan® • Always refer to other herbicide labels for weeds controlled, rates of applications, directions for use, limitations, and restrictions.
TYFON (New Hampshire only)	Preplant Preemergence	1.7-2.7 pts.	Ground: 10 gals.	—	• Do not make more than 3 applications per year. • Seeding should be done with a minimum of soil disturbance. • Weeds and grasses emerging after treatment will not be controlled. • Crop plants emerged at time of application will be injured.
VEGETABLES (Seeded or Transplanted) Beans (Lima, Snap) Broccoli Cabbage Cantaloupe Carrots Cauliflower Chayote fruit Chinese cabbage Chinese waxgourd Citron melon Collards Cucumber Eggplant Gherkin Gourd, Edible Groundcherry Lettuce Momordica spp. Musk melons Peas Pepino Peppers Pumpkin Squash Sweet Corn Tomatillo Turnips Tomatoes Watermelons	Preplant Preemergence	1.3-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Seedbeds or plantbeds should be formed as far ahead of treatment as possible to permit maximum weed emergence. • Banded or broadcast treatment applications can be made before, during or after planting but prior to the crop emergence. • For heavier weed infestations, use the higher rate. • Seeding or transplanting should be done with a minimum amount of soil disturbance. • Crop plants emerged at time of application will be killed. • PARAQUAT CONCENTRATE can be used in fallow bed/stale seedbed for weed control alone or tank mixed with Goal®. Always refer to the Goal label for weeds controlled, rates of applications, directions for use, limitations, and restrictions. • Do not harvest tomatoes within 30 days after application.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
VEGETABLES Eggplant Peppers Tomatoes	Directed Spray	1.3 pts.	Ground: 10 gals.	—	• Do not make more than 3 applications per year. • For control or suppression of emerged weeds between rows after crop establishment. • Use precision directed spray application equipment adjusted to prevent spray contact with crop plants. Do not exceed 30 psi nozzle pressure. Do not spray under conditions which may cause excessive drift. • Apply when weeds are succulent and weed growth is less than 6". • Do not apply more than 3 applications per season. • Do not allow animals to graze in treated areas. • Do not harvest tomatoes within 30 days after application.
VEGETABLES Tomatoes	After Final Harvest	1.6-2.5 pts.	Ground: 40-120 gals.	—	• Do not make more than 2 applications per year. • Apply in 40-120 gallons of water per acre (0.62-0.93 lb. a.i./A). • Add NIS containing 75% or more surface active agent at 0.125 v/v (1 pt./100 gals. spray solution). • To ensure maximum herbicide burndown, tomato vines should be thoroughly covered. • PARAQUAT CONCENTRATE may be deactivated and less efficacious when dirty or muddy water is used. • To aid in the removal of sweet potato whitefly, burn tomato vines with propane burners as soon as possible after the vines have dried down sufficiently. • DO NOT apply more than a total of 3 lbs. active ingredient (paraquat) per acre per season. • To minimize drift, do not use nozzles or nozzle configurations which produce fine spray droplets (mist).
VEGETABLES (California, Washington, Oregon, Idaho only) Lettuce Melon Sugar Beets Tomatoes	Broadcast	0.4-0.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 2 applications per year. • For control of volunteer barley in preformed seedbeds. • Do not harvest tomatoes within 30 days after application.
VEGETABLES Rhubarb	Dormant	1.7-2.7 pts.	Ground: 10 gals.	—	• Do not exceed 2 applications per year. • Apply during dormant season before buds in crown begin to grow.

RESIN SOAKING

Pines including Loblolly, Shortleaf, Longleaf, Slash, Virginia, Pond, Pitch, and Spruce Pines.

Tree Selection -Trees should be selected from stands on sites not subject to stress from periods of extreme drought stress because the desiccating effect of PARAQUAT CONCENTRATE is accentuated during drought, causing a reduction in the amount of oleoresin deposited in the xylem. Vigorous, non-stagnated natural or planted stands should be selected. Plan PARAQUAT CONCENTRATE treatments in stagnated or commercial timber stands, not sooner than three years after a commercial thinning.

Application Directions: To bring the treatment into contact with sapwood (or xylem), apply water-diluted PARAQUAT CONCENTRATE to an appropriate wound in the tree trunk.

Bark Streaks or Cuts: Use a standard or rotary bark hack or a chainsaw shipping tool (used in naval stores work) to remove a single 1-inch wide streak of bark about 1-2 ft. from ground level. Do not exceed 1/3 of the circumference of the tree. Serious girdling of the trunk and premature death of the tree can result if multiple streaks or cuts are made. Apply a coarse spray (about 1.7-5.0 ml) PARAQUAT CONCENTRATE solution (1-5% cation, wt./wL basis) to runoff to the exposed xylem, using a low-pressure sprayer. The amount of spray required per cut depends on tree circumference and the length of cut or streak. For example, for a 9-inch diameter tree, using 3 ml of 2 or 4% PARAQUAT CONCENTRATE solution will cover the 1-inch wide streak and will result in application of 60 or 120 mg per streak.

Time of Treatment: Less severe pine beetle infestation and longer tree life usually result during cool season treatments under non-drought seasons. However, resin soaking can occur from treatments made any time of the year.

Interval between Treatment and Tree Harvest: There should be at least a 6-month interval between application of PARAQUAT CONCENTRATE and tree harvest. However it is preferable the interval is from 12-24 months, even though intervals of over 6 months may not be possible under conditions of drought or serious pine beetle attacks possibly making early harvest necessary.

With this treatment, there is a potential for promoting beetle attack or causing premature death of the tree. At high dosage rates, desiccation of the xylem tissue, rather than the desired resin soaking, may occur.

Note: This type of treatment may reduce stem growth during between treatment and tree harvest.

Dilution Table for PARAQUAT CONCENTRATE (3.0 lbs. cation per gallon)	
Concentration of Cation Desired (wt./wt. basis)	Add the Following No. Gal. of Water to 2/3 Gallon of PARAQUAT CONCENTRATE
0.2%	118.8
0.5%	46.8
1.0%	22.9
2.0%	10.9
3.0%	6.9
4.0%	4.9
5.0%	3.7

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
CONSERVATION RESERVE, FEDERAL SET-ASIDE, CONSERVATION COMPLIANCE PROGRAMS (For use in compliance with the Federal Conservation Reserve Program or Federal set-aside programs)	Broadcast	1.7-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • PARAQUAT CONCENTRATE may be tank mixed with other herbicides registered for this use for improved emerged weed control or extended weed control. Always refer to tank mix herbicide labels for weeds controlled, rates of applications, directions for use, limitations, and restrictions.
NONCROP USES	Broadcast or Spot Treatment	1.7- 2.7 pts.	Ground: 10 gals.	—	• Repeat applications as necessary but do not make more than 10 applications per year. • To be used in noncrop areas including public airports, electric transformer stations, pipeline pumping stations, around commercial buildings, storage yards and other installations, and fence lines . • Avoid spray contact with the foliage of ornamentals or desired plants.
PASTURE RESEEDING For suppression of existing sod and undesirable emerged broadleaf weeds and grasses prior to or at time of planting grasses or forage legumes	Broadcast	0.7-1.3 pts.	Ground: 10 gals. Air: 5 gals.	See specific geographic recommendation	• Do not make more than 3 applications per year. **West of Cascade and Sierra Nevada Mountains** • Apply in October through December after first fall rains and after weeds have emerged and sod has started new growth. • Apply on moderately to heavily grazed areas for best seeding results. • Do not use in heavy sod and weed growth areas. **East of Rocky Mountains** • Use the 1.3 pts rate on vigorous or coarse sod species such as bromegrass. • Apply prior to, or at time of seeding grasses or forage legumes. • Apply only to grazed or mowed pastures not more than 3" in height at time of treatment. **Bermudagrass or Bahiagrass Sods** • Apply in late summer or early fall to sod not exceeding 3" in height. • For control of emerged little barley, apply in February or March before the mid-boot stage of little barley. **Bermudagrass and Coastal Bermudagrass Pastures** • Apply when bermudagrass is dormant. • For control of little barley, apply before the mid-boot stage. • Do not mow for hay until 40 days after treatment.
For control of endophyte-fungus-infected fescue forage legume/grass mixture and other grass pastures	Broadcast (Split Application)	0.7-1.3 pts. followed by 0.7-1.3 pts.	Ground: 10 gals.	—	• Do not make more than 2 applications per year. • Use split applications of 10-21 days apart if necessary. • Do not exceed 2.6 pts./A total in preparation for reseeding. • For spring plantings, the initial application of 0.7-1.3 pts. may be made the previous fall. • Apply when fescue is actively growing and no more than 4" high. • To reduce the infestation of endophyte-infested grass, do not allow fescue to go to seed starting with the preceding year's crop.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
*For prickly pear desiccation in pastures. *Not for use in California	Spot Sprays	0.8 fl. oz. per gallon of water	Spray to wet weed foliage	—	• Do not make more than 10 applications per year. • Hand-held equipment such as knapsacks backpack sprayers, pump-up pressure sprayers, hand-guns, and hand-wands, can be used to direct the spray onto weed foliage so that the spray thoroughly wets foliage. • Mix 0.8 fl. oz. of PARAQUAT CONCENTRATE and 1/3 fl. oz. of a nonionic surfactant per gallon of water. • Completely and uniformly cover all green prickly pear foliage with spray. • Apply in May through September for best desiccation results. • Do not use more than 1.6 pts. of PARAQUAT CONCENTRATE per acre per year. • Apply only to pastures with no more than 3" of height at time of treatment. • Tank mix with Grazon® P+D Specialty® herbicide at a rate of 1-2 fl. oz. per gallon of water for improved desiccation and perennial control of prickly pear. • Always refer to the Grazon P+D Specialty herbicide label for weeds controlled, rates of applications, directions for use, limitations, and restrictions.
*For Juniper Species leaf moisture reduction or desiccation prior to Prescribed burning of pastures. *Not for use in California	Broadcast	1.3 pts.	Air: 5 gals.	—	• Do not make more than 10 applications per year. • Use only in conjunction with prescribed burning as recommended and monitored by local SCS or University and Extension Range Specialists. • Apply during hot, dry weather conditions (generally July and August). • Use 2% v/v nonionic surfactant in a minimum of 5 gal spray solution. • Monitor juniper leaf moisture content. Maximum leaf moisture reduction generally occurs 3-4 weeks after PARAQUAT CONCENTRATE application. • Significant soil moisture and/or wet weather conditions prior to or after application will decrease the potential for juniper crown burns. • Reduction in leaf moisture can be adversely affected by cool or humid weather conditions.. • Do not graze livestock after application or prior to burning.
*Native Pastures *Not for use in California	Broadcast	1.0-1.25 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 2 applications per year. • Apply PARAQUAT CONCENTRATE for control of downy and Japanese brome. • Apply in spring after 90% node formation of brome species, but before full bloom. • Emerged native perennial grasses will be burned by application, but application after 90% node formation will allow adequate time for native grasses to recover and attain maximum growth in the use season. • Do not apply more than 1.25 pts. PARAQUAT CONCENTRATE per year. • Apply only to pastures with no more than 3" of height at time of treatment.

Conversion Table PARAQUAT CONCENTRATE to Be Applied			
Ounces	Pints	Lb. a.i.	Acres/Gallon
2.5	0.16	0.06	51.3
4.8	0.30	0.11	26.7
5.28	0.33	0.12	24.2
5.52	0.35	0.13	23.2
10.00	0.63	0.23	12.8
11.00	0.69	0.26	11.6
11.20	0.70	0.26	11.4
12.00	0.75	0.28	10.7
16.00	1.00	0.38	8.0
20.00	1.25	0.47	6.4
20.80	1.30	0.49	6.2
24.00	1.50	0.56	5.3
28.00	1.75	0.66	4.6
32.00	2.00	0.75	4.0
40.00	2.50	0.94	3.2
43.20	2.70	1.00	3.0

STORAGE AND DISPOSAL

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

Pesticide Storage: Store in original container and place in a locked storage area. Do not mix or store in containers, spray tanks, nurse tanks, or such systems made of aluminum or having aluminum fittings. Store at temperatures above 32°F. For Emergencies involving a Spill, Leak, Fire, Exposure, or Accident, contact: CHEMTREC at (800) 424-9300.

Pesticide Disposal: Pesticide wastes are acutely hazardous. Improper disposal of excess, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL:
Nonrefillable Container (rigid material; less than 5 gallons):
Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean 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 one-fourth 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. Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.
Nonrefillable Container (rigid material; 5 gallons or greater):
Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container one-fourth 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. 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. Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

(Continued)

(Continuation)

Refillable Containers:

Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10% 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.

WARRANTY STATEMENT IMPORTANT NOTICE - Seller warrants that this product conforms to the chemical description and is reasonably fit for purposes stated on the label when used in accordance with the directions and instructions under normal conditions of use; **but neither this warranty nor any other warranty of merchantability or fitness for a particular purpose, express or implied, extends to the use contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to seller, and to the extent consistent with applicable law, buyer assumes the risk of any such use.**

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Drexel

Drexel Chemical Company

April 22, 2011

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Dear Bo;

Re: Source Dynamics: Paraquat Concentrate : EPA Reg: #82542-3
Drexel Chemical Company: Quik-Quat : EPA Reg;#19713-617
Correction for Postemergence/Hooded Sprayer use on Cotton

We are submitting under PR 98-10 notification corrected labels for both Source Dynamics LLC PARAQUAT CONCENTRATE and Drexel Chemical Company QUIK-QUAT paraquat based products respectively. We are authorized to act on Source Dynamics behalf in all matters regarding their PARAQUAT CONCENTRATE registration actions as of well of course our QUIK-QUAT. We noticed via the marketplace that for some reason the postemergence section chart on cotton(hooded sprayer application) was not our printed labels as it is listed on the other crops on our label. We also noticed that the storage and disposal statements per PR Notice 2007-4 were not identical on our labels thus we have corrected those as well.

In support of this request, the following documents are enclosed: 1 set each for each product:
- Application (8570-1)
- Draft labeling, 2 copies (1 highlighted & 1 clean)

The original EPA approval for each product along with a copy of the other companies approval for each product should be sent to each company corporate address you have on file with your office.

Therefore, original approval for corrected PARAQUAT CONCENTRATE along with copy of QUIK-QUAT approval notification will need to be sent to:

Source Dynamics LLC
10039 E. Troon North Drive
Scottsdale, AZ 85262

Original approval for corrected QUIK-QUAT along with copy of approval notification PARAQUAT CONCENTRATE notification with be sent to:

Drexel Chemical Company
1700 Channel Avenue
Memphis, TN 38113

If you have any questions please submit them to me via email at (space@drexchem.com) or telephone (901) 774-4370 x 316.

Sincerely,

Scott A Pace
Director of Registration Division

1700 Channel Avenue • Post Office Box 13327 • Memphis, Tennessee 38113-0327
Phone: (901) 774-4370 • Fax: (901) 774-4666 • E-Mail: info@drexchem.com • www.DrexChem.com
SINCE 1972

Please read instructions on reverse before com... ing form. Form Approv... 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 82542-3	2. EPA Product Manager Kable Bo Davis	3. Proposed Classification ☐ None ☑ Restricted
4. Company/Product (Name) PARAQUAT DICHLORIDE	PM# 25/Herbicide Branch	
5. Name and Address of Applicant *(Include ZIP Code)* Source Dynamics, LLC 10039 E. Troon North Drive Scottsdale, AZ 85262 ☐ *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.)

Certification statement on seperate sheet

Submission of revised label per PR Notice 98-10.

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	less than 5 gallons; 5 gallons and more	☑ On the label

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)
STANLEY BERNARD	CONSULTANT	(480) 502-9289

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 CONSULTANT	
4. Typed Name STANLEY BERNARD	5. Date April 22, 2011	

EPA Form 8570-1 (Rev. 3-94) Previous editions are obsolete. White - EPA File Copy (original) Yellow - Applicant Copy

Drexel

Drexel Chemical Company

April 22, 2011

NOTIFICATION

MAY 16 2011

Submission of Revised Label by Notification
PARAQUAT CONCENTRATE (EPA Reg. No. 82542-3)

This notification is consistent with the Provisions of PR Notice 98-10 and EPA Regulations at 40 CFR 152.46, and no other changes have been made to the labeling or the Confidential Statement of Formula of this product. I understand that it is a violation of 18 U.S.C. Sec. 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 CFR 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.

ON BEHALF OF SOURCE DYNAMICS, LLC

SCOTT PACE
Director of Registration Division

1700 Channel Avenue • Post Office Box 13327 • Memphis, Tennessee 38113-0327
Phone: (901) 774-4370 • Fax: (901) 774-4666 • E-Mail: info@drexchem.com • www.DrexChem.com
SINCE 1972

Fw: Paraquat
Kable Davis to: Maggie Rudick 05/16/2011 06:40 AM

Maggie-

When you have a chance, please come talk to me about this.

Thanks!
Bo
----- Forwarded by Kable Davis/DC/USEPA/US on 05/16/2011 06:38 AM -----

From:	"Scott Pace" <space@drexchem.com>
To:	"Rufus Bastian" <rbastian@solerasd.com>, "Vaso Stojic" <vstojic@solerasd.com>, "Stanley Bernard" <sbernard@drexchem.com>, Kable Davis/DC/USEPA/US@EPA
Cc:	"Robert Hawk" <zaphawk@aol.com>
Date:	05/14/201 t 10:18 AM
Subject:	RE: Paraquat

Thank you Rufus!!

Scott A. Pace

Director Of Registration Division
Drexel Chemical Company
901-774-4370
space@drexchem.com

From: Rufus Bastian [mailto:rbastian@solerasd.com]
Sent: Friday, May 13, 2011 4:54 PM
To: Vaso Stojic; Stanley Bernard; Scott Pace; Davis.Kable@epamail.epa.gov
Cc: Robert Hawk
Subject: Re: Paraquat

Scott and Stanley,

I just returned home, been out all day. Sorry I did not get your message earlier. I have sent a copy of this to Kalbe Davis as you requested.

To whom is may concern I hereby give authorization to the EPA to make the change to the Source Dynamics Paraquat label as requested by Drexel Chemical Company. We have communicated with Drexel on this matter and fully agree with the changes they are requesting concerning the application of parquat under hooded sprayers.

If you have any questions please feel free to contact me directly.

Rufus Bastian
President
Source Dynamics, LLC

FPL - hj

Restricted Use Pesticide

due to acute toxicity. For retail sale to and use only by certified applicators or persons under their direct supervision and only for those uses covered by the certified applicator's certification.

PARAQUAT CONCENTRATE

Defoliant and desiccant herbicide for the control of weeds and grasses and as a harvest aid.

NEVER PUT INTO FOOD, DRINK OR OTHER CONTAINERS.
IF SWALLOWED, TAKE IMMEDIATE ACTION AS PRESCRIBED IN FIRST AID.
SYMPTOMS ARE PROLONGED AND PAINFUL.
DO NOT USE OR STORE IN OR AROUND THE HOME.
DO NOT REMOVE CONTENTS EXCEPT FOR IMMEDIATE USE.
THE ODOR OF THIS PRODUCT IS FROM THE STENCHING AGENT WHICH HAS BEEN ADDED, NOT FROM PARAQUAT.

Active Ingredient:

paraquat dichloride (1,1'-dimethyl-4,4'-bipyridinium dichloride)	43.2%
Other Ingredients:	56.8%
Total:	100.0%

Contains 3.0 pounds paraquat cation per gallon as 4.14 pounds of dichloride salt per gallon.
Contains emetic and stench (odor).

KEEP OUT OF REACH OF CHILDREN

DANGER/PELIGRO

POISON

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

solera

Manufactured for:
Source Dynamics, LLC
10039 E. Troon North Drive
Scottsdale, AZ 85262

EPA Reg. No.:	82542-3
EPA Est. No.	84662-CHN-001
Net Contents:	2.5 gal, 265 gal
LABEL REV.	PQT-05-R0210

Product of China

FIRST AID Contains Paraquat, a Bipyridinium Herbicide. Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
If swallowed	• Call a poison control center or doctor IMMEDIATELY for treatment advice. • SPEED IS ESSENTIAL. Immediate medical attention is required. If available, give an absorbent such as activated charcoal, bentonite or Fuller's Earth. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to by a poison control center or doctor. • Do not give anything by mouth to an unconscious person.
If inhaled	• Move person to fresh air. • The odor of this product is from the stenching agent, which has been added, not from the paraquat. • If person is not breathing, call 911 or an ambulance. • Call a poison control center or doctor for treatment advice.
If in eyes	• Hold eye open and rinse slowly and gently with water for 15-20 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 on skin or clothing	• 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.

NOTE TO PHYSICIAN: Administer either activated charcoal (100g for adults or 2g/kg body weight in children) or Fuller's Earth (15% solution; 1 liter for adults or 15ml/kg body weight in children). NOTE: The use of gastric lavage without administration of an absorbent has not shown any clinical benefit. Do not use supplemental oxygen. Eye splashes from concentrated material should be treated by an eye specialist after initial treatment. With the possibility of late onset corneal ulceration, it is advised that patients with paraquat eye injuries are reviewed by an eye specialist the day after first presentation. Use treatment that is appropriate for chemical burns. Intact skin is an effective barrier to paraquat; however, contact with irritated or cut skin or repeated contact with intact skin may result in poisoning.

HOT LINE NUMBERS:
SAFETY DATA AND INFORMATION 203-573-3303
TRANSPORTATION EMERGENCY (CHEMTREC) 800-424-9300

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER. May be fatal if swallowed. Fatal if inhaled. Corrosive. Causes irreversible eye damage. Wear protective eyewear. Do not breathe spray mist. Wear a dust mist respirator. Causes irreversible eye damage. Do not get in eyes or on clothing. Harmful if absorbed through skin. Avoid contact with skin. Prolonged or frequently repeated contact may cause allergic reactions in some individuals.

IMPORTANT: Inhalation is an unlikely route of exposure due to low vapor pressure and large spray droplet size, but mucosal irritation or nose bleeds may occur. Prolonged contact with this concentrated product can irritate your skin.

Personal Protective Equipment (PPE)

Applicators and other handlers (other than mixers and loaders) must wear:

Long-sleeved shirt and long pants; Chemical resistant gloves – Category A (e.g., barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinyl chloride (PVC) or viton); Shoes plus socks; Protective eyewear; NIOSH-approved particulate filtering respirator equipped with N, R or P class filter media. The respirator should have a NIOSH approval number prefix TC-84A. It is recommended that you require that respirator wearer to be fit tested, and trained in the use, maintenance and limitations of the respirator.

Mixers and loaders must wear:

Long-sleeved shirt and long pants
Chemical resistant gloves – Category A (e.g., barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinyl chloride (PVC) or viton)
Shoes plus socks
Chemical resistant apron
Face shield
NIOSH-approved particulate filtering respirator equipped with N, R or P class filter media. The respirator should have a NIOSH approval number prefix TC-84A. It is recommended that you require that respirator wearer to be fit tested, and trained in the use, maintenance and limitations of the respirator.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

Engineering Controls: When handlers use closed systems, enclosed cabs, or aircraft 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.

User Safety Recommendations

Users should:

Wash hands before eating, drinking, and 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.

ENVIRONMENTAL HAZARDS

This product is toxic to wildlife. 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 cleaning equipment or disposing of equipment wash waters.

Paraquat dichloride is toxic to nontarget crops and plants if off-target movement occurs because it desiccates all green plant tissue. Extreme care must be taken to ensure that off-target drift is minimized to the greatest extent possible. Refer to the local state laws, regulations, guidelines, and spray drift information contained in the Directions for Use section for proper application to avoid off-target movement. Do not apply under conditions involving possible drift to food, forage, or other plantings that might be damaged or the crops thereof rendered unfit for sale, use, or consumption. Do not apply when weather conditions favor drift from treated areas. To avoid drift, do not make aerial application during periods of thermal inversion.

PHYSICAL AND CHEMICAL HAZARDS

This product is mildly corrosive to aluminum and produces hydrogen gas which may form a highly combustible gas mixture. Do not mix or store in containers, spray tanks, nurse tanks, or such systems made of aluminum or having aluminum fittings. The product is compatible with high density polyethylene and rubber-lined steel containers.

DIRECTIONS FOR USE

Restricted Use Pesticide. It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

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. Do not use around home gardens, schools, recreational parks, golf courses or playgrounds.

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 interval. The requirements in this box only apply to use of this product that are covered by the Worker Protection Standard.

For preplant or preemergence (broadcast or banded), chemical fallow, postemergence directed spray applications, early postemergence broadcast in peanuts and dormant season applications, and "between cutting" applications in alfalfa: Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of **12 hours.**

For harvest aid and desiccation application: 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
Shoes plus socks
Protective eyewear
Chemical resistant gloves - Category A (e.g., barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinyl chloride (PVC) or viton).

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 others to enter the treated area until sprays have dried.

AVOID working in spray mist.

Keep all unprotected persons out of operating areas or vicinity where there may be danger of drift.

Certain states may require more restrictive reentry intervals; consult your State Department of Agriculture for further information.

USE INSTRUCTIONS AND INFORMATION

Do not apply this product through any type of irrigation system.

When PARAQUAT CONCENTRATE is applied at less than 10 gallons per acre finished spray volume, a drift control or spray deposition additive SHOULD be used. Refer to the additive label for rates of applications, directions for use, limitations, and restrictions.

SPRAY DRIFT INFORMATION

AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR. The interaction of many equipment- and weather-related factors determines the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following DRIFT MANAGEMENT REQUIREMENTS must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

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°.

Where states have more stringent regulations, they shall be observed.

The applicator should be familiar with and take into account the information covered in the Aerial Drift Reduction Advisory Information.

Where states have more stringent regulations, they must be observed.

AERIAL DRIFT REDUCTION ADVISORY INFORMATION

Information on Droplet Size

The most effective way to reduce drift potential is to apply large droplets. The best management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environment conditions (see Wind, Temperature and Humidity, and Temperature Inversions).

Controlling Droplet Size

- **Volume** - Use high flow rate nozzles to apply the highest spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure** - Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- **Number of Nozzles** - Use the minimum number of nozzles that provide uniform coverage.
- **Nozzle Orientation** - Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- **Nozzle Type** - Use a nozzle that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

Boom Length

For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.

Application Height

Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making application at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

Swath Adjustment

When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase with increasing drift potential (higher wind, smaller drops, etc.).

Wind

Drift potential is lowest between wind speeds of 2-10 mph. However, many factors, including droplet size and equipment type, determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. NOTE: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

Temperature and Humidity

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

Temperature Inversions

Applications can not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes 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 are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They 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 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.

Sensitive Areas

The pesticide can only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

USE INFORMATION

PARAQUAT CONCENTRATE is a liquid formulation containing 3 lbs. of active ingredient per gallon. It contains a nontoxic odor to help prevent accidental ingestions. It also contains an emetic (an agent which will induce vomiting if the product is swallowed).

APPLICATION

PARAQUAT CONCENTRATE is a contact herbicide for control or suppression of a broad spectrum of emerged weeds including most small annual broadleaf and grass weeds. It can also be used to suppress perennial weeds by destroying green foliage and as a desiccant/ defoliant at harvest.

Complete coverage of target weeds is necessary to get good control because PARAQUAT CONCENTRATE is a contact-type herbicide. It is also necessary to obtain complete coverage for good crop desiccation and defoliations. Undesirable weed control and undesirable crop desiccation/defoliation will result if improper application technique and/or application to large, stressed, or mown weeds are made. Refer to the following details for specific application instructions.

Thorough coverage of all green foliage is required for efficacious weed control and crop defoliation and desiccation because PARAQUAT CONCENTRATE requires actively growing green plant tissue to function. Drought-stressed weeds, weeds with little green foliage (i.e., mowed or cut weeds), or mature woody bark of trees and vines are unaffected by application with PARAQUAT CONCENTRATE.

There is no residual soil activity to affect later-planted crops or later germinating weeds because clay and organic matter rapidly tie up PARAQUAT CONCENTRATE.

ROTATIONAL CROPS

After the last application PARAQUAT CONCENTRATE, all rotational crops may be planted immediately.

RAINFASTNESS

Rain occurring 30 minutes or more after application will have no effect on the activity of PARAQUAT CONCENTRATE because it is rapidly absorbed by the weed foliage.

USE OF A NONIONIC SURFACTANT OR CROP OIL CONCENTRATE

The following should always be added and be used at the recommended rates or there will be a reduction in efficacy of PARAQUAT CONCENTRATE.

Nonionic Surfactant: Either add a nonionic surfactant cleared for the current use containing 50-74% surface-action agent at 0.25% v/v (2 pts./100 gals.), or add nonionic surfactant containing 75% or more surface-active agent at 0.125% v/v (1 pt./100 gals.), of the finished spray volume for ground applications. Add a nonionic surfactant at 0.25% v/v (2 pts./100 gals.) of the finished spray volume for aerial applications.

Crop Oil Concentrate: For ground applications, add a nonphytotoxic crop oil concentrate cleared for the current use that contains15-20% approved emulsifier, with 1.0% v/v (1 gal./100 gals.) of the finished spray volume. Add 1 pt. of crop oil concentrate per acre for aerial applications. **For cotton harvest aid, do not use crop oil concentrate when using** PARAQUAT CONCENTRATE.

NOZZLE SELECTION

The use of flat-fan nozzles is the most effective application of PARAQUAT CONCENTRATE. The use of flood nozzles may result in a reduction of weed control due to inadequate coverage because they produce large uneven droplets.

Use only flat fan nozzles when spraying less than 20 gallons of spray carrier per acre using the following table.

Recommended Nozzle Type and Spray Pressures and Setup

	Nozzle Type	
	Flat Fan	Flood
Maximum Size	8	15
Spray Pressure (at nozzle)	30-50 psi	30-50 psi
Maximum Nozzle Spacing	30"	40"
Direction of Spray Pattern	Down	Down
Maximum Speed	10 mph	10 mph
Spray Overlap (at each edge)	30%	50%

Reduced control will result if nozzles, pressures, or setups differ from the above chart.

SPRAY CARRIER

PARAQUAT CONCENTRATE may be inactivated by muddy water, or suspension-type fertilizers containing clay. Therefore, always use clean water (free of mud or clay), clear liquid nitrogen, or complete clear liquid fertilizers as the carrier when spraying this product. Never use suspension-type fertilizers containing clay as the spray carrier. Always use the higher rate of PARAQUAT CONCENTRATE and surfactant if using a complete clear liquid fertilizer containing high phosphate levels as the spray carrier.

Note: It is important that when using liquid fertilizers such as 28% N as a spray carrier, that nonionic surfactant still be used with PARAQUAT CONCENTRATE. The use of liquid fertilizer carriers are not substitutes for surfactants.

RATES OF PARAQUAT CONCENTRATE

With each use, follow rates listed in the following tables. When weeds are larger or are dense, use the higher label rates. For use as a harvest aid, use higher rate when crop vegetation is dense. Do not exceed 0.50 lbs. a.i./A in a minimum of 30 gallons of spray for broadcast applications with backpack sprayers.

SPRAY VOLUME

With each use, follow rates listed in the following tables. Spray volumes should be increased as necessary to obtain complete coverage of the target weed or plant without runoff from the foliage, because the volumes listed are minimum volumes only.

TARGET WEEDS SHOULD NOT EXCEED SIX INCHES IN HEIGHT WHEN SPRAYING LESS THAN 20 GALLONS OF SPRAY CARRIER PER ACRE.

APPLICATION TIMING

Applications should be made to small emerged weeds. Larger weeds more than 6 inches in height may be more difficult to control than weeds 1-6 inches in height. If possible, when green foliage is removed either from grazing or mowing, allow the weeds to grow 2-4 inches in height. Also, during harvesting forage or grain crops before spraying, weeds present in the field are also cut. Therefore, raise cutter bars as high as possible from the ground to cut stubble and weeds at a greater height, allowing sufficient green foliage to remain for applications.

BURNDOWN OF GRASS COVER CROPS OR VOLUNTEER CEREALS

The best results occur for control of grass cover crops or volunteer cereals when PARAQUAT CONCENTRATE is applied prior to tillering or after boot stage, especially with a wheat cover crop or volunteer wheat. Complete control may not be achieved with treatments made between tillering and boot stage. Complete control of perennial cover crops should not be expected.

ENVIRONMENTAL CONDITIONS

This product is active over a wide range of environmental conditions such as cool (below 55°F), cloudy or overcast weather. However these conditions will slow the activity of PARAQUAT CONCENTRATE.

SPOT SPRAYING

Refer to the following table if only small areas are to be sprayed with labeled applications.

Mixing Instructions for Small Quantities for Spot Spraying

If the Broadcast Rate Per Acre for PARAQUAT CONCENTRATE is:	The Following Amount of PARAQUAT CONCENTRATE to 1 Gallon of Water
1 1/2 pts.	1/3 fl. oz
2 pts.	3/8 fl. oz.
2 1/2 pts.	1/2 fl oz.
3 pts.	2/3 fl. Oz.

Add 1/3 - 1/2 fl. oz. of a nonionic surfactant for each gallon of spray at all times. Thoroughly wet the foliage, but not to the point of runoff when spot spraying in this manner.

TANK MIXING: ENHANCED BURNDOWN OF DIFFICULT-TO-CONTROL WEEDS AND FOR RESIDUAL WEED CONTROL

Photosynthetic Inhibitor Herbicides

To control difficult weeds, tank mix PARAQUAT CONCENTRATE with other herbicides. The addition of other photosynthetic inhibitors (PSI) herbicides will slow the activity of PARAQUAT CONCENTRATE. This allows PARAQUAT CONCENTRATE to thoroughly distribute throughout a treated leaf, thus achieving better control than if PARAQUAT CONCENTRATE was applied alone.

PARAQUAT CONCENTRATE may be applied in tank mixture with the following PSI herbicides:

AAtrex® Herbicide

Atrazine Herbicide

Bicep Lite II

MAGNUM® Herbicide

Bicep MAGNUM® Herbicide

Canopy® Herbicide

Lariat® Herbicide

Lexone® Herbicide

Linex® Herbicide

Lorox® Herbicide

Lorox Plus™ Herbicide

Princep® Herbicide

Sencor® Herbicide

Always refer to the respective product label(s) for rates of applications, directions for use, limitations, and restrictions.

Improved Weed Control with PSI's

The addition of a PSI herbicide will help improve the control of difficult weeds listed below. Make a second application for best results.

Barnyardgrass
Broadleaf signalgrass
Cheatgrass
Cocklebur
Fall panicum
Giant ragweed
Knotweed
Kochia
Lambsquarters
Malva (cheeseweed)
Marestail
Morningglory
Pennsylvania smartweed
Perennial weeds (suppression only)
Prickly lettuce
Sedges
Tansymustard
Velvetleaf
Volunteer wheat

Improved Control of Perennial and Annual Broadleaf Weeds

Tank mixing with labeled 2,4-D ester (Low Volatile), 2,4-DB or Banvel® herbicide will help improve control when perennial broadleaf weeds such as Canada thistle, bindweed, dandelion, etc., or difficult to control annual broadleaf weeds such as giant ragweed or morningglory are present. Reduced grass control may be achieved when tank mixing the amine formulation of 2,4-D with PARAQUAT CONCENTRATE .

Order of Tank Mixing

It is advisable to tank mix PARAQUAT CONCENTRATE and other listed products as follows:

1. Fill spray tank 1/2 full with clean water or other approved carriers such as clear liquid fertilizer.
2. Begin tank agitation and continue throughout mixing and spraying.
3. Add dry formulations (WP, DF, etc.) to tank.
4. Add liquid formulations (SC, EC, L, etc.) to tank.
5. Add PARAQUAT CONCENTRATE to tank.
6. Add nonionic surfactant to tank.
7. Fill remainder of spray tank.

Always read other pesticide products labels for weeds controlled, rates of applications, directions for use, limitations, and restrictions.

It is advisable to perform a jar test to check physical compatibility when using different formulation of the herbicides listed on this label.

USE PRECAUTIONS AND RESTRICTIONS

EQUIPMENT

PARAQUAT CONCENTRATE is corrosive to aluminum. Thoroughly flush all aluminum spray equipment and aluminum aircraft structures that are exposed to spray solution or spray drift with water immediately after use.

The activity of PARAQUAT CONCENTRATE may be reduced in dry areas where dust stirred up by high winds or equipment tires can coat weed or plant leaves. Therefore, avoid applications in extremely dusty conditions.

LIMITATIONS AND PRECAUTIONS

- Unless otherwise indicated, PARAQUAT CONCENTRATE will severely injure or kill crop plants emerged at time of application if they come in contact with sprays.
- Do not pasture livestock in treated fields or feed treated foliage in cotton when this product is used as a cotton harvest aid.
- Do not use around home gardens, schools, recreational parks, or playgrounds.
- Do not apply to soils lacking clay minerals such as peat, muck, pure sand, artificial planting media for preplant and preemergence (to the crop) uses.
- To enable maximum weed and grass emergence prior to treatment, seedbeds and plantbeds should be formed as far ahead of planting and treatment as possible.
- Avoid disturbing soil when seeding or transplanting.
- Transplanted plants may become damage when they come in contact with plastic mulch used for preplant weed control and that has been treated with this product.To prevent damage to the crop, sufficient wash-off such as rainfall or sprinkler irrigation prior to planting may be needed.
- PARAQUAT CONCENTRATE will be ineffective in controlling or suppressing weeds and grasses that have emerged after application.

APPLICATION INSTRUCTIONS

Crop	Weeds	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
ALFALFA (California only) New seedlings		Broadcast	0.7-1.3 pts. See Table 2.	Ground: 10 gals. Air: 5 gals.	70	• Do not make more than one application per year. • Applications should be made during late winter or early spring. • Do not cut or harvest within 70 days after application. • Alfalfa foliage present at time of application will be burned. • Replanting may be needed due to the reduction of seedling stands. • Do not apply to seedling alfalfa grown for seed.
ALFALFA Preplant or Preemergence (No-till or conventional planting)		Broadcast or Banded Over Row	1.7-2.7 pts.	Ground: 10 gals. Air: 5 gals.		• Do not make more than 2 applications per year. • Apply prior to emergence of the crop. Avoid disturbing soil when seeding. • Crop plants emerged at time of application will be killed.
ALFALFA Dormant season Established plantings Region A - See table at end of Alfalfa section	Weeds, including bluegrass, chickweed, henbit, downy brome, ryegrass, cheatgrass, dogfennel, tansymustard, London rocket, sowthistle, rescue brome, wild oats, and other winter annuals; and suppression of perennial weeds.	Broadcast	1.3-2.0 pts.	Ground: 10 gals. Air: 5 gals.	42	• Do not make more than one application per year. • **Fall regrowth:** Do not apply if last fall cutting is greater than 6." • **Spring regrowth:** Do not apply if last cutting is greater than 2". • After the crop is dormant, apply to well-established stands that are at least 1-year old. • Yield of first cutting may be reduced because alfalfa foliage present at the time of application will be burned. • Do not cut or harvest within 42 days after application. • For improved and longer-lasting weed control, tank mix with metribuzin (Lexone or Sencor). Always refer to the metribuzin label for weeds controlled, rates of applications, directions for use, limitations, and restrictions.
ALFALFA **Dormant season Tank Mix with Velpar® L-Herbicide** **Region A - See table at end of Alfalfa section**	Weeds including chickweed, downy brome and tansymustard.	Broadcast	0.7-1.3 pts.	**Ground:** 10 gals. Air: 10 gals.	42	• Do not make more than 2 applications per year. • When weeds are less than 4 inches tall apply at 0.7 pt. rate PARAQUAT CONCENTRATE • Mix PARAQUAT CONCENTRATE with 1-2 qts. of Velpar L per acre. • Use lower rate of Velpar L on loamy sands or sandy loams. Always refer to the Velpar L label for weeds controlled, rates of applications, directions for use, limitations, and restrictions. • During the dormant season, make one application to established alfalfa stands . • Fall regrowth: Do not apply if last fall cutting is greater than 6." • Spring regrowth: Do not apply if last cutting is greater than 2". • Do not apply to alfalfa during the first season after seeding. • Temporary chlorosis may occur on alfalfa regrowth. • Increased chances of crop injury may occur if stress which may be caused in part by low fertility, disease, insects, winterkill, over cutting, drought or frost. • DO NOT USE on gravelly or rocky soils, exposed subsoils, hardpan, sand or poorly drained alkaline soils as crop injury, including mortality, may result. • Do not cut or harvest within 42 days of application.

Crop	Weeds	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
ALFALFA Dormant Season On established plantings: Region B: See table at end of Alfalfa section. On fall-seeded newly established stands less than 1-year-old: Region A - See table at end of Alfalfa section On fall-seeded newly established stands less than 1-year-old: Region B - See table at end of Alfalfa section	Weeds including London rocket, sowthistle, rescue brome, wild oats, chickweed, ryegrass, bluegrass, cheatgrass, dogfennel, tansymustard, henbit, downy brome, and other winter annuals; and suppression of perennial weeds **California:** Desiccation of weeds including bluegrass, ryegrass, shepherdspurse, chickweed, tansymustard, foxtail, sowthistle and groundsel.	Broadcast	0.7-1.3 pts.	Ground: 10 gals. Air: 5 gals.	60	• Do not make more than one application per year. • Applications should be made before first spring cutting and during late fall or winter months after the last fall cutting. • **California:** Do not apply if **spring regrowth** after grazing or cutting is more than 2 inches in Orange and Riverside counties, and all counties north of these counties. • **All other areas within Region B:** Do not apply if regrowth after grazing or cutting is more than 2 inches. • Do not harvest within 60 days of application. • Applications to alfalfa that is not dormant, or has broken dormancy, may result in stand and/or yield reductions. Replanting may be necessary. Green alfalfa foliage present at time of application will be burned. • If there is a severe weed infestation, total hay yield of first cutting may be reduced in alfalfa fields and the reduction is typically directly proportionate to the loss of weed weight. • For improved and residual weed control in **dormant established (at least 1-year-old) alfalfa**, tank mix with metribuzin (Lexone or Sencor). Do not apply tank mix with metribuzin on alfalfa that is less than 1-year-old. • Always refer to metribuzin label for weeds controlled, rates of applications, directions for use, limitations, and restrictions. **California** • If ryegrass, shepherdspurse, sowthistle or groundsel are present, use higher rate.
		Broadcast	0.7-1.3 pts.	Ground: 10 gals. Air: 5 gals.	60	
		Broadcast	0.5-0.8 pts.	Ground: 10 gals. Air: 5 gals.	60	

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
ALFALFA (East of the Rocky Mountains) Between-cuttings treatment in established plantings. (Includes first year alfalfa)	Broadcast	0.7 pt.	Ground: 10 gals.	30	• Do not make more than 3 applications per year. • Control of weeds beyond the seedling stage and weed stubble cut off during harvest are less affected by this treatment. • Make applications immediately after alfalfa has been removed for hay or silage. • Do not treat more than 5 days after cutting. • A reduction in first year alfalfa stands and yeilds may occur if alfalfa is allowed to regrow more than 2 inches. • Burning of alfalfa foliage will occur at time of application. • Weed control may be reduced where moisture is limited such as in arid climates. • Do not cut or harvest within 30 days of application. • Apply as needed up to three times during the growing season in addition to a dormant application. • Do not make more than 2 applications during the first growing season of first-year alfalfa.
ALFALFA [For use only in the following states: ID, MT, NV, OR, UT, WA, WY] Desiccation of alfalfa to aid harvesting alfalfa seed	Broadcast	1.7-2.7 pts.	Ground: 20-25 gals. Air: 5-10 gals.	See Precautions	• Do not make more than 2 applications per year. • Do not harvest until at least 4 days after application. • Do not apply when weather conditions favor drift from treated areas. • Do not apply by ground equipment within 25 ft., or by air within 75 ft. of lakes; reservoirs; rivers; permanent streams; marshes or natural ponds; estuaries; and commercial fish farm ponds. • Use only on fields in production of alfalfa seed. Do not use on fields producing alfalfa for livestock feed. Do not use any portion of the treated field for human or animal feed, including seed, seed screenings, hay forage, or stubble • Do not cut current year's treated alfalfa seed crop for hay or forage. Do not graze current year's treated alfalfa seed crops. • Do not use treated alfalfa seed for sprouting. Tag all alfalfa seed treated with PARAQUAT CONCENTRATE/Reglone tank mix at processing plants with, "NOT FOR HUMAN CONSUMPTION". The grower is responsible for notifying the processing plants of any seed crop treated with PARAQUAT CONCENTRATE/Reglone tank mix. • Remove ALL PARAQUAT CONCENTRATE/Reglone treated alfalfa seed screenings from the market because all screening from alfalfa seed processing are prohibited from feed channels.
PARAQUAT CONCENTRATE/ Reglone Tank Mix	Broadcast	1.3-2.7 pts. PARAQUAT CONCENTRATE/ 2 pts. Reglone	Ground: 20-25 gals. Air: 5-10 gals.	See Precautions	

ALFALFA: New Seedlings - Suppression and control of broadleaf weeds and grasses in new alfalfa seedlings grown for hay (California only).		
	Rate/Acre*	
For Control of:	For Suppression	For Control
Annual Bluegrass	—	10.7-21.3 fl. oz.
Chickweed	—	10.7-21.3 fl. oz.
Fiddleneck (6 inches tall or less)	5.4-10.7 fl. oz.	21.3 fl. oz.
Red Maids (6 inches tall or less)	—	10.7-21.3 fl. oz.
Shepherdspurse	10.7-21.3 fl. oz.	—
Spikeweed (4 inches tall or less)	5.4 fl. oz.	10.7-16.0 fl. oz.
Volunteer Small Grain (8 inches tall or less)	5.4-10.7 fl. oz.	21.3 fl. oz.

- **Use the 5.4 fl. oz. rate only when alfalfa has at least 3 trifoliate leaves; use the 10.7 fl. oz. rate only when alfalfa has 6 trifoliate leaves; or use rates over 10.7 fl. oz. only when there are 9 trifoliate leaves.**

Alfalfa – Regions

REGION A
Alaska, California (counties of Del Norte, Siskiyou, Modoc, Shasta, Lassen, Plumas, Sierra and Nevada), Colorado, Connecticut, Delaware, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New York, North Dakota, Ohio, Oregon, Pennsylvania, Rhode Island, South Dakota, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming

REGION B
Alabama, Arizona, Arkansas, California (all other counties not listed in Region A), Florida, Georgia, Hawaii, Louisiana, Mississippi, New Mexico, North Carolina, Oklahoma, South Carolina, Tennessee, Texas

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
ALMONDS	Directed Spray	0.8-2.7 pts.	Ground: 10 gals.	—	• Do not make more than 5 applications per year. • Avoid allowing spray to contact green stems (except suckers) or foliage. • When spraying around young trees, use a shield or wrap plant . • Do not graze treated areas and do not feed cover crops grown in treated areas to livestock. • Do not apply when nuts to be harvested are on the ground. • Retreatment or spot treatments may be necessary for mature woody weeds, perennial weeds, late germinating weeds and green suckers.
ARTICHOKE (GLOBE)	Directed Spray	1.7-2.7 pts.	Ground: 20-100 gals.	1	• Do not make more than 3 applications per year. • Do not exceed 8 pts. per season. • Applications must be made at least 7 days apart. • Do not harvest within 24 hours of last application.
ASPARAGUS	Preplant or Preemergence Broadcast or Banded Over-Row	1.7-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Application should be made prior to emergence of the crop. • Emerged asparagus at time of application will be killed.
ASPARAGUS Preemergence to established plantings at least 2 years old.	Broadcast or Banded Over-Row	1.7-2.7 pts.	Ground: 10 gals.	6	• Do not make more than 3 applications per year. • Application should be made prior to emergence of the crop or after last harvest. • Emerged asparagus at time of application will be killed.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
BEANS, DRY **Not for use in California** Sweet lupin White sweet lupin White lupin Grain lupin Adzuki beans Asparagus beans Black beans Broad beans Field beans Garbanzo beans Kidney beans Lablab beans Moth beans Mung beans Navy beans Pinto beans Rice beans Tepary beans Urd beans Guar **PEAS, DRY** **Not for use in California** Blackeyed peas Chickpeas Cowpeas Crowder peas Southern peas Catjang	Harvest-Aid	0.8-1.3 pts.	Ground: 20 gals. Air: 5 gals.	7	• Do not make more than 2 applications per year. • Add nonionic spreader at 1 qt./100 gals.of spray mix. • Use a single application of the higher rate for vining type beans or bush type with lush growth. • May also be applied as a split application and may improve vine coverage. However do not make more than 2 applications per year or exceed a total of 1.3 pints per acre. • Apply when at least 80% of the pods are yellowing and mostly ripe and when leaves are no more than 40% of bush type peas or beans or 30% of vine type peas or beans are green . • Do not apply when weather conditions favor spray drift. To reduce drift, a drift control agent may be included. • Not registered for use in dry beans and dry peas in California.
BERRIES Blackberry, Blueberry, Boysenberry, Currant, Elderberry, Gooseberry, Huckleberry, Loganberry, Raspberry	Postemergence Directed Spray	1.3-2.7 pts.	Ground: 50 gals.	—	• Do not make more than 5 applications per year. • New canes or shoots can be injured. Therefore, apply before their emergence. • To prevent crop injury from spray mist, apply as a coarse spray.
CACAO	Directed Spray	1.3-2.7 pts.	Ground: 50-200 gals.	1	• Do not make more than 5 applications per year. • Apply when weeds are succulent and growth is from 1-6". • Retreatment or spot treatments may be necessary for mature woody weeds, late-germinating weeds and grasses and for perennials. • Use a shield for young trees to prevent sprays from contacting cacao plants, as injury may result. • Do not spray under windy conditions. • Do not graze treated areas or feed treated cover crops to livestock.
CASSAVAS, TANIERS & YAMS (Puerto Rico only)	Shielded Post Directed Spray	1.3 pts.	Ground: 50 gals.	90	• **Cassavas and Taniers:** Do not make more than 3 applications per year. • **Yams:** Do not make more than 2 applications per year. • Make applications when weeds are succulent and growth is 1-6". • Prevent spray from contacting crop to prevent injury to crop. • Do not spray under windy conditions. • Do not graze treated areas or feed treated forage to livestock.

Use Information for Chemical Fallow

- As the density of stubble, crop residue or weeds increases, use higher spray volumes for better coverage.
- To control volunteer wheat or downy brome, fall-applied treatments generally work best with PARAQUAT CONCENTRATE. If possible, tank mix with atrazine for maximum burndown and residual control.
- Apply from immediately after harvest up to emergence of the newly seeded crop as a broadcast or band treatment.
- Before applying PARAQUAT CONCENTRATE, cut wheat as high as possible to avoid cutting weeds too short, and allow the weeds to grow at least 2-3" after harvest .
- The addition of dicamba (Banvel) or 2,4-D ester (Low Volatile) may aid in the suppression of emerged perennial broadleaf weeds and large annual

broadleaf weeds. Always refer to the product label(s) for 2,4-D ester (Low Volatile), Banvel, or residual herbicide for rates of applications, directions for use, limitations, and restrictions.

- If is permissible to tank mix with registered residual herbicide combinations other than listed for extended weed control during the fallow period
- Weeds and grasses emerging after application and weeds taller than 6 inches will not be controlled.
- Crop plants emerged at the time of application will be killed.
- The minimum total spray per acre allowed is 5 gallons for ground and 5 gallons for air applications.
- Apply 5-60 gallons spray mix per acre by ground application.

When applying at less than 10 GPA by ground:

Do not apply with floaters or exceed a speed of f0 mph.
Apply with flat fan nozzles at 30-40 psi.
Apply only in a tank mix with atrazine af a minimum of 0.5 lb. a.i./acre.
By air: apply in 5- f0 gallons of spray mix per acre.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
CHEMICAL FALLOW Continuous Wheat (2-3 month recropping interval)	Broadcast	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2.0 pts. Weeds 6": 2-2.7 pts.	Ground: 5 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Apply af least 45 days before seeding. • For volunteer wheat or downy brome control in spring, use af least f.3 pts. of PARAQUAT CONCENTRATE per acre with a Photosynthetic Inhibitor Herbicide. • Refer to the section "Use Information for Chemicat Fallow".
CHEMICAL FALLOW Wheat-Fallow-Wheat Rotations (Fall applied after harvest; seeded 12-14 months later)	Broadcast	Weeds 1-3": f.3-1.7 pts. Weeds 3-6": 1.7-2 pts. Weeds 6": 2-2.7 pts.	Ground: 5 gals. Air: 5 gals.	—	• Do nof make more than 3 applications per year. • Spray before weeds produce seeds. • Control of volunteer wheat and downy brome control increases when applications are made late August or early September. • For improved burndown and residual control of weeds, fank mix with Afrazine, Marksman® Herbicide, or Command® Herbicide. • For improved burndown and residual control of grass and broadleat weed tank mix with metribuzin (Sencor 75DF). • Always refer to the respective product label(s) for rates ot applications, directions for use, limitations, and restrictions. • Refer fo the section "Use Information tor Chemical Fallow".
CHEMICAL FALLOW Wheat-Fallow-Wheat Rotations (Spring applied: seeded 3-5 months later)	Broadcast	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2 pts. Weeds 6": 2-2.7 pts.	Ground: 5 gals. Air: 5 gals.	—	• Do not make more than 3 applicafions per year. • To conserve moisture, application should be made March 1 to April t5, prior to spring rains. • Even though moisture loss is greater when applications are made after the boot stage, volunteer wheat is easier to control after this stage. • For volunteer wheaf or downy brome control in spring, use at least 1.3 pts. of PARAQUAT CONCENTRATE per acre with a Photosynthetic Inhibitor Herbicide. • Refer to the section "Use Information for Chemical Fallow". • For burn down and residual control of grass and broadleaf weeds, fank mix with metribuzin, (Sencor 75DF/Lexone). • Always refer to the label for metribuzin (Sencor 75DF/Lexone) for rates of applications, directions for use, limitations, and restrictions.
CHEMICAL FALLDW Wheat-Annual Crop-Wheat Rotations (Fall applied in wheat stubble)	Broadcast	Weeds f-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2 pts. Weeds 6": 2-2.7 pts.	Ground: 5 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • For improved burndown and residual weed control, tank mix with Atrazine or Marksman. Always refer to the respective product label(s) for rates of applications, directions for use, limitations, and restrictions. • Make applications after wheat harvest and before weeds produce seed. • If grasses such as foxtails or barnyardgrass recover, respray betore seed production. • Applications made late August to November help control volunteer wheat and downy brome. • Refer to the section "Use Information for Chemical Fallow".
CHEMICAL FALLOW Wheaf-Annual Crop-Wheat Rotations (Spring applied prior to planting an annual crop)	Broadcast	Weeds f-3": 1.3-f.7 pts. Weeds 3-6": 1.7-2 pts. Weeds 6": 2-2.7 pts.	Ground: 5 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • For enhanced burndown and residual weed control, tank mix with Atrazine. Always refer to the respective product label(s) for Atrazine for rates of applications, directions for use, limitations, and restrictions. • For volunteer wheaf or downy brome control in spring, use at least 1.3 pts. of PARAQUAT CONCENTRATE per acre with a Photosynthetic Inhibitor Herbicide. • Refer to the section "Use Information for Chemical Fallow". • Refer to the Atrazine label for directions pertaining to soil pH and recropping intervals.

'Approved Annual Crops are grain sorghum, corn, wheat, or proso millet.

Crop	Weeds	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
CLOVER AND OTHER LEGUMES Including velvetbean, lespedeza, lupine, sainfoin, trefoil, vetch, crown vetch, and milk vetch. **Dormant Season** On established plantings: Region A – See table at end of Alfalfa section.	For desiccation of weeds, including London rocket, sowthistle, rescue brome, wild oats, chickweed, ryegrass, bluegrass, cheatgrass, dogtennel, tansymustard, henbit, downy brome, and other winter annuals, and suppression of perennial weeds. **California** • Use for desiccation of weeds including bluegrass, ryegrass, shepherdspurse, chickweed, tansy mustard, foxtail, sowthistle and groundsel.	Broadcast	1.3-2.1 pts.	Ground: 10 gals. Air: 5 gals.	60	• Do not make more than 1 application per year. • Applications should be made during late fall or winter months after the last cutting and before first spring cutting. • Do not apply if **regrowth** after grazing or cutting is more than 2". • Do not harvest within 60 days of application. • CAUTION: Stand and/or yield reductions may occur when applications are made to clover or other legumes that are not dormant, or have broken dormancy. Therefore, it may be necessary to replant. Burning will occur to green clover or other legumes' foliage present at the time of application. • Discoloration and temporary stunting will occur in clover or other legumes foliage present at the time of application. • If there is severe weed infestation, the total hay yield of first cutting may be reduced in clover or other legumes fields and is usually directly roportionate to the loss of weed weight.
On established plantings: Region B - See table at end of Alfalfa section.		Broadcast	0.7-1.3pts.	Ground: 10 gals. Air: 5 gals.	60	**In California:** • If ryegrass, shepherdspurse, sowthistle or groundsel are present, use higher rate.
On fall-seeded, newly established stands less than 1-year-old: Region A - See table at end of Alfalfa section.		Broadcast	0.7-1.3pts.	Ground: 10 gals. Air: 5 gals.	60	
On fall-seeded, newly established stands less than 1-year-old: Region B - See table at end of Alfalfa section.		Broadcast	0.5-0.8 pts.	Ground: 10 gals. Air: 5 gals.	60	

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
CORN FIELD CORN POPCORN SWEET CORN SEED CORN (Used alone)	Preplant or Preemergence Broadcast or Banded Over Row	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2 pts. Weeds 6": 2-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Includes field, fresh sweet, forage, fodder and popcorn. • To permit maximum weed and grass emergence, seedbeds should be formed as far ahead of planting and treatment as possible. • Seeding should be done with a minimum amount of soil disturbance. • Control will not occur when applications are made after weeds and grasses have emerged. However, crop plants emerged at time of application will be killed.
CORN Tank mixes for no-till/ reduced till	Preplant or Preemergence Broadcast or Banded Over Row	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2 pts. Weeds 6": 2-2.7 pts.	Ground: 10 gals. Air: 5 gals.*	—	• Do not make more than 3 applications per year. • Applications should be made as broadcast sprays before, during or after planting, but before crop emergence. • PARAQUAT CONCENTRATE may be tank mixed with the following herbicides for improved burndown or residual control: 2,4-D Ester (Low Volatile) Harness® Harness® Xtra AAtrex®/Atrazine Lasso® Herbicide Banvel® Linex® Bicep MAGNUM® Lorox® Bicep Lite II MAGNUM® Princep® Dual MAGNUM Prowl® Herbicide Frontier® Simazine® Guardsman® Surpass® EC Harmony® Extra Herbicide Surpass® 100 (Preplant only) Topnotch® • PARAQUAT CONCENTRATE may also be tank mixed with Ambush® insecticide. • Always refer to respective product label(s) for rates of applications, directions for use, limitations, and restrictions. * Always refer to respective product label(s) to confirm if these products can be applied by air.
FIELD CORN, POPCORN, SWEET CORN, SEED CORN	Postemergence Directed Spray (including Hooded or Shielded)	0.7-1.3 pts.	Ground: 10 gals.	—	• Do not make more than 3 applications per year. • Applications should be made when weeds are actively growing. • Use a higher rate on larger or hard to control weeds. Weeds 6" or taller may not be controlled. • Severe damage and/or complete kill can occur if spray contacts corn plants **For Hooded Or Shielded Sprayers:** • Use a hooded or shielded sprayer with skids or wheels on the spray boom to maintain spray height in order to prevent excessive crop phytotoxicity. • Apply by directing spray between the rows and using hooded or shielded sprayers to prevent spray contact with crop plants. **For Directed Spray Without Hooded Or Shielded Sprayers:** Corn height is measure from soil surface to top of whorl. • Apply when corn is at least 10" tall with nozzles arranged to spray no higher than the lower 3" of corn stalks. • Corn plants shorter than 10" may be injured and not recover. • For corn more than 20" tall: Arrange the nozzles to spray no higher than the lower 1/3 of the corn stalks. • Injury to corn foliage will occur if sprayed. However, corn will recover and develop normally.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
FIELD CORN, POPCORN, SEED CORN	Harvest Aid Broadcast	0.8-1.3 pts.	Ground: 20 gals. Air: 5 gals.	7	• Do not make more than one application per year. Make ONE (1) application at least 7 days prior to harvest. • Apply after the corn is mature. This is indicated by a black layer which forms at the base of the kernels. You may consult your local agricultural authority for help in identifying the black layer. • Add nonionic surfactant containing at least 75% surface active ingredient at 0.25% v/v. • To desiccate mature broadleaf weeds and grasses or broadleaf weeds and grasses that are taller than 18", use 1.3 pts. • Drought stressed plants, especially broadleaf weeds, can be difficult to kill, and desiccation may not be complete.
FIELD CORN ONLY (grain, fodder, forage)	Postemergence Directed Spray USDA Witchweed Eradication Program	1.3 pts.	Ground: 10 gals.	—	• Do not make more than 3 applications per year. • If regrowth occurs, initiate sprays in late June to early July and repeat in early August. • Follow application instructions in post-emergence directed spray section above.
FIELD CORN ONLY (grain, fodder, forage) 2,4-D Amine AE Tank Mix	Postemergence Directed Spray USDA Witchweed Eradication Program	5.4 fl. oz. +0.5 lb. 2,4-D Amine AE	Ground: 10 gals.	—	• Do not make more than 3 applications per year. • Apply as directed spray onto grassy weeds and witchweed before witchweed blooms. If regrowth occurs, reapply. • Follow application instructions in post-emergence directed spray section above. • Always refer to respective product label(s) for rates of applications, directions for use, limitations, and restrictions.
COTTON (Used alone)	Preplant or Preemergence	1.7-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Apply prior to, during or after planting, but before crop emergence. • For fallow bed treatment, beds should be preformed to permit maximum weed and grass emergence prior to treatment. • Seeding should be done with a minimum of soil disturbance.
COTTON (California only; Used alone)	Preplant	5.4-10.7 fl. oz.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • For control of volunteer barley in preformed seedbeds.
COTTON Goal® Herbicide Tank Mix	Preplant or Fallow Bed Broadcast	1.7-2.7 pts.	Ground: or Air: 10 gals.	—	• Do not make more than 3 applications per year. • Always refer to the Goal label for weeds controlled, rates of applications, and directions for use, limitations, and restrictions.
COTTON Other Tank Mixes	Preplant or Preemergence	1.7-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Apply as a broadcast spray before, during or after planting, but before crop emergence. • For improved residual control or burndown, PARAQUAT CONCENTRATE may be tank mixed with the following herbicides: o Caparol® Herbicide o Cotoran® Herbicide o Cotton-Pro® Herbicide o Diurone® o Dual MAGNUM® o Harmony Extra (Preplant Only) o Meturon® Herbicide o MSMA o Prowl® o Zorial® Herbicide • When tank mixing with Cotoran DF® or Metvron DF®, follow mixing instructions carefully, maintain constant agitation, and see Order of Tank Mixing section in respective labels. • When tank mixing with any of the herbicides listed above, always refer to respective product label(s) for weeds controlled, rates of applications, directions for use, limitations, and restrictions.

COTTON Harvest Aid Use Restrictions

. Do not make more than 4 applications per year.

. Do not pasture livestock in treated fields or feed treated foliage.

. Do not apply to cotton within 3 days before harvest.

. Repeat application if necessary. Do not exceed a total of 1.3 pts./A as a harvest aid.

. May be tank mixed with other cotton harvest aid materials known to be effective by a local expert. Unless otherwise instructed in this label, always refer to the respective product label(s) for rates of applications, directions for use, limitations, and restrictions.

. • PARAQUAT CONCENTRATE can be applied in a tank mix with methyl parathion and/or Karate® insecticide. Always refer to the respective product label(s) for rates of applications, directions for use, limitations, and restrictions.

. Nodes above cracked bolls (NACB) timing is for guidance and is not intended to restrict the local expert in their use of the product.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
SOUTHERN COTTON Harvest aid for boll opening and defoliation (Tank mix with phosphate and chlorate defoliants).	Broadcast	5.4 fl. oz. + 1 pt. phosphate or 1 gal. chlorate	Ground: t0 gals. Air: 5 gals.	7	• Do not make more than 4 applications per year. • Development of immature bolls will be inhibited. • Apply when 80% or more of the bolls are open and the remaining bolls to be harvested are mature. • Always refer to tank mix product label(s) for rates of applications, directions for use, limitations, and restrictions.
SOUTHERN COTTON Additional tank mixes for boll opening and defoliation	Broadcast	2. t-3.3 fl. oz.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 4 applications per year. • PARAQUAT CONCENTRATE may be tank mixed with the following products to aid in defoliation and opening of mature bolls. Accelerate® Oefoliant Def® Oefoliant Dropp® Defoliant Ethephon Plant Growth Regulator Folex® Oefoliant Harvade® Harvest Growth Regulator Prep™ PGR • Apply when 60% or more of the bolls are open and the remaining bolls to be harvested are mature. • Development of immature bolls will be inhibited. • Always refer to tank mix product label(s) for rates of applications, directions for use, limitations, and restrictions.
SOUTHERN COTTON Post Defoliation - To aid in opening of mature bolls and to desiccate green weeds.	Broadcast	0.7-1.3 pts.	Ground: 10 gals. Air: 5 gals.	3	• Oo not make more than 4 applications per year. • It weed intestation is heavy or dense, use higher rate. • Apply when 75% or more of bolls are open and remaining bolls to be harvested are mature. • Development of immature bolls will be inhibited. • After a defoliation or conditioning application has been made, delay desiccation application of PARAQUAT CONCENTRATE approximately 3-7 days to minimize leaf sticking.
WESTERN COTTON Harvest aid for boll opening and early defoliation	Broadcast	3.7-5.4 fl. oz. + phosphate or sodium chlorate; andf or other compatible harvest aid products.	Ground: t0 gals. Air: 5 gals.	7	• Do not make more than 4 applications per year. • On rank cotton, use higher rate. • Do not use more than 5.4 fl. oz of PARAQUAT CONCENTRATE for early defoliation as excessive desiccation may occur. • Early defoliation timing is when 60% or more of the bolls are open and the remaining bolls to be harvested are mature (approximately 4 NACB). • Oevelopment of immature bolls will be inhibited. • Do not use more than 4.0 lbs. of actual sodium chlorate defoliant per acre at this early defoliation timing. • Always refer to tank mix product label(s) for rates of applications, directions for use, limitations, and restrictions.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
WESTERN COTTON Harvest aid for boll opening and mid-to-late defoliation	Broadcast	5.4-10.7 fl. oz. alone or tank mix with sodium chlorate or phosphate defoliation and/ or other compatible harvest aid products.		3 (Alone)	• Do not make more than 4 applications per year. • Use the 10.7 fl. oz. rate of PARAQUAT CONCENTRATE in desert cotton areas or on rank vigorous cotton. • Mid-to-late defoliation timing is when 75% or more of the bolls are open and remaining bolls to be harvested are mature (approximately 3 or fewer NACB). • Development of immature bolls will be inhibited. • Always refer to tank mix product label(s) for rates of applications, directions for use, limitations, and restrictions.
COTTON Stripper or Spindle Harvested Harvest aid for defoliation and boll opening.	Broadcast	2.1-7.5 fl. oz.	Ground: 10 gals. Air: 5 gals.	3	• Do not make more than 4 applications per year. • BECAUSE OF EXTREMES IN ENVIRONMENTAL AND PLANT CONDITIONS, IT IS ADVISABLE TO APPLY THE RANGE OF RATES ON A SMALL BLOCK OF COTTON TO DETERMINE THE RATE THAT BEST FITS YOUR NEEDS. • Apply when 75% of the bolls are open and the remaining bolls to be harvested are mature. • DEVELOPMENT OF IMMATURE BOLLS WILL BE INHIBITED, SLICE BOLLS AND INSPECT THE SEED FOR MATURITY. • PARAQUAT CONCENTRATE may be applied alone or tank mixed with the following cotton harvest aids: Accelerate Defoliant® Def Defoliant® Dropp Defoliant® Ethephone Plant Growth Regulator Folex Defoliant® Harvade® Harvest Growth Regulator Prep™ PGR • May be applied as a split application. Do not exceed a total of 1.3 pts./A. • To avoid leaf sticking, apply PARAQUAT CONCENTRATE as a desiccant approximately 3-7 days after defoliant or a conditioning application and 7-14 days before harvest. • Cooler temperatures may cause a longer waiting period between application of PARAQUAT CONCENTRATE as a desiccant and defoliation/ conditioner. • South of Interstate-10 in Texas, where temperatures are typically higher during defoliation, lower rates in the range may be necessary. • Always refer to tank mix product label(s) for rates of applications, directions for use, limitations, and restrictions.
COTTON Late season desiccation	Broadcast	0.7-1.3 pts.	Ground: 10 gals. Air: 5 gals.	3	• Do not make more than 4 applications per year. • BECAUSE OF EXTREMES IN ENVIRONMENTAL AND PLANT CONDITIONS, IT IS ADVISABLE TO APPLY THE RANGE OF RATES ON A SMALL BLOCK TO DETERMINE THE RATE THAT BEST FITS YOUR NEEDS. • May be applied as a split application. Do not exceed a total of 1.3 pts./A. • Apply when 85% of the bolls are open and the remaining bolls to be harvested are mature (approximately 0 NACB). • Development of immature bolls will be inhibited. Slice bolls and inspect the seed for maturity. • South of Interstate-10 in Texas, where temperatures are typically higher during defoliation, lower rates in the range may be necessary. • Delay desiccation application of PARAQUAT CONCENTRATE approximately 3-7 days to minimize leaf sticking if a defoliation or conditioning application has been made. • May be tank mixed with other harvest aid materials known to the local expert to be effective.
COTTON Desiccation of regrowth	Broadcast	0.75-1.25 pts.	Ground: 10 gals. Air: 5 gals.	3	• Do not make more than 4 applications per year. • Use to desiccate regrowth occurring after defoliation or desiccation. • Because regrowth is difficult to control, thorough coverage with the full listed rate is necessary. • Control is dependent on growing conditions and desiccation of small new regrowth may not always be complete. • If regrowth is excessive, use higher rate.
EASTER LILIES (Field grown)	Preemergence	1.7-2.7 pts.	Ground: 10 gals.	—	• Do not exceed two applications per year.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
FALLOW LAND Prior to planting of any crops.	Preplant Broadcast to Fallow Land	1.0-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 2 applications per year, during the fallow period. • Fallow land may be between operations such as disking, ripping, plowing, leveling, irrigating or listing for ground preparation purposes. • Use for the control of weeds such as bluegrass, chickweed, henbit, downy brome, ryegrass, cheatgrass, dog fennel, tansy mustard, London rocket, sowthistle, rescue brome, wild oats, volunteer cereals and other winter annuals and for suppression of perennial weeds or sedges. • For weeds approaching the maximum size of 6", the higher rate may be used. • No more than 2 applications should be made during the fallow period. • Prior to application allow maximum weed emergence to maximize the benefit of this use. • Adhere to the preharvest intervals and other crop specific restrictions for planted crops elsewhere on this label.
GRASSES (For seed) (For use in seedbed preparation)	Preplant, at Planting, or Preemergence	1.3-2.7 pts.	Ground: 10 gals.	—	• Do not make more than 3 applications per year. • Prepare the seedbeds and allow weeds to germinate. • Apply PARAQUAT CONCENTRATE when weeds are at the 3-5 leaf stage. • Applications may be repeated as necessary (but only up to 3 applications per year) prior to grass emergence. • Do not graze treated areas or use the seed or straw from treated areas for animal feed or bedding.
GUAR (Preharvest desiccation)	Preharvest	1.3 pts.	Ground: 10 gals.	4	• Do not make more than 3 applications per year. • Apply after the pods are fully mature. • Do not graze treated areas or use the treated forage for animal feed.
GUAVA	Directed Spray	2.5 pts.	Ground: 10 gals.	—	• Do not make more than 4 applications per year. • Do not allow spray to contact green stems, fruit or foliage. • Do not graze treated areas. • Do not feed cover crops grown in treated areas to livestock. • Retreatment or spot spraying may be necessary for mature woody weeds, late-germinating weeds and grasses, and perennials.
HOPS (ID, OR, & WA only)	Directed Spray and/ or Suckering and Stripping.	1.3 pts.	Ground: 10 gals.	14	• Do not make more than 3 applications per year. • Retreatment or spot treatment may be necessary. • Do not allow spray to contact green stems, foliage, flowers, or cones as injury may result. • Do not allow animals to graze in treated hopyards. • Silage and hop vine refuse may be fed to livestock. • Spray only the basal 2 ft. of the vines for sucking and stripping. Repeat as necessary, but only up to 3 applications per season. • Experience with varieties other than Cascade, Yakima Cluster, and Bullion is limited. If using PARAQUAT CONCENTRATE on other varieties than these, test the use pattern on a small number of vines of each variety to determine sensitivity to injury. Do not use on unlisted varieties if unacceptable crop injury occurs. • Chemical Pruning: Spray when vines are less than 3 ft. tall to burn back existing vines and obtain even emergence of subsequent vines. • APPLICATION TO HOP VINES LESS THAN 6 FT. TALL MAY CAUSE UNACCEPTABLE INJURY.
LENTILS NOT REGISTERED FOR USE ON LENTILS IN CALIFORNIA.	Harvest Aid	0.8-1.3 pts.	Ground: 20 gals. Air: 7 gals.	7	• Do not make more than 2 applications per year. • Add nonionic surfactant at 0.25% v/v (2 pts./100 gals.) of the finished spray volume. • May also be applied as a split application. DO NOT make more than 2 applications or exceed a total of 1.3 pts./A. The split application may improve coverage. • Apply when crop is mature and at least 80% of the pods are yellowing and mostly ripe with no more than 30% of the leaves still green in color. • DO NOT apply when weather conditions favor spray drift. To reduce spray drift a drift control agent may be included.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
MINT (Peppermint, Spearmint)	Dormant Season	1.3-2.0 pts.	Ground: 10 gals. Air 5 gals.	-	• Do not make more than 2 applications per year. • For suppression of weeds such as groundsel, chickweed, downy brome, bluegrass, Italian ryegrass, prickly lettuce. • Apply when crop is dormant before spring growth begins and when weeds are less than 6" tall. • Do not apply more than 2.0 pts./A per dormant season. • May be tank mixed with Sinbar® Herbicide (terbacil) weed killer for improved contact activity and residual control of Italian ryegrass, prickly lettuce and groundsel. Apply this tank mixture no more than once per season. Always refer to Sinbar (terbacil) label for weeds controlled, rates of applications, directions for use, limitations, and restrictions.
ONIONS (seeded) AND GARLIC	Preplant/ Preemergence	1.7-2.7 pts.	Ground: 10 gals.	60 200 (CA only)	• Do not make more than 1 application per year. • For heavy weed infestations or wild oat control use the higher rate. Apply only one application per season at the 2.7 pts./A dosage. • Allow maximum weed and grass emergence prior to treatment but apply prior to crop emergence. • Apply a maximum of 2.7 pts./A per season.
PASSION FRUIT	Directed Spray	2.5 pts.	Ground: 10 gals.		• Do not make more than 5 applications per year. • If bark is still green at application time, use a shield or wrap vine. • Pick all fruit off the ground prior to application if application is to be made during harvest season. • Do not allow animals to graze on treated areas. • It may be necessary to retreat or spot treat.
PEANUTS	Broadcast At Ground Crack Postemergence	5.4-10.8 fl. oz.	Ground: 10 gals.		• Do not make more than 2 applications per year. • To control or suppress small (1-6") emerged annual grass and broadleaf weeds in peanuts at ground crack. A second application may be made up to 28 days after ground crack. • For at ground crack use, PARAQUAT CONCENTRATE can be tank mixed with Pursuit® Herbicide or Dual MAGNUM for residual weed control. • Always refer to the Pursuit or Dual Magnum label for a list of weeds controlled, application rates, necessary precautions, and use limitations. • Make no more than 2 applications per season and do not apply a total of more than 10.8 fl. oz. of product per acre per season. • Crop foliage sprayed will be injured in the form of bronzing and crinkling, but the crop will recover and develop normally. • Do not apply by air.
PEANUTS Basagran®Herbicide Tank Mix	Broadcast At Ground Crack Postemergence	5.4-10.8 fl. oz.	Ground: 10 gals.	—	• Do not make more than 2 applications per year. • Tank mix PARAQUAT CONCENTRATE with Basagran at 1 pt./A. for improved control of weeds such as cocklebur, bristly starbur, smartweed and prickly sida. • This tank mix can be applied at the ground crack stage of peanuts. A second application may be made up to 28 days after ground crack. • Make no more than 2 applications per season and do not apply a total of more than 10.8 fl. oz. of product per acre per season. • Crop foliage sprayed will be injured in the form of bronzing and crinkling, but the crop will recover and develop normally. • Always refer to the Basagran label for weeds controlled, rates of applications, directions for use, limitations, and restrictions. • If peanuts show injury (leaf phytotoxicity and/or plant stunting) produced by any other herbicide treatment, do not apply this tank mix as injury may be enhanced and/or prolonged. • During prolonged periods of drought or unseasonably cold weather do not apply this tank mix as unsatisfactory weed control may result. • Do not apply by air.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
PEANUTS Butyrac® Herbicide or Butoxone® 200 Herbicide Tank Mix	Broadcast Postemergence	5.4-10.8 fl. oz.	Ground: 10 gals.	—	• Do not make more than 2 applications per year. • For improved control of weeds such as cocklebur, sicklepod and morningglory, tank mix PARAQUAT CONCENTRATE with 8-16 oz. (0.125-0.25 lbs.) per acre of Butyrac or Butoxone 200. • Do not apply a total of more than 10.8 fl. oz. of product per season and make no more than 2 applications per season • Crop foliage sprayed will be injured in the form of bronzing and crinkling but the crop will recover and develop normally. • Always refer to the Butyrac or Butoxone 200 labels for weeds controlled, rates of applications, directions for use, limitations, and restrictions. • Do not apply by air.
PIGEON PEAS (Puerto Rico only)	Directed Spray	1.3 pts.	Ground: 10 gals.	60	• Do not make more than 1 application per year. • Avoid contact with pigeon pea foliage. • Do not make more than 1 application per season. • Do not graze treated areas or feed treated forage to livestock. • Cannery waste can be fed to livestock.
PINEAPPLE	Directed Spray	1.3-2.7 pts.	Ground: 10 gals.	20	• Do not exceed 3 applications per season. • More mature weeds may require retreatment.
POTATO	Preplant or Preemergence Broadcast	0.7-1.3 pts.	Ground: 10 gals. Air: 5 gals.		• Do not make more than 3 applications per year. • Apply up to ground cracking stage, before potatoes have emerged.
POTATO (California, Washington, Oregon, Idaho only; used alone)	Preplant Broadcast	0.4-0.7 pts.	Ground: 10 gals. Air: 5 gals.		• Do not make more than 3 applications per year. • For control of volunteer barley in preformed seedbeds.
POTATO Fresh Market Only Preharvest vine killing and weed desiccation. For Use Only in the states of: Colorado, Delaware, Idaho, Illinois, Indiana, Kansas, Maine, Maryland, Massachusetts, Michigan, Minnesota, Nebraska, Nevada, New Jersey, New York, North Dakota, Ohio, Oregon, Pennsylvania, South Dakota, Utah, Washington, Wisconsin and Wyoming	Broadcast	0.7-1.3 pts.	Ground: 20 gals.	3	For **Fresh Market Potatoes Only.** (Fresh Market Potatoes include potatoes that are sent directly from the field to a consumer, grocery store, or processor for use.) • **DO NOT** make more than 2 applications per year. • **DO NOT** use on potatoes that will be stored as tuber decomposition may result. • Potatoes must be harvested promptly after desiccation and processed or consumed immediately. • **DO NOT** apply to drought stressed potato vines. • **DO NOT** use to desiccate the vines of seed potatoes as seed pieces may fail to germinate and grow normally. • **DO NOT** pasture livestock in treated potato fields. • **DO NOT** exceed 2.6 pts./A per season. • Begin application when leaves begin to turn yellow. • Immature potato foliage is tolerant to PARAQUAT CONCENTRATE. However, desiccation will not be complete under this condition. • Use 1.3 pts./A rate where quick vine kill is desired. • For dense vine growth, use 2 applications of 0.6 pt/ A. Split applications must be applied a minimum of five days apart.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
RICE	Preplant or Preemergence Broadcast	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2.0 pts. Weeds 6": 2-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Apply as a broadcast spray before, during or after planting, but before crop emergence. When vegetation is dense, use higher rates and spray volumes. • Seeding should be done with a minimum amount of soil disturbance. • This product will not control weeds and grasses emerging after application. Crop plants emerged at time of application will be killed. • PARAQUAT CONCENTRATE may be tank mixed with other herbicides registered for this use for improved or extended weed control. Always refer to the tank mix product label(s) for weeds controlled, rates of applications, directions for use, limitations, and restrictions. • Do not flood/flush within 48 hours of application in order to ensure complete kill of vegetation. If cool, cloudy and/or wet weather delays speed of kill, do not flood/flush until complete kill is evident.
SAFFLOWER	Preplant or Preemergence Broadcast or Banded Over Row	1.7-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Apply before, during and after planting but before crop emergence.
SAFFLOWER (California only)	Preplant Broadcast	0.7 pt.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • For control of volunteer barley in preformed seedbeds.
SMALL GRAINS (Barley, wheat)	Preplant or Preemergence	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2 pts. Weeds 6": 2-2.7 pts.	Ground: 5 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year.
SMALL GRAINS (Wheat Only) Hoelon® 3EC Tank Mix	Preplant or Preemergence	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2 pts. Weeds 6": 2-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • A tank mix with Hoelon 3EC will improve grass control. • Apply when weeds are actively growing and 1-6" in height. Weeds 6 inches or taller may not be controlled. • Do not apply this tank mix to barley as crop injury may result. • Always refer to the Hoelon 3EC label for weeds controlled, rates of applications, directions for use, limitations, and restrictions.
SORGHUM (Grain)	Preplant/ Preemergence Broadcast or Band	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2 pts. Weeds 6": 2-2.7 pts.	Ground: 10 gals. Air: 5 gals.	48 (grain) 20 (forage)	• Do not make more than 3 applications per year. • To allow maximum weed and grass emergence, seedbeds should be formed as far ahead of planting as possible • Seeding should be done with a minimum amount of soil disturbance.
SORGHUM (Grain) Atrazine & 2,4-D ester (Low Volatile) Tank Mix	Preplant or Preemergence	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2 pts. Weeds 6": 2-2.7 pts.		48 (grain) 20 (forage)	• Do not make more than 3 applications per year. • PARAQUAT CONCENTRATE may be tank mixed with Atrazine for improved preemergence or residual weed control. The addition of 2,4-D ester (Low Volatile) may assist in the suppression of perennial and annual broadleaf weeds emerged at the time of application. Always refer to the specific product label(s) for weeds controlled, rates of applications, directions for use, limitations, and restrictions.
SORGHUM (Grain) Harmony® Extra Herbicide Tank Mix	Preplant	1.3-2.5 pts.	Ground: 10 gals.	48 (grain) 20 (forage)	• Do not make more than 3 applications per year. • For improved weed control, PARAQUAT CONCENTRATE may be tank mixed with Harmony Extra. • Always refer to the Harmony Extra label for weeds controlled, rates of applications, directions for use, limitations, and restrictions.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
SORGHUM (Grain)	Postemergence Directed (Including Hooded or Shielded)	0.7-1.3 pts.	Ground: 10 gals.	48 (grain) 20 (forage)	• Do not make more than 2 applications per year. • Apply when weeds are actively growing. • Use higher rate on larger or hard to control weeds. Weeds 6" or taller may not be controlled. • Severe damage and/or complete kill can occur if spray contacts sorghum plants. • Do not exceed 2 postemergence-directed applications or exceed a total of 5.3 pts. PARAQUAT CONCENTRATE per season. **HOODED OR SHIELDED SPRAYERS** • To avoid excessive crop phytotoxicity, use a hooded or shielded sprayer with skids or wheels on the spray boom to maintain spray height. • Apply by directing spray between the rows and by using hooded or shielded sprayers to prevent spray contact with crop plants. **DIRECTED SPRAY WITHOUT HOODED OR SHIELDED SPRAYERS** • Apply when sorghum is at least 12" tall when naturally standing. • Do not exceed 30 psi nozzle pressure or spray under conditions which may cause excessive drift. • Use precision directed-spray application equipment adjusted so that no more than the lower 3" of the sorghum stalk is contacted by the application spray. • Some crop injury will occur. The degree of injury is related to the precision of application and spraying conditions.
SOYBEANS	Preplant or Preemergence	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2 pts. Weeds 6": 2-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Do not exceed a total of 4.0 pts. of PARAQUAT CONCENTRATE per season. • Apply as a broadcast spray before, during or after planting, but before crop emergence. • PARAQUAT CONCENTRATE may be tank mixed with the following herbicides for improved burndown or residual control: 2,4-DB Canopy Dual MAGNUM Goal Harmony Extra (Preplant Only) Lasso Lexone Linex Lorox Lorox Plus Prowl Pursuit Herbicide Scepter Herbicide Sencor Herbicide Surflan® Herbicide Turbo Herbicide • The rate of this product to be used in these tank mixtures is dependent on weed height and growing conditions. Where weed canopy is dense or under dry conditions, use the highest rate of PARAQUAT CONCENTRATE. Always refer to the respective product label(s) for a list of weeds controlled, rates of applications, directions for use, limitations, and restrictions. • The lower application rate may be used when weeds are less than 4" tall and a selective postemergence spray or cultivation will be made within 3 weeds after planting. • Seeding should be done with a minimum amount of soil disturbance. • Do not graze or harvest for forage or hay before the R3 stage of soybean development (early pod).
SOYBEANS 2,4-D ester (Low Volatile) Tank Mix	Preplant or Preemergence	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2 pts. Weeds 6": 2-2.7 pts.	Ground: 10 gals. Air: 5 gals.		• Do not make more than 3 applications per year. • Apply 2,4-D ester (Low Volatile) at 0.35-0.475 lbs. a.i./A at least 7 days prior to planting. • Apply 2,4-D ester (Low Volatile) at 0.475-0.95 lbs. a.i/A at least 30 days prior to planting. • Do not apply 2,4-D ester (Low Volatile) prior to planting soybeans if you are not able to accept the results of soybean injury including possible loss of stand and yield. • Do not use amine formulation as PARAQUAT CONCENTRATE activity may be reduced. • May be tank mixed with residual herbicides listed above. • Always refer to the 2,4-D ester (Low Volatile) label for weeds controlled, rates of application, directions for use, limitations, and restrictions.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
SOYBEANS	Postemergence Directed Spray (Includes Hooded or Shielded)	3.0-5.3 fl. oz.	Ground: 10 gals.	—	• Do not make more than 3 applications per year. • Apply when weeds are actively growing. • Use the lower rate of PARAQUAT CONCENTRATE for control of seedling johnsongrass, crabgrass, goosegrass, Brachiaria, Texas millet and pigweed less than 2" tall. • For control of 2-4" red rice, Brachiaria, barnyard grass, crabgrass, goosegrass, seedling johnsongrass, giant foxtail, and fall panicum, use 5.3 fl. oz. of PARAQUAT CONCENTRATE. • Use 5.3 fl. oz. of PARAQUAT CONCENTRATE for control of 2-3" sicklepod, purslane, pigweed, cutleaf ground cherry, and common ragweed. • Apply PARAQUAT CONCENTRATE at 5.3 fl. oz./A plus 0.2 lb. active ingredient per acre of a 2,4-D formulation for control of 2-4" grasses in mixture with common cocklebur, morningglory, and red rice. • Always refer to the 2,4-D label for weeds controlled, rates of applications, directions for use, limitations, and restrictions • Do not graze or harvest for forage or hay. • If necessary, make a second and final application 7-14 days later. **HOODED OR SHIELDED SPRAYERS** • Apply by directing spray between the rows and using hooded or shielded sprayers to prevent spray contact with crop plants. • Use higher rate on larger (less than 6") or hard to control weeds. Weeds 6" or taller may not be controlled. • Severe damage and/or complete kill can occur if spray intentionally or accidentally (including drift of fine droplets) contacts the plants. **DIRECTED SPRAY WITHOUT HOODED OR SHIELDED SPRAYERS** • Do not treat on soybeans that are less than 8" tall. • Use precision directed spray application equipment adjusted so that no more than the lower 3" of the soybean plant is contacted by the application spray. • Do not exceed 30 psi nozzle pressure or spray under conditions which may cause excessive drift. • Some crop injury will occur. The degree of injury is dependent upon the precision of application and spraying conditions.
SOYBEANS	Harvest Aid	5.4-10.7 fl. oz.	Ground: 20 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Indeterminant varieties: Applications should be made when at least 65% of the seed pods have reached a mature brown color or when seed moisture is 30% or less. Determinant varieties: Apply when plants are mature, i.e., beans are fully developed, 1/2 of leaves have dropped, and remaining leaves are yellowing. • Injury will occur on immature soybeans. • Mature cocklebur, especially drought-stressed plants, are tolerant to PARAQUAT CONCENTRATE and desiccation will not be complete. Always use the higher rate when treating cocklebur. • Do not apply within 15 days of harvest. • Do not graze or harvest for forage or hay.
STRAWBERRIES	Postemergence Directed Spray	1.3 pts.	Ground: 20 gals.	21	• Do not make more than 3 applications per year. • Direct spray between the rows, using shields to prevent spray contact with crop plants. • Do not allow spray to contact strawberry plants as injury or excessive residues may result. • Do not apply more than 3 times per season. • Do not graze livestock in treated areas.
SUGAR BEETS	Preplant or Preemergence	1.3-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • For heavier weed infestations, use the higher label rate. • Seeding or transplanting should be done with a minimum amount of soil disturbance. • Crop plants emerged at time of application will be killed. • Can be used in fallow bed/stale seedbed for weed control. • Seedbeds or plantbeds should be formed as far ahead of treatment as possible to permit maximum weed emergence.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
SUGARCANE	Postemergence Directed Spray (includes Hooded or Shielded)			—	Use Comments • Do not make more than 2 applications per year, except applications made by air in Florida and Texas in which the maximum number of applications allowed is 1 per year. • Apply as a hooded, shielded or directed spray to avoid contact with cane foliage to prevent leaf burn and yield reduction. • If necessary, a second and final application can be made when new weed growth is 2-6" high. • Do not graze treated areas or feed treated forage to livestock.
—Florida—		1.3 pts.	Ground: 50 gals.	—	• Do not make more than 2 applications per year. • Optimum results can be obtained by applying in early spring (March-April) when weeds are small. • Do not apply after June 1 as cane growth may be stunted and yields reduced.
—Hawaii—		1.3 pts.	Ground: 20 gals.	—	• Do not make more than 2 applications per year. • Do not apply after cane rows have closed in.
—Louisiana—		0.7-2.0 pts.	Ground: 20 gals.	30	• Do not make more than 2 applications per year. • For tiller control, apply when tillers are less than 18" high. • For heavier weed infestations or tiller growth use the higher rate.
—Florida & Texas—	Harvest Aid	0.4-0.7 pts.	Air: 5 gals.	—	• Do not make more than 1 application per year. • Under cool, cloudy weather conditions use higher rate. • Apply 3-14 days before burning and harvest.
SUNFLOWER	Preplant or Preemergence Broadcast or Banded Over Row	1.7-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Apply before, during, or after planting but before crop emergence.
SUNFLOWER	Preharvest Desiccation Broadcast	0.8-1.3 pts.	Ground: 10 gals. Air: 5 gals.	7	• Do not make more than 2 applications per year. • Apply when sunflower seeds reach physiological maturity (when seed moisture is 35% or lower). For many varieties, this is equivalent to the time when the back of the heads are yellow and the bracts are turning brown. • Do not graze treated areas or feed treated forage to livestock. • When crop stands or weed infestations are heavy, use the higher label rate.
TARO, DRYLAND (Hawaii Only)	Postemergence Directed Spray	1.3-2.1 pts.	Ground: 10 gals.	180	• Do not make more than 2 applications per year. • Do not allow spray to contact the taro plants as injury may result. • Make the first application when weed growth is 1-4" high. • Weeds emerging after the application will not be controlled. • A single re-treatment may be made; however, do not harvest dryland taro within 6 months of the last application.
TREE PLANTATION ESTABLISHMENT Deciduous and Conifers	Preplant Broadcast	1.3-2.7 pts.	Ground: 20 gals.	—	• Do not make more than 3 applications per year. • To allow maximum emergence of weeds prepare ground early. Apply prior to planting. Plant with minimal soil disturbance. • For heavier weed infestations, use the higher application rate. • For improved burndown or residual control, tank mix PARAQUAT CONCENTRATE with other herbicides labeled for this use. • Always refer to the specific tank mix herbicide label(s) for weeds controlled, rates of applications, directions for use, limitations, and restrictions. • Do not apply in less than 20 gals./A as weed control will be reduced.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
TREES AND VINES Orchards Vineyards Windbreak, Shade & Ornamental Trees: Acerola Apples Apricots Avocados Bananas Beechnut Brazil nut Butternut Calamondin Cashew Cherries Chestnut Chinquapin Citrus citron Coffee Figs Filberts Grapefruit Grapes Hickory nut Kiwi fruit Kumquat Lemon Lime Macadamia nuts Mandarin Nectarines Olives Orange (sour & sweet) Papayas Peaches Pears Pistachios Plums Prunes Pummelo Satsuma mandarin Walnuts Other shade and ornamental trees such as arborvitae, ash, elm, fir, oak, pine, etc.	Directed Spray	1.7- 2.7 pts.	Ground: 10 gals.	Apricots 28 Cherries 28 Figs 13 Kiwi Fruit 14 Nectarines 28 Olives 13 Peaches 14 Pistachios 7 Plums 28	• Do not make more than 5 applications per year, except for: Apricots, Cherries, Kiwi Fruit, Nectarines, Peaches, Plums, no more than 3 applications per year; Olives, no more than 4 applications and Pistachios, no more than 5 applications but only 2 applications after shells split. • Do not allow spray to make contact with green stems (except suckers), fruit or foliage. • Use the shield or wrap plant when spraying around young trees or vines. • Do not graze treated areas. • Do not feed covered crops grown in treated areas to livestock. • Do not apply when figs, nuts or olives to be harvested are on the ground. • **For apricots** - Do not harvest within 28 days after application and do not exceed 3 postemergence directed applications per season. • **For cherries** - Do not harvest within 28 days after application and do not exceed 3 postemergence directed applications per season. • **For figs** - Do not harvest within 13 days after application and do not exceed 5 postemergence directed applications per season. • **For grapes** - Treat when sucker growth is no more than 8" long. Late season applications to weeds should be made to avoid contact with desirable foliage. • **For kiwi fruit** - Do not treat more than 3 times per year. • For mature woody weeds, perennial weeds, late germinating weeds and green suckers, retreatment or spot treatment may be necessary. • **For nectarines** - Do not harvest within 28 days after application and do not exceed 3 postemergence directed applications per season. • **For olives** - Do not harvest within 13 days after application and do not exceed 4 postemergence directed applications per season. • **For peaches** - Do not harvest within 14 days after application, and do not exceed 3 postemergence directed applications per season. • **For pistachios** - Do not exceed 2 applications after shells split. • **For plums** - Do not harvest within 28 days after application and do not exceed 3 postemergence directed applications per season.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
TREES AND VINES Tank Mixes	Directed Spray	1.7-2.7 pts.	Ground: 10 gals.	Always refer to other Tank Mix labels	• Do not make more than 5 applications per year, except for: Apricots, Cherries, Kiwi Fruit, Nectarines, Peaches, Plums, no more than 3 applications per year; Olives, no more than 4 applications and Pistachios, no more than 5 applications but only 2 applications after shells split. • This product may be tank mixed with registered residual herbicides listed below for combined emerged and residual weed control. PARAQUAT CONCENTRATE may be tank mixed with the following herbicides: Devrinol® Herbicide Goal® Karmex® Krovar® Herbicides Princep® Sinbar® Solicam® Herbicide Surflan® • Always refer to other herbicide labels for weeds controlled, rates of applications, directions for use, limitations, and restrictions.
TYFON (New Hampshire only)	Preplant Preemergence	1.7-2.7 pts.	Ground: 10 gals.	—	• Do not make more than 3 applications per year. • Seeding should be done with a minimum of soil disturbance. • Weeds and grasses emerging after treatment will not be controlled. • Crop plants emerged at time of application will be injured.
VEGETABLES (Seeded or Transplanted) Beans (Lima, Snap) Broccoli Cabbage Cantaloupe Carrots Cauliflower Chayote fruit Chinese cabbage Chinese waxgourd Citron melon Collards Cucumber Eggplant Gherkin Gourd, Edible Groundcherry Lettuce Momordica spp. Musk melons Peas Pepino Peppers Pumpkin Squash Sweet Corn Tomatillo Turnips Tomatoes Watermelons	Preplant Preemergence	1.3-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Seedbeds or plantbeds should be formed as far ahead of treatment as possible to permit maximum weed emergence. • Banded or broadcast treatment applications can be made before, during or after planting but prior to the crop emergence. • For heavier weed infestations, use the higher rate. • Seeding or transplanting should be done with a minimum amount of soil disturbance. • Crop plants emerged at time of application will be killed. • PARAQUAT CONCENTRATE can be used in fallow bed/slate seedbed for weed control alone or tank mixed with Goal®. Always refer to the Goal label for weeds controlled, rates of applications, directions for use, limitations, and restrictions. • Do not harvest tomatoes within 30 days after application.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
VEGETABLES Eggplant Peppers Tomatoes	Directed Spray	1.3 pts.	Ground: 10 gals.	—	• Do not make more than 3 applications per year. • For control or suppression of emerged weeds between rows after crop establishment. • Use precision directed spray application equipment adjusted to prevent spray contact with crop plants. Do not exceed 30 psi nozzle pressure. Do not spray under conditions which may cause excessive drift. • Apply when weeds are succulent and weed growth is less than 6". • Do not apply more than 3 applications per season. • Do not allow animals to graze in treated areas. • Do not harvest tomatoes within 30 days after application.
VEGETABLES Tomatoes	After Final Harvest	1.6-2.5 pts.	Ground: 40-120 gals.	—	• Do not make more than 2 applications per year. • Apply in 40-120 gallons of water per acre (0.62-0.93 lb. a.i./A). • Add NIS containing 75% or more surface active agent at 0.125 v/v (1 pt./100 gals. spray solution). • To ensure maximum herbicide burndown, tomato vines should be thoroughly covered. • PARAQUAT CONCENTRATE may be deactivated and less efficacious when dirty or muddy water is used. • To aid in the removal of sweet potato whitefly, burn tomato vines with propane burners as soon as possible after the vines have dried down sufficiently. • DO NOT apply more than a total of 3 lbs. active ingredient (paraquat) per acre per season. • To minimize drift, do not use nozzles or nozzle configurations which produce fine spray droplets (mist).
VEGETABLES (California, Washington, Oregon, Idaho only) Lettuce Melon Sugar Beets Tomatoes	Broadcast	0.4-0.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 2 applications per year. • For control of volunteer barley in preformed seedbeds. • Do not harvest tomatoes within 30 days after application.
VEGETABLES Rhubarb	Dormant	1.7-2.7 pts.	Ground: 10 gals.	—	• Do not exceed 2 applications per year. • Apply during dormant season before buds in crown begin to grow.

RESIN SOAKING

Pines including Loblolly, Shortleaf, Longleaf, Slash, Virginia, Pond, Pitch, and Spruce Pines.

Tree Selection -Trees should be selected from stands on sites not subject to stress from periods of extreme drought stress because the desiccating effect of PARAQUAT CONCENTRATE is accentuated during drought, causing a reduction in the amount of oleoresin deposited in the xylem. Vigorous, non-stagnated natural or planted stands should be selected. Plan PARAQUAT CONCENTRATE treatments in stagnated or commercial timber stands, not sooner than three years after a commercial thinning.

Application Directions: To bring the treatment into contact with sapwood (or xylem), apply water-diluted PARAQUAT CONCENTRATE to an appropriate wound in the tree trunk.

Bark Streaks or **Cuts:** Use a standard or rotary bark hack or a chainsaw shipping tool (used in naval stores work) to remove a single 1-inch wide streak of bark about 1-2 ft. from ground level. Do not exceed 1/3 of the circumference of the tree. Serious girdling of the trunk and premature death of the tree can result if multiple streaks or cuts are made. Apply a coarse spray (about 1.7-5.0 ml) PARAQUAT CONCENTRATE solution (1-5% cation, wt./wt. basis) to runoff to the exposed xylem, using a low-pressure sprayer. The amount of spray required per cut depends on tree circumference and the length of cut or streak. For example, for a 9-inch diameter tree, using 3 ml of 2 or 4% PARAQUAT CONCENTRATE solution will cover the 1-inch wide streak and will result in application of 60 or 120 mg per streak.

Time of Treatment: Less severe pine beetle infestation and longer tree life usually result during cool season treatments under non-drought seasons. However, resin soaking can occur from treatments made any time of the year.

Interval between Treatment and Tree Harvest: There should be at least a 6-month interval between application of PARAQUAT CONCENTRATE and tree harvest. However it is preferable the interval is from 12-24 months, even though intervals of over 6 months may not be possible under conditions of drought or serious pine beetle attacks possibly making early harvest necessary.

With this treatment, there is a potential for promoting beetle attack or causing premature death of the tree. At high dosage rates, desiccation of the xylem tissue, rather than the desired resin soaking, may occur.

Note: This type of treatment may reduce stem growth during between treatment and tree harvest.

Dilution Table for PARAQUAT CONCENTRATE (3.0 lbs. cation per gallon)	
Concentration of Cation Desired (wt./wt. basis)	Add the Following No. Gal. of Water to 2/3 Gallon of PARAQUAT CONCENTRATE
0.2%	118.8
0.5%	46.8
1.0%	22.9
2.0%	10.9
3.0%	6.9
4.0%	4.9
5.0%	3.7

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
CONSERVATION RESERVE, FEDERAL SET-ASIDE, CONSERVATION COMPLIANCE PROGRAMS (For use in compliance with the Federal Conservation Reserve Program or Federal set-aside programs)	Broadcast	1.7-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • PARAQUAT CONCENTRATE may be tank mixed with other herbicides registered for this use for improved emerged weed control or extended weed control. Always refer to tank mix herbicide labels for weeds controlled, rates of applications, directions for use, limitations, and restrictions.
NONCROP USES	Broadcast or Spot Treatment	1.7- 2.7 pts.	Ground: 10 gals.	—	• Repeat applications as necessary but do not make more than 10 applications per year. • To be used in noncrop areas including public airports, electric transformer stations, pipeline pumping stations, around commercial buildings, storage yards and other installations, and fence lines . • Avoid spray contact with the foliage of ornamentals or desired plants.
PASTURE RESEEDING For suppression of existing sod and undesirable emerged broadleaf weeds and grasses prior to or at time of planting grasses or forage legumes	Broadcast	0.7-1.3 pts.	Ground: 10 gals. Air: 5 gals.	See specific geographic recommendation	• Do not make more than 3 applications per year. **West of Cascade and Sierra Nevada Mountains** • Apply in October through December after first fall rains and after weeds have emerged and sod has started new growth. • Apply on moderately to heavily grazed areas for best seeding results. • Do not use in heavy sod and weed growth areas. **East of Rocky Mountains** • Use the 1.3 pts rate on vigorous or coarse sod species such as bromegrass. • Apply prior to, or at time of seeding grasses or forage legumes. • Apply only to grazed or mowed pastures not more than 3" in height at time of treatment. **Bermudagrass or Bahiagrass Sods** • Apply in late summer or early fall to sod not exceeding 3" in height. • For control of emerged little barley, apply in February or March before the mid-boot stage of little barley. **Bermudagrass and Coastal Bermudagrass Pastures** • Apply when bermudagrass is dormant. • For control of little barley, apply before the mid-boot stage. • Do not mow for hay until 40 days after treatment.
For control of endophyte-fungus-infected fescue forage legume/grass mixture and other grass pastures	Broadcast (Split Application)	0.7-1.3 pts. followed by 0.7-1.3 pts.	Ground: 10 gals.	—	• Do not make more than 2 applications per year. • Use split applications of 10-21 days apart if necessary. • Do not exceed 2.6 pts./A total in preparation for reseeding. • For spring plantings, the initial application of 0.7-1.3 pts. may be made the previous fall. • Apply when fescue is actively growing and no more than 4" high. • To reduce the infestation of endophyte-infested grass, do not allow fescue to go to seed starting with the preceding year's crop.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
*For prickly pear desiccation in pastures. *Not for use in California	Spot Sprays	0.8 fl. oz. per gallon of water	Spray to wet weed foliage	—	• Do not make more than 10 applications per year. • Hand-held equipment such as knapsacks backpack sprayers, pump-up pressure sprayers, hand-guns, and hand-wands, can be used to direct the spray onto weed foliage so that the spray thoroughly wets foliage. • Mix 0.8 fl. oz. of PARAQUAT CONCENTRATE and 1/3 fl. oz. of a nonionic surfactant per gallon of water. • Completely and uniformly cover all green prickly pear foliage with spray. • Apply in May through September for best desiccation results. • Do not use more than 1.6 pts. of PARAQUAT CONCENTRATE per acre per year. • Apply only to pastures with no more than 3" of height at time of treatment. • Tank mix with Grazon® P+D Specialty® herbicide at a rate of 1-2 fl. oz. per gallon of water for improved desiccation and perennial control of prickly pear. • Always refer to the Grazon P+D Specialty herbicide label for weeds controlled, rates of applications, directions for use, limitations, and restrictions.
*For Juniper Species leaf moisture reduction or desiccation prior to Prescribed burning of pastures. *Not for use in California	Broadcast	1.3 pts.	Air: 5 gals.	—	• Do not make more than 10 applications per year. • Use only in conjunction with prescribed burning as recommended and monitored by local SCS or University and Extension Range Specialists. • Apply during hot, dry weather conditions (generally July and August). • Use 2% v/v nonionic surfactant in a minimum of 5 gal spray solution. • Monitor juniper leaf moisture content. Maximum leaf moisture reduction generally occurs 3-4 weeks after PARAQUAT CONCENTRATE application. • Significant soil moisture and/or wet weather conditions prior to or after application will decrease the potential for juniper crown burns. • Reduction in leaf moisture can be adversely affected by cool or humid weather conditions.. • Do not graze livestock after application or prior to burning.
*Native Pastures *Not for use in California	Broadcast	1.0-1.25 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 2 applications per year. • Apply PARAQUAT CONCENTRATE for control of downy and Japanese brome. • Apply in spring after 90% node formation of brome species, but before full bloom. • Emerged native perennial grasses will be burned by application, but application after 90% node formation will allow adequate time for native grasses to recover and attain maximum growth in the use season. • Do not apply more than 1.25 pts. PARAQUAT CONCENTRATE per year. • Apply only to pastures with no more than 3" of height at time of treatment.

Conversion Table PARAQUAT CONCENTRATE to Be Applied			
Ounces	Pints	Lb. a.i.	Acres/Gallon
2.5	0.16	0.06	51.3
4.8	0.30	0.11	26.7
5.28	0.33	0.12	24.2
5.52	0.35	0.13	23.2
10.00	0.63	0.23	12.8
11.00	0.69	0.26	11.6
11.20	0.70	0.26	11.4
12.00	0.75	0.28	10.7
16.00	1.00	0.38	8.0
20.00	1.25	0.47	6.4
20.80	1.30	0.49	6.2
24.00	1.50	0.56	5.3
28.00	1.75	0.66	4.6
32.00	2.00	0.75	4.0
40.00	2.50	0.94	3.2
43.20	2.70	1.00	3.0

STORAGE AND DISPOSAL

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

Pesticide Storage: Store in original container and place in a locked storage area. Do not mix or store in containers, spray tanks, nurse tanks, or such systems made of aluminum or having aluminum fittings. Store at temperatures above 32°F. For Emergencies involving a Spill, Leak, Fire, Exposure, or Accident, contact: CHEMTREC at (800) 424-9300.

Pesticide Disposal: Pesticide wastes are acutely hazardous. Improper disposal of excess, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container Disposal:
Plastic containers of 5 gallons or less: Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available.

Triple rinse or pressure rinse (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. 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.

Mini-bulk Containers: Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller.

To clean the container before final disposal, empty the remaining contents from this container into application equipment or 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.

WARRANTY STATEMENT IMPORTANT NOTICE - Seller warrants that this product conforms to the chemical description and is reasonably fit for purposes stated on the label when used in accordance with the directions and instructions under normal conditions of use; **but neither this warranty nor any other warranty of merchantability or fitness for a particular purpose, express or implied, extends to the use contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to seller, and to the extent consistent with applicable law, buyer assumes the risk of any such use.**

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SOURCE DYNAMICS

February 18, 2010

Document Processing Desk
Office of Pesticide Programs (P7504C)
Environmental Protection Agency
Room S-4900, One Potomac Yard (South Building)
2777 S. Crystal Drive
Arlington, VA 22202

Attn: James Tompkins (PM 25), Herbicide Branch, Registration Division (7505P)

Dear Mr. Tompkins:

Subject: Paraquat Concentrate: EPA Reg. No. 82542-3: Final Label

Thank you for your Notice of Pesticide Registration of February 16, 2010. Please find enclosed a copy of the final label and Form 8570-1.

Sincerely,

Rufus Bastian, President
Source Dynamics LLC
rbastian@solerasd.com

10039 E. Troon North Drive
Scottsdale, AZ 85262

Tel. 480.502.9289

Fax 480.502.9268

Print Form

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

EPA

United States
Environmental Protection Agency
Washington, DC 20460

[ ] Registration
[ ] Amendment
[X] Other

OPP Identifier Number

Application for Pesticide - Section I

1. Company/Product Number 82542-3	2. EPA Product Manager J. Tompkins	3. Proposed Classification [ ] None [X] Restricted
4. Company/Product (Name) Dynaquat	PM# 25	
5. Name and Address of Applicant *(Include ZIP Code)* Source Dynamics LLC 10039 E. Troon North Drive Scottsdale, AZ 85262 [ ] *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.
[X] Final printed labels in repsonse to Agency letter dated 02/16/2010
[ ] "Me Too" Application.
[ ] Other - Explain below.

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

Submission of final printed label.

Section - III

1. Material This Product Will Be Packaged In:

Child-Resistant Packaging	Unit Packaging	Water Soluble Packaging	2. Type of Container
[ ] Yes [X] No	[ ] Yes [X] No	[ ] Yes [X] No	[ ] Metal [X] 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 [X] Container	2.5 gal., bulk	[ ] On Label [X] On Labeling accompaning product

6. Manner in Which Label is Affixed to Product [ ] Lithograph [ ] Paper glued [ ] Stenciled [X] Other plastic sleeve

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)
Rufus Bastian	President	480-502-9289

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
Rufus Bastian	President
4. Typed Name	**5. Date**
Rufus Bastian	February 18, 2010

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

FEB 16 2010

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

Mr. Rufus Bastian
Source Dynamics
10039 E. Troon North Drive
Scottsdale, AZ 85262

Subject: Paraquat Concentrate
EPA Registration Number 82542-3
Application dated January 28, 2010

Dear Mr. Bastian:

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act as amended is acceptable, provided you make the following changes before you release the product for shipment.

1) Add appropriate Net Contents information
2) Add an appropriate EPA Establishment Number to the label
3) Add "to the extent consistent with applicable law" prior to "buyer assumes the risk of any such use" on page 45.

Submit one (1) copy of final printed labeling incorporating the above changes before you release the product for shipment. Amended labeling will supercede all previously accepted ones. A stamped copy of labeling is enclosed for your records.

The formulation amendment [dated Jan. 28, 2010] of the product referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act as amended is acceptable, provided you submit a revised CSF marking Box A as the Basic Formulation. The CSF dated Jan.28, 2010 will supercede all previously accepted basic CSFs and alternate CSFs and will be added to your file.

If you have any questions, please contact Hope Johnson at 703-305-5410.

Sincerely,

James A. Tompkins
Product Manager 25
Herbicide Branch
Registration Division (7505P)

Source Dynamics February 1, 2010

Restricted Use Pesticide due to acute toxicity. For retail sale to and use only by certified applicators or persons under their direct supervision and only for those uses covered by the certified applicator's certification.

PARAQUAT CONCENTRATE

Defoliant and desiccant herbicide for the control of weeds and grasses and as a harvest aid.

NEVER PUT INTO FOOD, DRINK OR OTHER CONTAINERS.
IF SWALLOWED, TAKE IMMEDIATE ACTION AS PRESCRIBED IN FIRST AID.
SYMPTOMS ARE PROLONGED AND PAINFUL.
DO NOT USE OR STORE IN OR AROUND THE HOME.
DO NOT REMOVE CONTENTS EXCEPT FOR IMMEDIATE USE.
THE ODOR OF THIS PRODUCT IS FROM THE STENCHING AGENT WHICH HAS BEEN ADDED, NOT FROM PARAQUAT.

NET CONTENTS: (2.5. 5, 15, 30, 55 gallons and 85-300 gallon mini-bulk)

Active Ingredient:
paraquat dichloride (1,1'-dimethyl-4,4'-bipyridinium dichloride) 43.2%
Other Ingredients: 56.8%
Total: 100.0%

Contains 3.0 pounds paraquat cation per gallon as 4.14 pounds of dichloride salt per gallon. Contains emetic and stench (odor).

KEEP OUT OF REACH OF CHILDREN

DANGER/PELIGRO

ACCEPTED
with COMMENTS
in EPA Letter Dated
FEB 10 2010
Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No.
82542-3

POISON

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

EPA Reg. No. 82542-3
EPA Est. No.
Product of China

Net Contents:

Manufactured for: Source Dynamics, LLC
10039 E. Troon North Drive
Scottsdale, AZ 85262

FIRST AID Contains Paraquat, a Bipyridinium Herbicide Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

If swallowed	• **Call a poison control center or doctor IMMEDIATELY for treatment advice.** • SPEED IS ESSENTIAL. Immediate medical attention is required. If available, give an absorbent such as activated charcoal, bentonite or Fuller's Earth. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to by a poison control center or doctor. • Do not give anything by mouth to an unconscious person.
If inhaled	• Move person to fresh air. • The odor of this product is from the stenching agent, which has been added, not from the paraquat. • If person is not breathing, call 911 or an ambulance. • Call a poison control center or doctor for treatment advice.
If in eyes	• Hold eye open and rinse slowly and gently with water for 15-20 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 on skin or clothing	• 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.

NOTE TO PHYSICIAN: Administer either activated charcoal (100g for adults or 2g/kg body weight in children) or Fuller's Earth (15% solution; 1 liter for adults or 15ml/kg body weight in children). NOTE: The use of gastric lavage without administration of an absorbent has not shown any clinical benefit. Do not use supplemental oxygen. Eye splashes from concentrated material should be treated by an eye specialist after initial treatment. With the possibility of late onset corneal ulceration, it is advised that patients with paraquat eye injuries are reviewed by an eye specialist the day after first presentation. Use treatment that is appropriate for chemical burns. Intact skin is an effective barrier to paraquat; however, contact with irritated or cut skin or repeated contact with intact skin may result in poisoning.

HOT LINE NUMBERS:

SAFETY DATA AND INFORMATION 203-573-3303
TRANSPORTATION EMERGENCY (CHEMTREC) 800-424-9300

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER. May be fatal if swallowed. Fatal if inhaled. Corrosive. Causes irreversible eye damage. Wear protective eyewear. Do not breathe spray mist. Wear a dust mist respirator. Causes irreversible eye damage. Do not get in eyes or on clothing. Harmful if absorbed through skin. Avoid contact with skin. Prolonged or frequently repeated contact may cause allergic reactions in some individuals.

IMPORTANT: Inhalation is an unlikely route of exposure due to low vapor pressure and large spray droplet size, but mucosal irritation or nose bleeds may occur. Prolonged contact with this concentrated product can irritate your skin.

Personal Protective Equipment (PPE)

Applicators and other handlers (other than mixers and loaders) must wear:

Long-sleeved shirt and long pants; Chemical resistant gloves – Category A (e.g., barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinyl chloride (PVC) or viton); Shoes plus socks; Protective eyewear; NIOSH-approved particulate filtering respirator equipped with N, R or P class filter media. The respirator should have a NIOSH approval number prefix TC-84A. It is recommended that you require that respirator wearer to be fit tested, and trained in the use, maintenance and limitations of the respirator.

Mixers and loaders must wear:

Long-sleeved shirt and long pants
Chemical resistant gloves – Category A (e.g., barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinyl chloride (PVC) or viton)
Shoes plus socks
Chemical resistant apron
Face shield
NIOSH-approved particulate filtering respirator equipped with N, R or P class filter media. The respirator should have a NIOSH approval number prefix TC-84A. It is recommended that you require that respirator wearer to be fit tested, and trained in the use, maintenance and limitations of the respirator.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

Engineering Controls: When handlers use closed systems, enclosed cabs, or aircraft 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.

User Safety Recommendations

Users should:
Wash hands before eating, drinking, and 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.

ENVIRONMENTAL HAZARDS

This product is **toxic to wildlife**. 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 cleaning equipment or disposing of equipment wash waters.

Paraquat dichloride is **toxic to nontarget crops and plants** if off-target movement occurs because it desiccates all green plant tissue. Extreme care must be taken to ensure that off-target drift is minimized to the greatest extent possible. Refer to the local state laws, regulations, guidelines, and spray drift information contained in the Directions for Use section for proper application to avoid off-target movement. Do not apply under conditions involving possible drift to food, forage, or other plantings that might be damaged or the crops thereof rendered unfit for sale, use, or consumption. Do not apply when weather conditions favor drift from treated areas. To avoid drift, do not make aerial application during periods of thermal inversion.

PHYSICAL AND CHEMICAL HAZARDS

This product is **mildly corrosive to aluminum** and produces hydrogen gas which may form a highly combustible gas mixture. Do not mix or store in containers, spray tanks, nurse tanks, or such systems made of aluminum or having aluminum fittings. The product is compatible with high density polyethylene and rubber-lined steel containers.

DIRECTIONS FOR USE

Restricted Use Pesticide. It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

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. Do not use around home gardens, schools, recreational parks, golf courses or playgrounds.

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 interval. The requirements in this box only apply to use of this product that are covered by the Worker Protection Standard.

For preplant or preemergence (broadcast **or banded), chemical fallow, postemergence directed spray applications, early postemergence broadcast in peanuts and dormant season applications, and "between cutting" applications in alfalfa:** Do not enter or allow worker entry into treated areas during the **restricted-entry interval (REI) of 12 hours.**

For **harvest aid and desiccation application:** 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
Shoes plus socks
Protective eyewear
Chemical resistant gloves - Category A (e.g., barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinyl chloride (PVC) or viton).

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 others to enter the treated area until sprays have dried.

AVOID working in spray mist.

Keep all unprotected persons out of operating areas or vicinity where there may be danger of drift.

Certain states may require more restrictive reentry intervals; consult your State Department of Agriculture for further in formation.

USE INSTRUCTIONS AND INFORMATION

Do not apply this product through any type of irrigation system.

When PARAQUAT CONCENTRATE is applied at less than 10 gallons per acre finished spray volume, a drift control or spray deposition additive SHOULD be used. Refer to the additive label for rates of applications, directions for use, limitations, and restrictions.

SPRAY DRIFT INFORMATION

AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY **OF** THE

APPLICATOR. The interaction of many equipment- and weather-related factors determines the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following DRIFT MANAGEMENT REQUIREMENTS must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

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°. Where states have more stringent regulations, they shall be observed.

The applicator should be familiar with and take into account the information covered in the Aerial Drift Reduction Advisory Information.

Where states have more stringent regulations, they must be observed.

AERIAL DRIFT REDUCTION ADVISORY INFORMATION

Information on Droplet Size

The most effective way to reduce drift potential is to apply large droplets. The best management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environment conditions (see Wind, Temperature and Humidity, and Temperature Inversions).

Controlling Droplet Size

- **Volume** - Use high flow rate nozzles to apply the highest spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure** - Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- **Number of Nozzles** - Use the minimum number of nozzles that provide uniform coverage.
- **Nozzle Orientation** - Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- **Nozzle Type** - Use a nozzle that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

Boom Length

For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.

Application Height

Applications must not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making application at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

Swath Adjustment

When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase with increasing drift potential (higher wind, smaller drops, etc.).

Wind

Drift potential is lowest between wind speeds of 2-10 mph. However, many factors, including droplet size and equipment type, determine drift potential at any given speed. Application must be avoided below 2 mph due to variable wind direction and high inversion potential. NOTE: Local

terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

Temperature and Humidity

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

Temperature Inversions

Applications must not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes 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 are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They 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 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.

Sensitive Areas

The pesticide must only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

USE INFORMATION

PARAQUAT CONCENTRATE is a liquid formulation containing 3 lbs. of active ingredient per gallon. It contains a nontoxic odor to help prevent accidental ingestions. It also contains an emetic (an agent which will induce vomiting if the product is swallowed).

APPLICATION

PARAQUAT CONCENTRATE is a contact herbicide for control or suppression of a broad spectrum of emerged weeds including most small annual broadleaf and grass weeds. It can also be used to suppress perennial weeds by destroying green foliage and as a desiccant/ defoliant at harvest.

Complete coverage of target weeds is necessary to get good control because PARAQUAT CONCENTRATE is a contact-type herbicide. It is also necessary to obtain complete coverage for good crop desiccation and defoliations. Undesirable weed control and undesirable crop desiccation/defoliation will result if improper application technique and/or application to large, stressed, or mown weeds are made. Refer to the following details for specific application instructions.

Thorough coverage of all green foliage is required for efficacious weed control and crop defoliation and desiccation because PARAQUAT CONCENTRATE requires actively growing green plant tissue to function. Drought-stressed weeds, weeds with little green foliage (i.e., mowed or cut weeds), or mature woody bark of trees and vines are unaffected by application with PARAQUAT CONCENTRATE.

There is no residual soil activity to affect later-planted crops or later germinating weeds because clay and organic matter rapidly tie up PARAQUAT CONCENTRATE.

ROTATIONAL CROPS

After the last application PARAQUAT CONCENTRATE, all rotational crops may be planted immediately.

RAINFASTNESS

Rain occurring 30 minutes or more after application will have no effect on the activity of PARAQUAT CONCENTRATE because it is rapidly absorbed by the weed foliage.

USE OF A NONIONIC SURFACTANT OR CROP OIL CONCENTRATE

The following should always be added and be used at the recommended rates or there will be a reduction in efficacy of PARAQUAT CONCENTRATE.

Nonionic Surfactant: Either add a nonionic surfactant cleared for the current use containing 50-74% surface-action agent at 0.25% v/v (2 pts./100 gals.), or add nonionic surfactant containing 75% or more surface-active agent at 0.125% v/v (1 pt./100 gals.), of the finished spray volume for ground applications. Add a nonionic surfactant at 0.25% v/v (2 pts./100 gals.) of the finished spray volume for aerial applications.

Crop Oil Concentrate: For ground applications, add a nonphytotoxic crop oil concentrate cleared for the current use that contains15-20% approved emulsifier, with 1.0% v/v (1 gal./100 gals.) of the finished spray volume. Add 1 pt. of crop oil concentrate per acre for aerial applications. **For cotton harvest aid, do not use crop oil concentrate when using PARAQUAT CONCENTRATE.**

NOZZLE SELECTION

The use of flat-fan nozzles is the most effective application of PARAQUAT CONCENTRATE. The use of flood nozzles may result in a reduction of weed control due to inadequate coverage because they produce large uneven droplets.

Use only flat fan nozzles when spraying less than 20 gallons of spray carrier per acre using the following table.

Nozzle Type and Spray Pressures and Setup

	Nozzle Type	
	Flat Fan	**Flood**
Maximum Size	8	15
Spray Pressure (at nozzle)	30-50 psi	30-50 psi
Maximum Nozzle Spacing	30"	40"
Direction of Spray Pattern	Down	Down
Maximum Speed	10 mph	10 mph
Spray Overlap (at each edge)	30%	50%

Reduced control will result if nozzles, pressures, or setups differ from the above chart.

SPRAY CARRIER

PARAQUAT CONCENTRATE may be inactivated by muddy water, or suspension-type fertilizers containing clay. Therefore, always use clean water (free of mud or clay), clear liquid nitrogen, or complete clear liquid fertilizers as the carrier when spraying this product. Never use suspension-type fertilizers containing clay as the spray carrier. Always use the higher specified rate of PARAQUAT CONCENTRATE and surfactant if using a complete clear liquid fertilizer containing high phosphate levels as the spray carrier.

Note: It is important that when using liquid fertilizers such as 28% N as a spray carrier, that nonionic surfactant still be used with PARAQUAT CONCENTRATE. The use of liquid fertilizer carriers are not substitutes for surfactants.

RATES OF PARAQUAT CONCENTRATE

With each use, follow rates listed in the following tables. When weeds are larger or are dense,

use the higher label rates. For use as a harvest aid, use the higher specified rate when crop vegetation is dense. Do not exceed 0.50 lbs. a.i./A in a minimum of 30 gallons of spray for broadcast applications with backpack sprayers.

SPRAY VOLUME

With each use, follow rates listed in the following tables. Spray volumes should be increased as necessary to obtain complete coverage of the target weed or plant without runoff from the foliage, because **the volumes listed are minimum volumes only.**

TARGET WEEDS SHOULD NOT EXCEED SIX INCHES IN HEIGHT WHEN SPRAYING LESS THAN 20 GALLONS OF SPRAY CARRIER PER ACRE.

APPLICATION TIMING

Applications should be made to small emerged weeds. Larger weeds more than 6 inches in height may be more difficult to control than weeds 1-6 inches in height. If possible, when green foliage is removed either from grazing or mowing, allow the weeds to grow 2-4 inches in height. Also, during harvesting forage or grain crops before spraying, weeds present in the field are also cut. Therefore, raise cutter bars as high as possible from the ground to cut stubble and weeds at a greater height, allowing sufficient green foliage to remain for applications.

BURNDOWN OF GRASS COVER CROPS OR VOLUNTEER CEREALS

The best results occur for control of grass cover crops or volunteer cereals when PARAQUAT CONCENTRATE is applied prior to tillering or after boot stage, especially with a wheat cover crop or volunteer wheat. Complete control may not be achieved with treatments made between tillering and boot stage. Complete control of perennial cover crops should not be expected.

ENVIRONMENTAL CONDITIONS

This product is active over a wide range of environmental conditions such as cool (below 55°F), cloudy or overcast weather. However these conditions will slow the activity of PARAQUAT CONCENTRATE.

SPOT SPRAYING

Refer to the following table if only small areas are to be sprayed with labeled applications.

Mixing Instructions for Small Quantities for Spot Spraying

If the Broadcast Rate Per Acre for PARAQUAT CONCENTRATE is:	Add The Following Amount of PARAQUAT CONCENTRATE to 1 Gallon of Water
1 1/2 pts.	1/3 fl. oz
2 pts.	3/8 fl. oz.
2 1/2 pts.	1/2 fl oz.
3 pts.	2/3 fl. Oz.

Add 1/3 - 1/2 fl. oz. of a nonionic surfactant for each gallon of spray at all times. Thoroughly wet the foliage, but not to the point of runoff when spot spraying in this manner.

TANK MIXING: ENHANCED BURNDOWN OF DIFFICULT-TO-CONTROL WEEDS AND FOR RESIDUAL WEED CONTROL

Photosynthetic Inhibitor Herbicides

To control difficult weeds, tank mix PARAQUAT CONCENTRATE with other herbicides. The addition of other photosynthetic inhibitors (PSI) herbicides will slow the activity of PARAQUAT CONCENTRATE. This allows PARAQUAT CONCENTRATE to thoroughly distribute throughout a

treated leaf, thus achieving better control than if PARAQUAT CONCENTRATE was applied alone.

PARAQUAT CONCENTRATE may be applied in tank mixture with the following PSI herbicides:

AAtrex® Herbicide

Atrazine Herbicide

Bicep Lite II

MAGNUM® Herbicide

Bicep MAGNUM® Herbicide

Canopy® Herbicide

Lariat® Herbicide

Lexone® Herbicide

Linex® Herbicide

Lorox® Herbicide

Lorox Plus™ Herbicide

Princep® Herbicide

Sencor® Herbicide

Always refer to the respective product label(s) for rates of applications, directions for use, limitations, and restrictions.

Improved Weed Control with PSI's

The addition of a PSI herbicide will help improve the control of difficult weeds listed below. Make a second application for best results.

Barnyardgrass
Broadleaf signalgrass
Cheatgrass
Cocklebur
Fall panicum
Giant ragweed
Knotweed
Kochia
Lambsquarters
Malva (cheeseweed)
Marestail
Morningglory
Pennsylvania smartweed
Perennial weeds (suppression only)
Prickly lettuce
Sedges
Tansymustard
Velvetleaf
Volunteer wheat

Improved Control of Perennial and Annual Broadleaf Weeds

Tank mixing with labeled 2,4-D ester (Low Volatile), 2,4-DB or Banvel® herbicide will help improve control when perennial broadleaf weeds such as Canada thistle, bindweed, dandelion, etc., or difficult to control annual broadleaf weeds such as giant ragweed or morningglory are present. Reduced grass control may be achieved when tank mixing the amine formulation of 2,4-D with PARAQUAT CONCENTRATE .

Order of Tank Mixing

It is advisable to tank mix PARAQUAT CONCENTRATE and other listed products as follows:

1. Fill spray tank t/2 full with clean water or other approved carriers such as clear liquid fertilizer.
2. Begin tank agitation and continue throughout mixing and spraying.
3. Add dry formulations (WP, DF, etc.) to tank.
4. Add liquid formulations (SC, EC, L, etc.) to tank.
5. Add PARAQUAT CONCENTRATE to tank.
6. Add nonionic surfactant to tank.
7. Fill remainder of spray tank.

Always read other pesticide products labels for weeds controlled, rates of applications, directions for use, limitations, and restrictions.

It is advisable to perform a jar test to check physical compatibility when using different formulation of the herbicides listed on this label.

USE PRECAUTIONS AND RESTRICTIONS

EQUIPMENT

PARAQUAT CONCENTRATE is **corrosive to aluminum.** Thoroughly flush all aluminum spray equipment and aluminum aircraft structures that are exposed to spray solution or spray drift with water immediately after use.

The activity of PARAQUAT CONCENTRATE may be reduced in dry areas where dust stirred up by high winds or equipment tires can coat weed or plant leaves. Therefore, avoid applications in extremely dusty conditions.

LIMITATIONS AND PRECAUTIONS

- **Unless otherwise indicated, PARAQUAT CONCENTRATE will severely injure or kill crop plants emerged at time of application if they come in contact with sprays.**
- Do not pasture livestock in treated fields or feed treated foliage in cotton when this product is used as a cotton harvest aid.

- Do not use around home gardens, schools, recreational parks, or playgrounds.
- Do not apply to soils lacking clay minerals such as peat, muck, pure sand, artificial planting media for preplant and preemergence (to the crop) uses.
- To enable maximum weed and grass emergence prior to treatment, seedbeds and plantbeds should be formed as far ahead of planting and treatment as possible.
- Avoid disturbing soil when seeding or transplanting.
- Transplanted plants may become damage when they come in contact with plastic mulch used for preplant weed control and that has been treated with this product.To prevent damage to the crop, sufficient wash-off such as rainfall or sprinkler irrigation prior to planting may be needed.

• PARAQUAT CONCENTRATE will be ineffective in controlling or suppressing weeds and grasses that have emerged after application.

APPLICATION INSTRUCTIONS

Crop	Weeds	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest interval (Days)	Additional Precautions, Restrictions and Directions
ALFALFA (California only) New seedlings		Broadcast	0.7-1.3 pts. See Table 2.	Ground: 10 gals. Air: 5 gals.	70	• Do not make more than one application per year. • Applications should be made during late winter or early spring. • Do not cut or harvest within 70 days after application. • Alfalfa foliage present at time of application will be burned. • Replanting may be needed due to the reduction of seedling stands. • Do not apply to seedling alfalfa grown for seed.
ALFALFA Preplant or Preemergence (No-till or conventional planting)		Broadcast or Banded Over Row	1.7-2.7 pts.	Ground: 10 gals. Air: 5 gals.		• Do not make more than 2 applications per year. • Apply prior to emergence of the crop. Avoid disturbing soil when seeding. • Crop plants emerged at time of application will be killed.
ALFALFA Dormant season Established plantings Region A - See table at end of Alfalfa section	Weeds, including bluegrass, chickweed, henbit, downy brome, ryegrass, cheatgrass, dogfennel, tansymustard, London rocket, sowthistle, rescue brome, wild oats, and other winter annuals; and suppression of perennial weeds.	Broadcast	1.3-2.0 pts.	Ground: 10 gals. Air: 5 gals.	42	• Do not make more than one application per year. • **Fall regrowth:** Do not apply if last fall cutting is greater than 6." • **Spring regrowth:** Do not apply if last cutting is greater than 2". • After the crop is dormant, apply to well-established stands that are at least 1-year old. • Yield of first cutting may be reduced because alfalfa foliage present at the time of application will be burned. • Do not cut or harvest within 42 days after application. • For improved and longer-lasting weed control, tank mix with metribuzin (Lexone or Sencor). Always refer to the metribuzin label for weeds controlled, rates of applications, directions for use, limitations, and restrictions.

Crop	Weeds	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
ALFALFA Dormant season Tank Mix with Velpar® L-Herbicide Region A - See table at end of Alfalfa section	Weeds including chickweed, downy brome and tansymustard.	Broadcast	0.7-1.3 pts.	Ground: 10 gals. Air: 10 gals.	42	• Do not make more than 2 applications per year. • When weeds are less than 4 inches tall apply at 0.7 pt. rate PARAQUAT CONCENTRATE • Mix PARAQUAT CONCENTRATE with 1-2 qts. of Velpar L per acre. • Use lower rate of Velpar L on loamy sands or sandy loams. Always refer to the Velpar L label for weeds controlled, rates of applications, directions for use, limitations, and restrictions. • During the dormant season, make one application to established alfalfa stands . • **Fall regrowth:** Do not apply if last fall cutting is greater than 6." • **Spring regrowth:** Do not apply if last cutting is greater than 2". • Do not apply to alfalfa during the first season after seeding. • Temporary chlorosis may occur on alfalfa regrowth. • Increased chances of crop injury may occur if stress which may be caused in part by low fertility, disease, insects, winterkill, over cutting, drought or frost. • DO NOT USE on gravelly or rocky soils, exposed subsoils, hardpan, sand or poorly drained alkaline soils as crop injury, including mortality, may result. • Do not cut or harvest within 42 days of application.
ALFALFA Dormant Season On established plantings: Region B: See table at end of Alfalfa section. On fall-seeded newly established stands less than 1-year-old: Region A - See	Weeds including London rocket, sowthistle, rescue brome, wild oats, chickweed, ryegrass, bluegrass, cheatgrass, dogfennel, tansymustard, henbit, downy brome, and other winter annuals; and suppression of perennial weeds	Broadcast	0.7-1.3 pts.	Ground: 10 gals. Air: 5 gals.	60	• Do not make more than one application per year. • Applications should be made before first spring cutting and during late fall or winter months after the last fall cutting. • **California:** Do not apply if spring regrowth after grazing or cutting is more than 2 inches in Orange and Riverside counties, and all counties north of these counties. • **All other areas within Region B:** Do not apply if regrowth after grazing or cutting is more than 2 inches. • Do not harvest within 60 days of application. • Applications to alfalfa that is not dormant, or has broken dormancy, may result in stand and/or yield reductions. Replanting

table at end of Alfalfa section	**California:** Desiccation of weeds including bluegrass, ryegrass, shepherdspurse, chickweed, tansymustard, foxtail, sowthistle and groundsel.	Broadcast	0.7-1.3 pts.	Ground: 10 gals. Air: 5 gals.	60	may be necessary. Green alfalfa foliage present at time of application will be burned. • If there is a severe weed infestation, total hay yield of first cutting may be reduced in alfalfa fields and the reduction is typically directly proportionate to the loss of weed weight. • For improved and residual weed control in **dormant established (at least 1-year-old) alfalfa,** tank mix with metribuzin (Lexone or Sencor). Do not apply tank mix with metribuzin on alfalfa that is less than 1-year-old. • Always refer to metribuzin label for weeds controlled, rates of applications, directions for use, limitations, and restrictions. **California** • If ryegrass, shepherdspurse, sowthistle or groundsel are present, use the higher specified rate.
On fall-seeded newly established stands less than 1-year-old: Region B - See table at end of Alfalfa section		Broadcast	0.5-0.8 pts.	Ground: 10 gals. Air: 5 gals.	60	

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
ALFALFA (East of the Rocky Mountains) Between-cuttings treatment in established plantings. (Includes first year alfalfa)	Broadcast	0.7 pt.	Ground: 10 gals.	30	• Do not make more than 3 applications per year. • Control of weeds beyond the seedling stage and weed stubble cut off during harvest are less affected by this treatment. • Make applications immediately after alfalfa has been removed for hay or silage. • Do not treat more than 5 days after cutting. • A reduction in first year alfalfa stands and yeilds may occur if alfalfa is allowed to regrow more than 2 inches. • Burning of alfalfa foliage will occur at time of application. • Weed control may be reduced where moisture is limited such as in arid climates. • Do not cut or harvest within 30 days of application. • Apply as needed up to three times during the growing season in addition to a dormant application. • Do not make more than 2 applications during the first growing season of first-year alfalfa.
ALFALFA (For use only in the following states: ID, MT, NV, OR, UT, WA, WY) Desiccation of alfalfa to aid harvesting alfalfa seed	Broadcast	1.7-2.7 pts.	Ground: 20-25 gals. Air: 5-10 gals.	See Precautions	• Do not make more than 2 applications per year. • Do not harvest until at least 4 days after application. • Do not apply when weather conditions favor drift from treated areas. • Do not apply by ground equipment within 25 ft., or by air within 75 ft. of lakes; reservoirs; rivers; permanent streams; marshes or natural ponds; estuaries; and commercial fish farm ponds. • Use only on fields in production of alfalfa seed. Do not use on fields producing alfalfa for livestock feed. Do not use any portion of the treated field for human or animal feed, including seed, seed screenings, hay forage, or stubble • Do not cut current year's treated alfalfa seed crop for hay or forage. Do not graze current year's treated

PARAQUAT CONCENTRATE/ Reglone Tank Mix	Broadcast	1.3-2.7 pts. PARAQUAT CONCENTRATE/ 2 pts. Reglone	Ground: 20-25 gals. Air: 5-10 gals.	See Precautions	alfalfa seed crops. • Do not use treated alfalfa seed for sprouting. Tag all alfalfa seed treated with PARAQUAT CONCENTRATE/Reglone tank mix at processing plants with, "NOT FOR HUMAN CONSUMPTION". The grower is responsible for notifying the processing plants of any seed crop treated with PARAQUAT CONCENTRATE/Reglone tank mix. • Remove ALL PARAQUAT CONCENTRATE/Reglone treated alfalfa seed screenings from the market because all screening from alfalfa seed processing are prohibited from feed channels.

ALFALFA: New Seedlings - Suppression and control of broadleaf weeds and grasses in new alfalfa seedlings grown for hay (California only).		
	Rate/Acre*	
For Control of:	For Suppression	For Control
Annual Bluegrass	—	10.7-21.3 fl. oz.
Chickweed	—	10.7-21.3 fl. oz.
Fiddleneck (6 inches tall or less)	5.4-10.7 fl. oz.	21.3 fl. oz.
Red Maids (6 inches tall or less)	—	10.7-21.3 fl. oz.
Shepherdspurse	10.7-21.3 fl. oz.	—
Spikeweed (4 inches tall or less)	5.4 fl. oz.	10.7-16.0 fl. oz.
Volunteer Small Grain (8 inches tall or less)	5.4-10.7 fl. oz.	21.3 fl. oz.

*** Use the 5.4 fl. oz. rate only when alfalfa has at least 3 trifoliate leaves; use the 10.7 fl. oz. rate only when alfalfa has 6 trifoliate leaves; or use rates over 10.7 fl. oz. only when there are 9 trifoliate leaves.**

Alfalfa – Regions

REGION A
Alaska, California (counties of Del Norte, Siskiyou, Modoc, Shasta, Lassen, Plumas, Sierra and Nevada), Colorado, Connecticut, Delaware, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New York, North Dakota, Ohio, Oregon, Pennsylvania, Rhode Island, South Dakota, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming

REGION B
Alabama, Arizona, Arkansas, California (all other counties not listed in Region A), Florida, Georgia, Hawaii, Louisiana, Mississippi, New Mexico, North Carolina, Oklahoma, South Carolina, Tennessee, Texas

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
ALMONDS	Directed Spray	0.8-2.7 pts.	Ground: 10 gals.	—	• Do not make more than 5 applications per year. • Avoid allowing spray to contact green stems (except suckers) or foliage. • When spraying around young trees, use a shield or wrap plant . • Do not graze treated areas and do not feed cover crops grown in treated areas to livestock. • Do not apply when nuts to be harvested are on the ground. • Retreatment or spot treatments may be necessary for mature woody weeds, perennial weeds, late germinating weeds and green suckers.
ARTICHOKE (GLOBE)	Directed Spray	1.7-2.7 pts.	Ground: 20-100 gals.	1	• Do not make more than 3 applications per year. • Do not exceed 8 pts. per season. • Applications must be made at least 7 days apart. • Do not harvest within 24 hours of last application.
ASPARAGUS	Preplant or Preemergence Broadcast or Banded Over-Row	1.7-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Application should be made prior to emergence of the crop. • Emerged asparagus at time of application will be killed.
ASPARAGUS Preemergence to established plantings at least 2 years old.	Broadcast or Banded Over-Row	1.7-2.7 pts.	Ground: 10 gals.	6	• Do not make more than 3 applications per year. • Application should be made prior to emergence of the crop or after last harvest. • Emerged asparagus at time of application will be killed.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
BEANS, DRY **Not for use in California** Sweet lupin White sweet lupin White lupin Grain lupin Adzuki beans Asparagus beans Black beans Broad beans Field beans Garbanzo beans Kidney beans Lablab beans Moth beans Mung beans Navy beans Pinto beans Rice beans Tepary beans Urd beans Guar **PEAS, DRY** **Not for use in California** Blackeyed peas Chickpeas Cowpeas Crowder peas Southern peas Catjang	Harvest-Aid	0.8-1.3 pts.	Ground: 20 gals. Air: 5 gals.	7	• Do not make more than 2 applications per year. • Add nonionic spreader at 1 qt./100 gals.of spray mix. • Use a single application of the higher specified rate for vining type beans or bush type with lush growth. • May also be applied as a split application and may improve vine coverage. However do not make more than 2 applications per year or exceed a total of 1.3 pints per acre. • Apply when at least 80% of the pods are yellowing and mostly ripe and when leaves are no more than 40% of bush type peas or beans or 30% of vine type peas or beans are green . • Do not apply when weather conditions favor spray drift. To reduce drift, a drift control agent may be included. • Not registered for use in dry beans and dry peas in California.
BERRIES Blackberry Blueberry Boysenberry Currant Elderberry Gooseberry Huckleberry Loganberry Raspberry	Postemergence Directed Spray	1.3-2.7 pts.	Ground: 50 gals.	—	• Do not make more than 5 applications per year. • New canes or shoots can be injured. Therefore, apply before their emergence. • To prevent crop injury from spray mist, apply as a coarse spray.
CACAO	Directed Spray	1.3-2.7 pts.	Ground: 50-200 gals.	1	• Do not make more than 5 applications per year. • Apply when weeds are succulent and growth is from 1-6".

					• Retreatment or spot treatments may be necessary for mature woody weeds, late-germinating weeds and grasses and for perennials. • Use a shield for young trees to prevent sprays from contacting cacao plants, as injury may result. • Do not spray under windy conditions. • Do not graze treated areas or feed treated cover crops to livestock.
CASSAVAS, TANIERS & YAMS (Puerto Rico only)	Shielded Post Directed Spray	1.3 pts.	Ground: 50 gals.	90	• **Cassavas and Taniers:** Do not make more than 3 applications per year. • **Yams:** Do not make more than 2 applications per year. • Make applications when weeds are succulent and growth is 1-6". • Prevent spray from contacting crop to prevent injury to crop. • Do not spray under windy conditions. • Do not graze treated areas or feed treated forage to livestock.

Use Information for Chemical Fallow

- As the density of stubble, crop residue or weeds increases, use higher spray volumes for better coverage.
- To control volunteer wheat or downy brome, fall-applied treatments generally work best with PARAQUAT CONCENTRATE. If possible, tank mix with atrazine for maximum burndown and residual control.
- Apply from immediately after harvest up to emergence of the newly seeded crop as a broadcast or band treatment.
- Before applying PARAQUAT CONCENTRATE, cut wheat as high as possible to avoid cutting weeds too short, and allow the weeds to grow at least 2-3" after harvest .
- The addition of dicamba (Banvel) or 2,4-D ester (Low Volatile) may aid in the suppression of emerged perennial broadleaf weeds and large annual broadleaf weeds. Always refer to the product label(s) for 2,4-D ester (Low Volatile), Banvel, or residual herbicide for rates of applications, directions for use, limitations, and restrictions.
- It is permissible to tank mix with registered residual herbicide combinations other than listed for extended weed control during the fallow period
- Weeds and grasses emerging after application and weeds taller than 6 inches will not be controlled.
- Crop plants emerged at the time of application will be killed.
- The minimum total spray per acre allowed is 5 gallons for ground and 5 gallons for air applications.
- Apply 5-60 gallons spray mix per acre by ground application.
  When applying at less than 10 GPA by ground:
  Do not apply with floaters or exceed a speed of 10 mph.
  Apply with flat fan nozzles at 30-40 psi.
  Apply only in a tank mix with atrazine at a minimum of 0.5 lb. a.i./acre.
  By air: apply in 5-10 gallons of spray mix per acre.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
CHEMICAL FALLOW Continuous Wheat (2-3 month recropping interval)	Broadcast	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2.0 pts. Weeds 6": 2-2.7 pts.	Ground: 5 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Apply at least 45 days before seeding. • For volunteer wheat or downy brome control in spring, use at least 1.3 pts. of PARAQUAT CONCENTRATE per acre with a Photosynthetic Inhibitor Herbicide. • Refer to the section "Use Information for Chemical Fallow".
CHEMICAL FALLOW Wheat-Fallow-Wheat Rotations (Fall applied after harvest; seeded 12-14 months later)	Broadcast	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2 pts. Weeds 6": 2-2.7 pts.	Ground: 5 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Spray before weeds produce seeds. • Control of volunteer wheat and downy brome control increases when applications are made late August or early September. • For improved burndown and residual control of weeds, tank mix with Atrazine, Marksman® Herbicide, or Command® Herbicide. • For improved burndown and residual control of grass and broadleaf weed tank mix with metribuzin (Sencor 75DF). • Always refer to the respective product label(s) for rates of applications, directions for use, limitations, and restrictions. • Refer to the section "Use Information for Chemical Fallow".
CHEMICAL FALLOW Wheat-Fallow-Wheat Rotations (Spring applied: seeded 3-5 months later)	Broadcast	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2 pts. Weeds 6": 2-2.7 pts.	Ground: 5 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • To conserve moisture, application should be made March 1 to April 15, prior to spring rains. • Even though moisture loss is greater when applications are made after the boot stage, volunteer wheat is easier to control after this stage. • For volunteer wheat or downy brome control in spring, use at least 1.3 pts. of PARAQUAT CONCENTRATE per acre with a Photosynthetic Inhibitor Herbicide. • Refer to the section "Use Information for Chemical Fallow". • For burn down and residual control of grass and broadleaf weeds, tank mix with metribuzin, (Sencor 75DF/Lexone). • Always refer to the label for metribuzin (Sencor 75DF/Lexone) for rates of applications, directions for use, limitations, and restrictions.
CHEMICAL FALLOW Wheat-Annual Crop-Wheat Rotations (Fall applied in wheat stubble)	Broadcast	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2 pts. Weeds 6": 2-2.7 pts.	Ground: 5 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • For improved burndown and residual weed control, tank mix with Atrazine or Marksman. Always refer to the respective product label(s) for rates of applications, directions for use, limitations, and restrictions. • Make applications after wheat harvest and before weeds produce seed. • If grasses such as foxtails or barnyardgrass recover, respray before seed production. • Applications made late August to November help control volunteer wheat and downy brome. • Refer to the section "Use Information for Chemical Fallow".
CHEMICAL FALLOW Wheat-Annual Crop-Wheat Rotations (Spring applied prior to planting an annual crop)	Broadcast	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2 pts. Weeds 6": 2-2.7 pts.	Ground: 5 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • For enhanced burndown and residual weed control, tank mix with Atrazine. Always refer to the respective product label(s) for Atrazine for rates of applications, directions for use, limitations, and restrictions. • For volunteer wheat or downy brome control in spring, use at least 1.3 pts. of PARAQUAT CONCENTRATE per acre with a Photosynthetic Inhibitor Herbicide. • Refer to the section "Use Information for Chemical Fallow". • Refer to the Atrazine label for directions pertaining to soil pH and recropping intervals.

'Approved Annual Crops are grain sorghum, corn, wheat, or proso millet.

Crop	Weeds	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
CLOVER AND OTHER LEGUMES Including velvetbean, lespedeza, lupine, sainfoin, trefoil, vetch, crown vetch, and milk vetch. Dormant Season On established plantings: Region A – See table at end of Alfalfa section.	For desiccation of weeds, including London rocket, sowthistle, rescue brome, wild oats, chickweed, ryegrass, bluegrass, cheatgrass, dogfennel, tansymustard, henbit, downy brome, and other winter annuals, and suppression of perennial weeds. California • Use for desiccation of weeds including bluegrass, ryegrass, shepherdspurse, chickweed, tansy mustard, foxtail, sowthistle and groundsel.	Broadcast	1.3-2.1 pts.	Ground: 10 gals. Air: 5 gals.	60	• Do not make more than 1 application per year. • Applications should be made during late fall or winter months after the last cutting and before first spring cutting. • Do not apply if regrowth after grazing or cutting is more than 2". • Do not harvest within 60 days of application. • CAUTION: Stand and/or yield reductions may occur when applications are made to clover or other legumes that are not dormant, or have broken dormancy. Therefore, it may be necessary to replant. Burning will occur to green clover or other legumes' foliage present at the time of application. • Discoloration and temporary stunting will occur in clover or other legumes foliage present at the time of application. • If there is severe weed infestation, the total hay yield of first cutting may be reduced in clover or other legumes fields and is usually directly roportionate to the loss of weed weight. **In California:** • If ryegrass, shepherdspurse, sowthistle or groundsel are present, use the higher specified rate.
On established plantings: Region B - See table at end of Alfalfa section.		Broadcast	0.7-1.3pts.	Ground: 10 gals. Air: 5 gals.	60	
On fall-seeded, newly established stands less than 1-year-old: Region A - See table at end of Alfalfa section.		Broadcast	0.7-1.3pts.	Ground: 10 gals. Air: 5 gals.	60	
On fall-seeded, newly		Broadcast	0.5-0.8 pts.	Ground: 10 gals. Air:	60	

established stands less than 1-year-old: Region B - See table at end of Alfalfa section.				5 gals.		

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
CORN FIELD CORN POPCORN SWEET CORN SEED CORN (Used alone)	Preplant or Preemergence Broadcast or Banded Over Row	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2 pts. Weeds 6": 2-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Includes field, fresh sweet, forage, fodder and popcorn. • To permit maximum weed and grass emergence, seedbeds should be formed as far ahead of planting and treatment as possible. • Seeding should be done with a minimum amount of soil disturbance. • Control will not occur when applications are made after weeds and grasses have emerged. However, crop plants emerged at time of application will be killed.
CORN Tank mixes for no-till/ reduced till	Preplant or Preemergence Broadcast or Banded Over Row	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2 pts. Weeds 6": 2-2.7 pts.	Ground: 10 gals. Air: 5 gals.*	—	• Do not make more than 3 applications per year. • Applications should be made as broadcast sprays before, during or after planting, but before crop emergence. • PARAQUAT CONCENTRATE may be tank mixed with the following herbicides for improved burndown or residual control: 2,4-D Ester (Low Volatile) Harness® Harness® Xtra AAtrex®/Atrazine Lasso® Herbicide Banvel® Linex® Bicep MAGNUM® Lorox® Bicep Lite II MAGNUM® Princep® Dual MAGNUM Prowl® Herbicide Frontier® Simazine® Guardsman® Surpass® EC Harmony® Extra Herbicide Surpass® 100 (Preplant only) Topnotch® • PARAQUAT CONCENTRATE may also be tank mixed with Ambush® insecticide. • Always refer to respective product label(s) for rates of applications, directions for use, limitations, and restrictions. * Always refer to respective product label(s) to confirm if these products can be applied by air.

FIELD CORN, POPCORN, SWEET CORN, SEED CORN	Postemergence Directed Spray (including Hooded or Shielded)	0.7-1.3 pts.	Ground: 10 gals.	—	• Do not make more than 3 applications per year. • Applications should be made when weeds are actively growing. • Use the higher specified rate on larger or hard to control weeds. Weeds 6" or taller may not be controlled. • Severe damage and/or complete kill can occur if spray contacts corn plants **For Hooded Or Shielded Sprayers:** • Use a hooded or shielded sprayer with skids or wheels on the spray boom to maintain spray height in order to prevent excessive crop phytotoxicity. • Apply by directing spray between the rows and using hooded or shielded sprayers to prevent spray contact with crop plants. **For Directed Spray Without Hooded Or Shielded Sprayers:** Corn height is measure from soil surface to top of whorl. • Apply when corn is at least 10" tall with nozzles arranged to spray no higher than the lower 3" of corn stalks. • Corn plants shorter than 10" may be injured and not recover. • For corn more than 20" tall: Arrange the nozzles to spray no higher than the lower 1/3 of the corn stalks. • Injury to corn foliage will occur if sprayed. However, corn will recover and develop normally.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
FIELD CORN, POPCORN, SEED CORN	Harvest Aid Broadcast	0.8-1.3 pts.	Ground: 20 gals. Air: 5 gals.	7	• Do not make more than one application per year. Make ONE (1) application at least 7 days prior to harvest. • Apply after the corn is mature. This is indicated by a black layer which forms at the base of the kernels. You may consult your local agricultural authority for help in identifying the black layer. • Add nonionic surfactant containing at least 75% surface active ingredient at 0.25% v/v. • To desiccate mature broadleaf weeds and grasses or broadleaf weeds and grasses that are taller than 18", use 1.3 pts. • Drought stressed plants, especially broadleaf weeds, can be difficult to kill, and desiccation may not be complete.
FIELD CORN ONLY (grain, fodder, forage)	Postemergence Directed Spray USDA Witchweed	1.3 pts.	Ground: 10 gals.	—	• Do not make more than 3 applications per year. • If regrowth occurs, initiate sprays in late June to early July and repeat in

	Eradication Program				early August. • Follow application instructions in post-emergence directed spray section above.
FIELD CORN ONLY (grain, fodder, forage) 2,4-D Amine AE Tank Mix	Postemergence Directed Spray USDA Witchweed Eradication Program	5.4 fl. oz. +0.5 lb. 2,4-D Amine AE	Ground: 10 gals.	—	• Do not make more than 3 applications per year. • Apply as directed spray onto grassy weeds and witchweed before witchweed blooms. If regrowth occurs, reapply. • Follow application instructions in post-emergence directed spray section above. • Always refer to respective product label(s) for rates of applications, directions for use, limitations, and restrictions.
COTTON (Used alone)	Preplant or Preemergence	1.7-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Apply prior to, during or after planting, but before crop emergence. • For fallow bed treatment, beds should be preformed to permit maximum weed and grass emergence prior to treatment. • Seeding should be done with a minimum of soil disturbance.
COTTON (California only; Used alone)	Preplant	5.4-10.7 fl. oz.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • For control of volunteer barley in preformed seedbeds.
COTTON Goal® Herbicide Tank Mix	Preplant or Fallow Bed Broadcast	1.7-2.7 pts.	Ground: or Air: 10 gals.	—	• Do not make more than 3 applications per year. • Always refer to the Goal label for weeds controlled, rates of applications, and directions for use, limitations, and restrictions.
COTTON Other Tank Mixes	Preplant or Preemergence	1.7-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Apply as a broadcast spray before, during or after planting, but before crop emergence. • For improved residual control or burndown, PARAQUAT CONCENTRATE may be tank mixed with the following herbicides: o Caparol® Herbicide o Cotoran® Herbicide o Cotton-Pro® Herbicide o Diurone® o Dual MAGNUM® o Harmony Extra (Preplant Only) o Meturon® Herbicide o MSMA o Prowl® o Zorial® Herbicide • When tank mixing with Cotoran DF® or Meturon DF®, follow mixing instructions carefully, maintain constant agitation, and see Order of Tank Mixing section in respective

					labels. • When tank mixing with any of the herbicides listed above, always refer to respective product label(s) for weeds controlled, rates of applications, directions for use, limitations, and restrictions.

COTTON Harvest Aid Use Restrictions

. Do not make more than 4 applications per year.

. Do not pasture livestock in treated fields or feed treated foliage.

. Do not apply to cotton within 3 days before harvest.

. Repeat application if necessary. Do not exceed a total of 1.3 pts./A as a harvest aid.

. May be tank mixed with other cotton harvest aid materials known to be effective by a local expert. Unless otherwise instructed in this label, always refer to the respective product label(s) for rates of applications, directions for use, limitations, and restrictions.

. • PARAQUAT CONCENTRATE can be applied in a tank mix with methyl parathion and/or Karate® insecticide. Always refer to the respective product label(s) for rates of applications, directions for use, limitations, and restrictions.

. Nodes above cracked bolls (NACB) timing is for guidance and is not intended to restrict the local expert in their use of the product.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
SOUTHERN COTTON Harvest aid for boll opening and defoliation (Tank mix with phosphate and chlorate defoliants).	Broadcast	5.4 fl. oz. + 1 pt. phosphate or 1 gal. chlorate	Ground: 10 gals. Air: 5 gals.	7	• Do not make more than 4 applications per year. • Development of immature bolls will be inhibited. • Apply when 80% or more of the bolls are open and the remaining bolls to be harvested are mature. • Always refer to tank mix product label(s) for rates of applications, directions for use, limitations, and restrictions.
SOUTHERN COTTON Additional tank mixes for boll opening and defoliation	Broadcast	2.1-3.3 fl. oz.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 4 applications per year. • PARAQUAT CONCENTRATE may be tank mixed with the following products to aid in defoliation and opening of mature bolls. Accelerate® Defoliant Def® Defoliant Dropp® Defoliant Ethephon Plant Growth Regulator Folex® Defoliant Harvade® Harvest Growth Regulator Prep™ PGR • Apply when 60% or more of the bolls are open and the remaining bolls to be harvested are mature. • Development of immature bolls will be inhibited. • Always refer to tank mix product label(s) for rates of applications,

					directions for use, limitations, and restrictions.
SOUTHERN COTTON Post Defoliation - To aid in opening of mature bolls and to desiccate green weeds.	Broadcast	0.7-1.3 pts.	Ground: 10 gals. Air: 5 gals.	3	• Do not make more than 4 applications per year. • If weed infestation is heavy or dense, use the higher specified rate. • Apply when 75% or more of bolls are open and remaining bolls to be harvested are mature. • Development of immature bolls will be inhibited. • After a defoliation or conditioning application has been made, delay desiccation application of PARAQUAT CONCENTRATE approximately 3-7 days to minimize leaf sticking.
WESTERN COTTON Harvest aid for boll opening and early defoliation	Broadcast	3.7-5.4 fl. oz. + phosphate or sodium chlorate; and/ or other compatible harvest aid products.	Ground: t0 gals. Air: 5 gals.	7	• Do not make more than 4 applications per year. • On rank cotton, use the higher specified rate. • Do not use more than 5.4 fl. oz of PARAQUAT CONCENTRATE for early defoliation as excessive desiccation may occur. • Early defoliation timing is when 60% or more of the bolls are open and the remaining bolls to be harvested are mature (approximately 4 NACB). • Development of immature bolls will be inhibited. • Do not use more than 4.0 lbs. of actual sodium chlorate defoliant per acre at this early defoliation timing. • Always refer to tank mix product label(s) for rates of applications, directions for use, limitations, and restrictions.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
WESTERN COTTON Harvest aid for boll opening and mid-to-late defoliation	Broadcast	5.4-10.7 fl. oz. alone or tank mix with sodium chlorate or phosphate defoliation and/ or other compatible harvest aid products.		3 (Alone)	• Do not make more than 4 applications per year. • Use the 10.7 fl. oz. rate of PARAQUAT CONCENTRATE in desert cotton areas or on rank vigorous cotton. • Mid-to-late defoliation timing is when 75% or more of the bolls are open and remaining bolls to be harvested are mature (approximately 3 or fewer NACB). • Development of immature bolls will be inhibited. • Always refer to tank mix product label(s) for rates of applications, directions for use, limitations, and restrictions.
COTTON Stripper or Spindle Harvested Harvest aid for defoliation and boll opening.	Broadcast	2.1-7.5 fl. oz.	Ground: 10 gals. Air: 5 gals.	3	• Do not make more than 4 applications per year. • BECAUSE OF EXTREMES IN ENVIRONMENTAL AND PLANT CONDITIONS, IT IS ADVISABLE TO APPLY THE RANGE OF RATES ON A SMALL BLOCK OF COTTON TO DETERMINE THE RATE THAT BEST FITS YOUR NEEDS. • Apply when 75% of the bolls are open and the remaining bolls to be harvested are mature. • DEVELOPMENT OF IMMATURE BOLLS WILL BE INHIBITED,

					SLICE BOLLS AND INSPECT THE SEED FOR MATURITY. • PARAQUAT CONCENTRATE may be applied alone or tank mixed with the following cotton harvest aids: Accelerate Defoliant® Def Defoliant® Dropp Defoliant® Ethephone Plant Growth Regulator Folex Defoliant® Harvade® Harvest Growth Regulator Prep™ PGR • May be applied as a split application. Do not exceed a total of 1.3 pts./A. • To avoid leaf sticking, apply PARAQUAT CONCENTRATE as a desiccant approximately 3-7 days after defoliant or a conditioning application and 7-14 days before harvest. • Cooler temperatures may cause a longer waiting period between application of PARAQUAT CONCENTRATE as a desiccant and defoliation/ conditioner. • South of Interstate-10 in Texas, where temperatures are typically higher during defoliation, lower rates in the range may be necessary. • Always refer to tank mix product label(s) for rates of applications, directions for use, limitations, and restrictions.
COTTON Late season desiccation	Broadcast	0.7-1.3 pts.	Ground: 10 gals. Air: 5 gals.	3	• Do not make more than 4 applications per year. • BECAUSE OF EXTREMES IN ENVIRONMENTAL AND PLANT CONDITIONS, IT IS ADVISABLE TO APPLY THE RANGE OF RATES ON A SMALL BLOCK TO DETERMINE THE RATE THAT BEST FITS YOUR NEEDS. • May be applied as a split application. Do not exceed a total of 1.3 pts./A. • Apply when 85% of the bolls are open and the remaining bolls to be harvested are mature (approximately 0 NACB). • Development of immature bolls will be inhibited. Slice bolls and inspect the seed for maturity. • South of Interstate-10 in Texas, where temperatures are typically higher during defoliation, lower rates in the range may be necessary. • Delay desiccation application of PARAQUAT CONCENTRATE approximately 3-7 days to minimize leaf sticking if a defoliation or conditioning application has been made. • May be tank mixed with other harvest aid materials known to the local expert to be effective.
COTTON Desiccation of regrowth	Broadcast	0.75-1.25 pts.	Ground: 10 gals. Air: 5 gals.	3	• Do not make more than 4 applications per year. • Use to desiccate regrowth occvrring after defoliation or desiccation. • Because regrowth is difficult to control, thorough coverage with the full listed rate is necessary. • Control is dependent on growing conditions and desiccation of small new regrowth may not always be complete. • If regrowth is excessive, use the higher specified rate.
EASTER LILIES (Field grown)	Preemergence	1.7-2.7 pts.	Ground: 10 gals.	—	• Do not exceed two applications per year.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
FALLOW LAND Prior to planting of any crops.	Preplant Broadcast to Fallow Land	1.0-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 2 applications per year, during the fallow period. • Fallow land may be between operations such as disking, ripping, plowing, leveling, irrigating or listing for ground preparation purposes. • Use for the control of weeds such as bluegrass, chickweed, henbit, downy brome, ryegrass, cheatgrass, dog fennel, tansy mustard, London rocket, sowthistle, rescue brome, wild oats, volunteer cereals and other winter annuals and for suppression of perennial weeds or sedges. • For weeds approaching the maximum size of 6", the higher specified rate may be used. • No more than 2 applications should be made during the fallow period. • Prior to application allow maximum weed emergence to maximize the benefit of this use. • Adhere to the preharvest intervals and other crop specific restrictions for planted crops elsewhere on this label.
GRASSES (For seed) (For use in seedbed preparation)	Preplant, at Planting, or Preemergence	1.3-2.7 pts.	Ground: 10 gals.	—	• Do not make more than 3 applications per year. • Prepare the seedbeds and allow weeds to germinate. • Apply PARAQUAT CONCENTRATE when weeds are at the 3-5 leaf stage. • Applications may be repeated as necessary (but only up to 3 applications per year) prior to grass emergence. • Do not graze treated areas or use the seed or straw from treated areas for animal feed or bedding.
GUAR (Preharvest desiccation)	Preharvest	1.3 pts.	Ground: f0 gals.	4	• Do not make more than 3 applications per year. • Apply after the pods are fully mature. • Do not graze treated areas or use the treated forage for animal feed.
GUAVA	Directed Spray	2.5 pts.	Ground: 10 gals.	—	• Do not make more than 4 applications per year. • Do not allow spray to contact green stems, fruit or foliage. • Do not graze treated areas. • Do not feed cover crops grown in treated areas to livestock. • Retreatment or spot spraying may be necessary for mature woody weeds, late-germinating weeds and grasses, and perennials.
HOPS (ID, OR, & WA only)	Directed Spray and/ or Suckering and Stripping.	t.3 pts.	Ground: 10 gals.	14	• Do not make more than 3 applications per year. • Retreatment of spot treatment may be necessary. • Do not allow spray to contact green stems, foliage, flowers, or cones as injury may result. • Do not allow animals to graze in treated hopyards.

					• Silage and hop vine refuse may be fed to livestock. • Spray only the basal 2 ft. of the vines for sucking and stripping. Repeat as necessary, but only up to 3 applications per season. • Experience with varieties other than Cascade, Yakima Cluster, and Bullion is limited. If using PARAQUAT CONCENTRATE on other varieties than these, test the use pattern on a small number of vines of each variety to determine sensitivity to injury. Do not use on unlisted varieties if unacceptable crop injury occurs. • Chemical Pruning: Spray when vines are less than 3 ft. tall to burn back existing vines and obtain even emergence of subsequent vines. • APPLICATION TO HOP VINES LESS THAN 6 FT. TALL MAY CAUSE UNACCEPTABLE INJURY.
LENTILS NOT REGISTERED FOR USE ON LENTILS IN CALIFORNIA.	Harvest Aid	0.8-1.3 pts.	Ground: 20 gals. Air: 7 gals.	7	• Do not make more than 2 applications per year. • Add nonionic surfactant at 0.25% v/v (2 pts./t00 gals.) of the finished spray volume. • May also be applied as a split application. DO NOT make more than 2 applications or exceed a total of 1.3 pts./A. The split application may improve coverage. • Apply when crop is mature and at least 80% of the pods are yellowing and mostly ripe with no more than 30% of the leaves still green in color. • DO NOT apply when weather conditions favor spray drift. To reduce spray drift a drift control agent may be included.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
MINT (Peppermint, Spearmint)	Dormant Season	t.3-2.0 pts.	Ground: 10 gals. Air 5 gals.	-	• Do not make more than 2 applications per year. • For suppression of weeds such as groundsel, chickweed, downy brome, bluegrass, Italian ryegrass, prickly lettuce. • Apply when crop is dormant before spring growth begins and when weeds are less than 6" tall. • Do not apply more than 2.0 pts./A per dormant season. • May be tank mixed with Sinbar® Herbicide (terbacil) weed killer for improved contact activity and residual control of Italian ryegrass, prickly lettuce and groundsel. Apply this tank mixture no more than once per season. Always refer to Sinbar (terbacil) label for weeds controlled, rates of applications, directions for use, limitations, and restrictions.
ONIONS (seeded) AND GARLIC	Preplant/ Preemergence	t.7-2.7 pts.	Ground: t0 gals.	60 200 (CA only)	• Do not make more than 1 application per year. • For heavy weed infestations or wild oat control use the higher specified rate. Apply only one application per season at the 2.7 pts./A dosage. • Allow maximum weed and grass emergence prior to treatment but apply prior to crop emergence. • Apply a maximum of 2.7 pts./A per season.
PASSION FRUIT	Directed Spray	2.5 pts.	Ground: 10 gals.		• Do not make more than 5 applications per year. • If bark is still green at application time, use a shield or wrap vine. • Pick all fruit off the ground prior to application if application is to be made during harvest season.

					• Do not allow animals to graze on treated areas. • It may be necessary to retreat or spot treat.
PEANUTS	Broadcast At Ground Crack Postemergence	5.4-10.8 ft. oz.	Ground: 10 gals.		• Do not make more than 2 applications per year. • To control or suppress small (1-6") emerged annual grass and broadleaf weeds in peanuts at ground crack. A second application may be made up to 28 days after ground crack. • For at ground crack use, PARAQUAT CONCENTRATE can be tank mixed with Pursuit® Herbicide or Dual MAGNUM for residual weed control. • Always refer to the Pursuit or Dual Magnum label for a list of weeds controlled, application rates, necessary precautions, and use limitations. • Make no more than 2 applications per season and do not apply a total of more than 10.8 fl. oz. of product per acre per season. • Crop foliage sprayed will be injured in the form of bronzing and crinkling, but the crop will recover and develop normally. • Do not apply by air.
PEANUTS Basagran® Herbicide Tank Mix	Broadcast At Ground Crack Postemergence	5.4-10.8 ft. oz.	Ground: 10 gals.	—	• Do not make more than 2 applications per year. • Tank mix PARAQUAT CONCENTRATE with Basagran at 1 pt./A. for improved control of weeds such as cocklebur, bristly starbur, smartweed and prickly sida. • This tank mix can be applied at the ground crack stage of peanuts. A second application may be made up to 28 days after ground crack. • Make no more than 2 applications per season and do not apply a total of more than 10.8 fl. oz. of product per acre per season. • Crop foliage sprayed will be injured in the form of bronzing and crinkling, but the crop will recover and develop normally. • Always refer to the Basagran label for weeds controlled, rates of applications, directions for use, limitations, and restrictions. • If peanuts show injury (leaf phytotoxicity and/or plant stunting) produced by any other herbicide treatment, do not apply this tank mix as injury may be enhanced and/or prolonged. • During prolonged periods of drought or unseasonably cold weather do not apply this tank mix as unsatisfactory weed control may result. • Do not apply by air.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
PEANUTS Butyrac® Herbicide or Butoxone® 200 Herbicide Tank Mix	Broadcast Postemergence	5.4-10.8 fl. oz.	Ground: 10 gals.	—	• Do not make more than 2 applications per year. • For improved control of weeds such as cocklebur, sicklepod and morningglory, tank mix PARAQUAT CONCENTRATE with 8-16 oz. (0.125-0.25 lbs.) per acre of Butyrac or Butoxone 200. • Do not apply a total of more than 10.8 fl. oz. of product per season and make no more than 2 applications per season • Crop foliage sprayed will be injured in the form of bronzing and crinkling but the crop will recover and develop normally.

					• Always refer to the Butyrac or Butoxone 200 labels for weeds controlled, rates of applications, directions for use, limitations, and restrictions. • Do not apply by air.
PIGEON PEAS (Puerto Rico only)	Directed Spray	1.3 pts.	Ground: 10 gals.	60	• Do not make more than t application per year. • Avoid contact with pigeon pea foliage. • Do not make more than 1 application per season. • Do not graze treated areas or feed treated forage to livestock. • Cannery waste can be fed to livestock.
PINEAPPLE	Directed Spray	1.3-2.7 pts.	Ground: 10 gals.	20	• Do not exceed 3 applications per season. • More mature weeds may require retreatment.
POTATO	Preplant or Preemergence Broadcast	0.7-1.3 pts.	Ground: 10 gals. Air: 5 gals.		• Do not make more than 3 applications per year. • Apply up to ground cracking stage, before potatoes have emerged.
POTATO (California, Washington, Oregon, Idaho only; used alone)	Preplant Broadcast	0.4-0.7 pts.	Ground: t0 gals. Air: 5 gals.		• Do not make more than 3 applications per year. • For control of volunteer barley in preformed seedbeds.
POTATO Fresh Market Only Preharvest vine killing and weed desiccation. For Use Only in the states of: Colorado, Delaware, Idaho, Illinois, Indiana, Kansas, Maine, Maryland, Massachusetts, Michigan, Minnesota, Nebraska, Nevada, New Jersey, New York, North Dakota, Ohio, Oregon, Pennsylvania, South Dakota, Utah, Washington, Wisconsin and Wyoming	Broadcast	0.7- t.3 pts.	Ground: 20 gals.	3	For **Fresh Market Potatoes Only.** (Fresh Market Potatoes include potatoes that are sent directly from the field to a consumer, grocery store, or processor for use.) • DD **NOT** make more than 2 applications per year. • **DO NOT** use on potatoes that will be stored as tuber decomposition may result. • Potatoes must be harvested promptly after desiccation and processed or consumed immediately. • **DO NOT** apply to drought stressed potato vines. • **DO NOT** use to desiccate the vines of seed potatoes as seed pieces may fail to germinate and grow normally. • **DO NOT** pasture livestock in treated potato fields. • **DO NOT** exceed 2.6 pts./A per season. • Begin application when leaves begin to turn yellow. • Immature potato foliage is tolerant to PARAQUAT CONCENTRATE. However, desiccation will not be complete under this condition. • Use 1.3 pts./A rate where quick vine kill is desired. • For dense vine growth, use 2 applications of 0.6 pt/ A. Split applications must be applied a minimum of five days apart.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
RICE	Preplant or Preemergence Broadcast	Weeds 1-3": 1.3-t.7 pts. Weeds 3-6": 1.7-2.0 pts. Weeds 6": 2-2.7 pts.	Ground: t0 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Apply as a broadcast spray before, during or after planting, but before crop emergence. When vegetation is dense, use higher rates and spray volumes. • Seeding should be done with a minimum amount of soil disturbance. • This product will not control weeds and grasses emerging after application. Crop plants emerged at time of application will be killed. • PARAQUAT CONCENTRATE may be tank mixed with other herbicides registered for this use for improved or extended weed control. Always refer to the tank mix product label(s) for weeds controlled, rates of applications, directions for use, limitations, and restrictions. • Do not flood/flush within 48 hours of application in order to ensure complete kill of vegetation. If cool, cloudy and/or wet weather delays speed of kill, do not flood/flush until complete kill is evident.
SAFFLOWER	Preplant or Preemergence Broadcast or Banded Over Row	1.7-2.7 pts.	Ground: t0 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Apply before, during and after planting but before crop emergence.
SAFFLOWER (California only)	Preplant Broadcast	0.7 pt.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • For control of volunteer barley in preformed seedbeds.
SMALL GRAINS (Barley, wheat)	Preplant or Preemergence	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2 pts. Weeds 6": 2-2.7 pts.	Ground: 5 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year.
SMALL GRAINS (Wheat Only) Hoelon® 3EC Tank Mix	Preplant or Preemergence	Weeds 1-3": 1.3-t.7 pts. Weeds 3-6": 1.7-2 pts. Weeds 6": 2-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • A tank mix with Hoelon 3EC will improve grass control. • Apply when weeds are actively growing and 1-6" in height. Weeds 6 inches or taller may not be controlled. • Do not apply this tank mix to barley as crop injury may result. • Always refer to the Hoelon 3EC label for weeds controlled, rates of applications, directions for use, limitations, and restrictions.
SORGHUM (Grain)	Preplant/ Preemergence Broadcast or Band	Weeds 1-3": 1.3-t.7 pts. Weeds 3-6": 1.7-2 pts. Weeds 6": 2-2.7 pts.	Ground: 10 gals. Air: 5 gals.	48 (grain) 20 (forage)	• Do not make more than 3 applications per year. • To allow maximum weed and grass emergence, seedbeds should be formed as far ahead of planting as possible • Seeding should be done with a minimum amount of soil disturbance.

SORGHUM (Grain) Atrazine & 2,4-D ester [Low Volatile] Tank Mix	Preplant or Preemergence	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2 pts. Weeds 6": 2-2.7 pts.		48 (grain) 20 (forage)	• Do not make more than 3 applications per year. • PARAQUAT CONCENTRATE may be tank mixed with Atrazine for improved preemergence or residual weed control. The addition of 2,4-D ester (Low Volatile) may assist in the suppression of perennial and annual broadleaf weeds emerged at the time of application. Always refer to the specific product label(s) for weeds controlled, rates of applications, directions for use, limitations, and restrictions.
SORGHUM (Grain) Harmony® Extra Herbicide Tank Mix	Preplant	1.3-2.5 pts.	Ground: 10 gals.	48 (grain) 20 (forage)	• Do not make more than 3 applications per year. • For Improved weed control, PARAQUAT CONCENTRATE may be tank mixed with Harmony Extra. • Always refer to the Harmony Extra label for weeds controlled, rates of applications, directions for use, limitations, and restrictions.

Crop	PARAQUAT CONCENTRATE Use Pattern	Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
SORGHUM (Grain)	Postemergence Directed (Including Hooded or Shielded)	0.7-1.3 pts.	Ground: 10 gals.	48 (grain) 20 (forage)	• Do not make more than 2 applications per year. • Apply when weeds are actively growing. • Use the higher specified rate on larger or hard to control weeds. Weeds 6" or taller may not be controlled. • Severe damage and/or complete kill can occur if spray contacts sorghum plants. • Do not exceed 2 postemergence-directed applications or exceed a total of 5.3 pts. PARAQUAT CONCENTRATE per season. **HOODED OR SHIELDED SPRAYERS** • To avoid excessive crop phytotoxicity, use a hooded or shielded sprayer with skids or wheels on the spray boom to maintain spray height. • Apply by directing spray between the rows and by using hooded or shielded sprayers to prevent spray contact with crop plants. **DIRECTED SPRAY WITHOUT HOODED OR SHIELDED SPRAYERS** • Apply when sorghum is at least 12" tall when naturally standing. • Do not exceed 30 psi nozzle pressure or spray under conditions which may cause excessive drift. • Use precision directed-spray application equipment adjusted so that no more than the lower 3" of the sorghum stalk is contacted by the application spray. • Some crop injury will occur. The degree of injury is related to the precision of application and spraying conditions.
SOYBEANS	Preplant or Preemergence	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Do not exceed a total of 4.0 pts. of PARAQUAT CONCENTRATE per season. • Apply as a broadcast spray before, during or after planting, but before crop emergence. • PARAQUAT CONCENTRATE may be tank mixed with the following herbicides for improved burndown or residual control:

		Weeds 6": 2-2.7 pts.			2,4-DB Canopy Dual MAGNUM Goal Harmony Extra {Preplant Only} Lasso Lexone Linex Lorox Lorox Plus Prowl Pursuit Herbicide Scepter Herbicide Sencor Herbicide Surflan® Herbicide Turbo Herbicide • The rate of this product to be used in these tank mixtures is dependent on weed height and growing conditions. Where weed canopy is dense or under dry conditions, use the highest rate of PARAQUAT CONCENTRATE. Always refer to the respective product label(s) for a list of weeds controlled, rates of applications, directions for use, limitations, and restrictions. • The lower application rate may be used when weeds are less than 4" tall and a selective postemergence spray or cultivation will be made within 3 weeds after planting. • Seeding should be done with a minimum amount of soil disturbance. • Do not graze or harvest for forage or hay before the R3 stage of soybean development (early pod).
SOYBEANS 2,4-D ester (Low Volatile) Tank Mix	Preplant or Preemergence	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2 pts. Weeds 6": 2-2.7 pts.	Ground: 10 gals. Air: 5 gals.		• Do not make more than 3 applications per year. • Apply 2,4-D ester (Low Volatile) at 0.35-0.475 lbs. a.i./A at least 7 days prior to planting. • Apply 2,4-D ester (Low Volatile) at 0.475-0.95 lbs. a.i/A at least 30 days prior to planting. • Do not apply 2,4-D ester (Low Volatile) prior to planting soybeans if you are not able to accept the results of soybean injury including possible loss of stand and yield. • Do not use amine formulation as PARAQUAT CONCENTRATE activity may be reduced. • May be tank mixed with residual herbicides listed above. • Always refer to the 2,4-D ester (Low Volatile) label for weeds controlled, rates of application, directions for use, limitations, and restrictions.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
SOYBEANS	Postemergence Directed Spray (Includes Hooded or Shielded)	3.0-5.3 fl. oz.	Ground: 10 gals.	—	• Do not make more than 3 applications per year. • Apply when weeds are actively growing. • Use the lower rate of PARAQUAT CONCENTRATE for control of seedling johnsongrass, crabgrass, goosegrass, Brachiaria, Texas millet and pigweed less than 2" tall. • For control of 2-4" red rice, Brachiaria, barnyard grass, crabgrass, goosegrass, seedling johnsongrass, giant foxtail, and fall panicum, use 5.3 fl. oz. of PARAQUAT CONCENTRATE. • Use 5.3 fl. oz. of PARAQUAT

					CONCENTRATE for control of 2-3" sicklepod, purslane, pigweed, cutleaf ground cherry, and common ragweed. • Apply PARAQUAT CONCENTRATE at 5.3 fl. oz./A plus 0.2 lb. active ingredient per acre of a 2,4-D formulation for control of 2-4" grasses in mixture with common cocklebur, morningglory, and red rice. • Always refer to the 2,4-D label for weeds controlled, rates of applications, directions for use, limitations, and restrictions • Do not graze or harvest for forage or hay. • If necessary, make a second and final application 7-14 days later. **HOODED DR SHIELDED SPRAYERS** • Apply by directing spray between the rows and using hooded or shielded sprayers to prevent spray contact with crop plants. • Use the higher specified rate on larger (less than 6") or hard to control weeds. Weeds 6" or taller may not be controlled. • Severe damage and/or complete kill can occur if spray intentionally or accidentally (including drift of fine droplets) contacts the plants. **DIRECTED SPRAY WITHOUT HDDDED OR SHIELDED SPRAYERS** • Do not treat on soybeans that are less than 8" tall. • Use precision directed spray application equipment adjusted so that no more than the lower 3" of the soybean plant is contacted by the application spray. • Do not exceed 30 psi nozzle pressure or spray under conditions which may cause excessive drift. • Some crop injury will occur. The degree of injury is dependent upon the precision of application and spraying conditions.
SOYBEANS	Harvest Aid	5.4-10.7 fl. oz.	Ground: 20 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Indeterminant varieties: Applications should be made when at least 65% of the seed pods have reached a mature brown color or when seed moisture is 30% or less. Determinant varieties: Apply when plants are mature, i.e., beans are fully developed, 1/2 of leaves have dropped, and remaining leaves are yellowing. • Injury will occur on immature soybeans. • Mature cocklebur, especially drought-stressed plants, are tolerant to PARAQUAT CONCENTRATE and desiccation will not be complete. Always use the higher specified rate when treating cocklebur. • Do not apply within 15 days of harvest. • Do not graze or harvest for forage or hay.
STRAWBERRIES	Postemergence Directed Spray	1.3 pts.	Ground: 20 gals.	21	• Do not make more than 3 applications per year. • Direct spray between the rows, using shields to prevent spray contact with crop plants. • Do not allow spray to contact strawberry plants as injury or excessive residues may result. • Do not apply more than 3 times per season. • Do not graze livestock in treated areas.
SUGAR BEETS	Preplant or	1.3-2.7 pts.	Ground:	—	• Do not make more than 3 applications per year.

	Preemergence		10 gals. Air: 5 gals.		• For heavier weed infestations, use the higher label rate. • Seeding or transplanting should be done with a minimum amount of soil disturbance. • Crop plants emerged at time of application will be killed. • Can be used in fallow bed/stale seedbed for weed control. • Seedbeds or plantbeds should be formed as far ahead of treatment as possible to permit maximum weed emergence.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
SUGARCANE	Postemergence Directed Spray (includes Hooded or Shielded)			—	**Use Comments** • Do not make more than 2 applications per year, except applications made by air in Florida and Texas in which the maximum number of applications allowed is 1 per year. • Apply as a hooded, shielded or directed spray to avoid contact with cane foliage to prevent leaf burn and yield reduction. • If necessary, a second and final application can be made when new weed growth is 2-6" high. • Do not graze treated areas or feed treated forage to livestock.
—Florida—		1.3 pts.	Ground: 50 gals.	—	• Do not make more than 2 applications per year. • Optimum results can be obtained by applying in early spring (March-April) when weeds are small. • Do not apply after June 1 as cane growth may be stunted and yields reduced.
—Hawaii—		1.3 pts.	Ground: 20 gals.	—	• Do not make more than 2 applications per year. • Do not apply after cane rows have closed in.
—Louisiana—		0.7-2.0 pts.	Ground: 20 gals.	30	• Do not make more than 2 applications per year. • For tiller control, apply when tillers are less than 18" high. • For heavier weed infestations or tiller growth use the higher specified rate.
—Florida & Texas—	Harvest Aid	0.4-0.7 pts.	Air: 5 gals.	—	• Do not make more than 1 application per year. • Under cool, cloudy weather conditions use the higher specified rate. • Apply 3-14 days before burning and harvest.
SUNFLOWER	Preplant or Preemergence Broadcast or Banded Over Row	1.7-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Apply before, during, or after planting but before crop emergence.
SUNFLOWER	Preharvest Desiccation Broadcast	0.8-1.3 pts.	Ground: 10 gals. Air: 5 gals.	7	• Do not make more than 2 applications per year. • Apply when sunflower seeds reach physiological maturity (when seed moisture is 35% or lower). For many varieties, this is equivalent to the time when the back of the heads are yellow and the bracts are turning brown. • Do not graze treated areas or feed treated

					forage to livestock. • When crop stands or weed infestations are heavy, use the higher label rate.
TARO, DRYLAND (Hawaii Only)	Postemergence Directed Spray	t.3-2.1 pts.	Ground: t0 gals.	t80	• Do not make more than 2 applications per year. • Do not allow spray to contact the taro plants as injury may result. • Make the first application when weed growth is t-4" high. • Weeds emerging after the application will not be controlled. • A single re-treatment may be made; however, do not harvest dryland taro within 6 months of the last application.
TREE PLANTATION ESTABLISHMENT Deciduous and Conifers	Preplant Broadcast	t.3-2.7 pts.	Ground: 20 gals.	—	• Do not make more than 3 applications per year. • To allow maximum emergence of weeds prepare ground early. • Apply prior to planting. Plant with minimal soil disturbance. • For heavier weed infestations, use the higher application rate. • For improved burndown or residual control, tank mix PARAQUAT CONCENTRATE with other herbicides labeled for this use. • Always refer to the specific tank mix herbicide label(s) for weeds controlled, rates of applications, directions for use, limitations, and restrictions. • Do not apply in less than 20 gals./A as weed control will be reduced.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
TREES AND VINES Orchards Vineyards Windbreak, Shade & Ornamental Trees: Acerola Apples Apricots Avocados Bananas Beechnut Brazil nut Butternut Calamondin Cashew Cherries Chestnut Chinquapin Citrus citron Coffee Figs Filberts Grapefruit	Directed Spray	t.7- 2.7 pts.	Ground: t0 gals.	Apricots 28 Cherries 28 Figs 13 Kiwi Fruit 14 Nectarines 28 Olives t3 Peaches t4 Pistachios 7 Plums 28	• Do not make more than 5 applications per year, except for: Apricots, Cherries, Kiwi Fruit, Nectarines, Peaches, Plums, no more than 3 applications per year; Olives, no more than 4 applications and Pistachios, no more than 5 applications but only 2 applications after shells split. • Do not allow spray to make contact with green stems (except suckers), fruit or foliage. • Use the shield or wrap plant when spraying around young trees or vines. • Do not graze treated areas. • Do not feed covered crops grown in treated areas to livestock. • Do not apply when figs, nuts or olives to be harvested are on the ground. • For apricots - Do not harvest within 28 days after application and do not exceed 3 postemergence directed applications per season. • For cherries - Do not harvest within 28 days after application and do not exceed 3 postemergence directed applications per season. • For figs - Do not harvest within 13 days after application and do not exceed 5 postemergence directed applications per season. • For grapes - Treat when sucker growth is no more than 8" long. Late

Grapes Hickory nut Kiwi fruit Kumquat Lemon Lime Macadamia nuts Mandarin Nectarines Olives Orange (sour & sweet) Papayas Peaches Pears Pistachios Plums Prunes Pummeto Satsuma mandarin Walnuts Other shade and ornamental trees such as arborvitae, ash, elm, fir, oak, pine, etc.					season applications to weeds should be made to avoid contact with desirable foliage. • For kiwi fruit - Do not treat more than 3 times per year. • For mature woody weeds, perennial weeds, late germinating weeds and green suckers, retreatment or spot treatment may be necessary. • For nectarines - Do not harvest within 28 days after application and do not exceed 3 postemergence directed applications per season. • For olives - Do not harvest within 13 days after application and do not exceed 4 postemergence directed applications per season. • For peaches - Do not harvest within t4 days after application, and do not exceed 3 postemergence directed applications per season. • For pistachios - Do not exceed 2 applications after shells split. • For plums - Do not harvest within 28 days after application and do not exceed 3 postemergence directed applications per season.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
TREES AND VINES Tank Mixes	Directed Spray	1.7-2.7 pts.	Ground: t0 gals.	Always refer to other Tank Mix labels	• Do not make more than 5 applications per year, except for: Apricots, Cherries, Kiwi Fruit, Nectarines, Peaches, Plums, no more than 3 applications per year; Olives, no more than 4 applications and Pistachios, no more than 5 applications but only 2 applications after shells split. • This product may be tank mixed with registered residual herbicides listed below for combined emerged and residual weed control. PARAQUAT CONCENTRATE may be tank mixed with the following herbicides: Devrinol® Herbicide Goal® Karmex® Krovar® Herbicides Princep® Sinbar® Solicam® Herbicide

					Surflan® • Always refer to other herbicide labels for weeds controlled, rates of applications, directions for use, limitations, and restrictions.
TYFON (New Hampshire only)	Preplant Preemergence	1.7-2.7 pts.	Ground: 10 gals.	—	• Do not make more than 3 applications per year. • Seeding should be done with a minimum of soil disturbance. • Weeds and grasses emerging after treatment will not be controlled. • Crop plants emerged at time of application will be injured.
VEGETABLES (Seeded or Transplanted) Beans (Lima, Snap) Broccoli Cabbage Cantaloupe Carrots Cauliflower Chayote fruit Chinese cabbage Chinese waxgourd Citron melon Collards Cucumber Eggplant Gherkin Gourd, Edible Groundcherry Lettuce Momordica spp. Musk melons Peas Pepino Peppers Pumpkin Squash Sweet Corn Tomatillo Turnips Tomatoes Watermelons	Preplant Preemergence	1.3-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Seedbeds or plantbeds should be formed as far ahead of treatment as possible to permit maximum weed emergence. • Banded or broadcast treatment applications can be made before, during or after planting but prior to the crop emergence. • For heavier weed infestations, use the higher specified rate. • Seeding or transplanting should be done with a minimum amount of soil disturbance. • Crop plants emerged at time of application will be killed. • PARAQUAT CONCENTRATE can be used in fallow bed/stale seedbed for weed control alone or tank mixed with Goal®. Always refer to the Goal label for weeds controlled, rates of applications, directions for use, limitations, and restrictions. • Do not harvest tomatoes within 30 days after application.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions

VEGETABLES Eggplant Peppers Tomatoes	Directed Spray	1.3 pts.	Ground: 10 gals.	—	• Do not make more than 3 applications per year. • For control or suppression of emerged weeds between rows after crop establishment. • Use precision directed spray application equipment adjusted to prevent spray contact with crop plants. Do not exceed 30 psi nozzle pressure. Do not spray under conditions which may cause excessive drift. • Apply when weeds are succulent and weed growth is less than 6". • Do not apply more than 3 applications per season. • Do not allow animals to graze in 1reated areas. • Do not harvest tomatoes within 30 days after application.

VEGETABLES Tomatoes	After Final Harvest	1.6-2.5 pts.	Ground: 40-120 gals.	—	• Do not make more than 2 applications per year. • Apply in 40-120 gallons of water per acre (0.62-0.93 lb. a.i./A). • Add NIS containing 75% or more surface active agent at 0.125 v/v (1 pt./100 gals. spray solution). • To ensure maximum herbicide burndown, tomato vines should be thoroughly covered. • PARAQUAT CONCENTRATE may be deactivated and less efficacious when dirty or muddy water is used. • To aid in the removal of sweet potato whitefly, burn tomato vines with propane burners as soon as possible after the vines have dried down sufficiently. • DO NOT apply more than a total of 3 lbs. active ingredient (paraquat) per acre per season. • To minimize drift, do not use nozzles or nozzle configurations which produce fine spray droplets (mist).
VEGETABLES (California, Washington, Oregon, Idaho only) Lettuce Melon Sugar Beets Tomatoes	Broadcast	0.4-0.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 2 applications per year. • For control of volunteer barley in preformed seedbeds. • Do not harvest tomatoes within 30 days after application.
VEGETABLES Rhubarb	Dormant	1.7-2.7 pts.	Ground: 10 gals.	—	• Do not exceed 2 applications per year. • Apply during dormant season before buds in crown begin to grow.

RESIN SOAKING

Pines including Loblolly, Shortleaf, Longleaf, Slash, Virginia, Pond, Pitch, and Spruce Pines.

Tree Selection -Trees should be selected from stands on sites not subject to stress from periods of extreme drought stress because the desiccating effect of PARAQUAT CONCENTRATE is accentuated during drought, causing a reduction in the amount of oleoresin deposited in the xylem. Vigorous, non-stagnated natural or planted stands should be selected. Plan PARAQUAT CONCENTRATE treatments in stagnated or commercial timber stands, not sooner than three years after a commercial thinning.

Application Directions: To bring the treatment into contact with sapwood (or xylem), apply water-diluted PARAQUAT CONCENTRATE to an appropriate wound in the tree trunk.

Bark Streaks or Cuts: Use a standard or rotary bark hack or a chainsaw shipping tool (used in naval stores work) to remove a single 1-inch wide streak of bark about 1-2 ft. from ground level. Do not exceed 1/3 of the circumference of the tree. Serious girdling of the trunk and premature

death of the tree can result if multiple streaks or cuts are made. Apply a coarse spray (about 1.7-5.0 ml) PARAQUAT CONCENTRATE solution (1-5% cation, wt./wt. basis) to runoff to the exposed xylem, using a low-pressure sprayer. The amount of spray required per cut depends on tree circumference and the length of cut or streak. For example, for a 9-inch diameter tree, using 3 ml of 2 or 4% PARAQUAT CONCENTRATE solution will cover the 1-inch wide streak and will result in application of 60 or 120 mg per streak.

Time of Treatment: Less severe pine beetle infestation and longer tree life usually result during cool season treatments under non-drought seasons. However, resin soaking can occur from treatments made any time of the year.

Interval between Treatment and Tree Harvest: There should be at least a 6-month interval between application of PARAQUAT CONCENTRATE and tree harvest. However it is preferable the interval is from 12-24 months, even though intervals of over 6 months may not be possible under conditions of drought or serious pine beetle attacks possibly making early harvest necessary.

With this treatment, there is a potential for promoting beetle attack or causing premature death of the tree. At high dosage rates, desiccation of the xylem tissue, rather than the desired resin soaking, may occur.

Note: This type of treatment may reduce stem growth during between treatment and tree harvest.

Dilution Table for PARAQUAT CONCENTRATE (3.0 lbs. cation per gallon)	
Concentration of Cation Desired (wt./wt. basis)	Add the Following No. Gal. of Water to 2/3 Gallon of PARAQUAT CONCENTRATE
0.2%	118.8
0.5%	46.8
1.0%	22.9
2.0%	10.9
3.0%	6.9
4.0%	4.9
5.0%	3.7

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
CONSERVATION RESERVE, FEDERAL SET-ASIDE, CONSERVA-TION COMPLIANCE PROGRAMS (For use in compliance with the Federal Conservation	Broadcast	1.7-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • PARAQUAT CONCENTRATE may be tank mixed with other herbicides registered for this use for improved emerged weed control or extended weed control. Always refer to tank mix herbicide labels for weeds controlled, rates of applications, directions for use, limitations, and restrictions.

Reserve Program or Federal set-aside programs)					
NONCROP USES	Broadcast or Spot Treatment	1.7- 2.7 pts.	Ground: 10 gals.	—	• Repeat applications as necessary but do not make more than 10 applications per year. • To be used in noncrop areas including public airports, electric transformer stations, pipeline pumping stations, around commercial buildings, storage yards and other installations, and fence lines . • Avoid spray contact with the foliage of ornamentals or desired plants.
PASTURE RESEEDING For suppression of existing sod and undesirable emerged broadleaf weeds and grasses prior to or at time of planting grasses or forage legumes	Broadcast	0.7-1.3 pts.	Ground: 10 gals. Air: 5 gals.	See specific geographic recommenda-tion	• Do not make more than 3 applications per year. **West of Cascade and Sierra Nevada Mountains** • Apply in October through December after first fall rains and after weeds have emerged and sod has started new growth. • Apply on moderately to heavily grazed areas for best seeding results, • Do not use in heavy sod and weed growth areas. **East of Rocky Mountains** • Use the 1.3 pts rate on vigorous or coarse sod species such as bromegrass. • Apply prior to, or at time of seeding grasses or forage legumes. • Apply only1o grazed or mowed pastures not more than 3" in height at time of treatment. **Bermudagrass or Bahiagrass Sods** • Apply in late summer or early fall to sod not exceeding 3" in height. • For control of emerged little barley, apply in February or March before the mid-boot stage of little barley. **Bermudagrass and Coastal Bermudagrass Pastures** • Apply when bermudagrass is dormant. • For control of little barley, apply before the mid-boot stage. • Do not mow for hay until 40 days after treatment.
For control of endophyte-fungus-infected fescue forage legume/grass mixture and other grass pastures	Broadcast (Split Application)	0.7-1.3 pts. followed by 0.7-1.3 pts.	Ground: 10 gals.	—	• Do not make more than 2 applications per year. • Use split applications of 10-21 days apart if necessary. • Do not exceed 2.6 pts./A total in preparation for reseeding. • For spring plantings, the initial application of 0.7-1.3 pts. may be made the previous fall. • Apply when fescue is actively growing and no more than 4" high.

					• To reduce the infestation of endophyte-infested grass, do not allow fescue to go to seed starting with the preceding year's crop.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
*For prickly pear desiccation in pastures *Not for use in California	Spot Sprays	0.8 fl. oz. per gallon of water	Spray to wet weed foliage	—	• Do not make more than t0 applications per year. • Hand-held equipment such as knapsacks backpack sprayers, pump-up pressure sprayers, hand-guns, and hand-wands, can be used to direct the spray onto weed foliage so that the spray thoroughly wets foliage. • Mix 0.8 fl. oz. of PARAQUAT CONCENTRATE and 1/3 fl. oz. of a nonionic surfactant per gallon of water. • Completely and uniformly cover all green prickly pear foliage with spray. • Apply in May through September for best desiccation results. • Do not use more than 1.6 pts. of PARAQUAT CONCENTRATE per acre per year. • Apply only to pastures with no more than 3" of height at time of treatment. • Tank mix with Grazon® P+D Specialty® herbicide at a rate of t-2 fl. oz. per gallon of water for improved desiccation and perennial control of prickly pear. • Always refer to the Grazon P+D Specialty herbicide label for weeds controlled, rates of applications, directions for use, limitations, and restrictions.
*For Juniper Species leaf moisture reduction or desiccation prior to Prescribed burning of pastures *Not for use in California	Broadcast	t.3 pts.	Air: 5 gals.	—	• Do not make more than t0 applications per year. • Use only in conjunction with prescribed burning as recommended and monitored by local SCS or University and Extension Range Specialists. • Apply during hot, dry weather conditions (generally July and August). • Use 2% v/v nonionic surfactant in a minimum of 5 gal spray solution. • Monitor juniper leaf moisture content. Maximum leaf moisture reduction generally occurs 3-4 weeks after PARAQUAT CONCENTRATE application. • Significant soil moisture and/or wet weather conditions prior to or after application will decrease the potential for juniper crown burns. • Reduction in leaf moisture can be adversely affected by cool or humid weather conditions.. • Do not graze livestock after application or prior to burning.
*Native	Broadcast	1.0-1.25 pts.	Ground:	—	• Do not make more than 2 applications

Pastures *Not for use in California			10 gals. Air: 5 gals.		per year. • Apply PARAQUAT CONCENTRATE for control of downy and Japanese brome. • Apply in spring after 90% node tormation of brome species, but betore tull bloom. • Emerged native perennial grasses will be burned by application, but application after 90% node formation will allow adequate time for native grasses to recover and attain maximum growth in the use season. • Do not apply more than t.25 pts. PARAQUAT CONCENTRATE per year. • Apply only to pastures with no more than 3" ot height at time of treatment.

Conversion Table
PARAQUAT CONCENTRATE to Be Applied

Ounces	Pints	Lb. a.i.	Acres/Gallon
2.5	0.16	0.06	51.3
4.8	0.30	0.11	26.7
5.28	0.33	0.12	24.2
5.52	0.35	0.13	23.2
t0.00	0.63	0.23	12.8
t t.00	0.69	0.26	t t.6
1 t.20	0.70	0.26	11.4
12.00	0.75	0.28	10.7
t6.00	1.00	0.38	8.0
20.00	1.25	0.47	6.4
20.80	1.30	0.49	6.2
24.00	1.50	0.56	5.3
28.00	t.75	0.66	4.6
32.00	2.00	0.75	4.0
40.00	2.50	0.94	3.2
43.20	2.70	1.00	3.0

STORAGE AND DISPOSAL

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

Pesticide Storage: Store in original container and place in a locked storage area. Do not mix or store in containers, spray tanks, nurse tanks, or such systems made of aluminum or having aluminum fittings. Store at temperatures above 32°F. For Emergencies involving a Spill, Leak, Fire, Exposure, or Accident, contact: CHEMTREC at (800) 424-9300.

Pesticide Disposal: Pesticide wastes are acutely hazardous. Improper disposal of excess, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container Disposal:
Plastic containers of 5 gallons or less: Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available.

Triple rinse or pressure rinse (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. 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.

Mini-bulk Containers: Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller.

To clean the container before final disposal, empty the remaining contents from this container into application equipment or 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.

WARRANTY STATEMENT IMPORTANT NOTICE - Seller warrants that this product conforms to the chemical description and is reasonably fit for purposes stated on the label when used in accordance with the directions and instructions under normal conditions of use; **but neither this warranty nor any other warranty of merchantability or fitness for a particular purpose, express or implied, extends to the use contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to seller, and buyer assumes the risk of any such use.**

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SOURCE DYNAMICS

January 28, 2010

Document Processing Desk (APPL)
Office of Pesticide Programs (P7504C)
Environmental Protection Agency
Room S-4900, One Potomac Yard (South Building)
2777 S. Crystal Drive
Arlington, VA 22202

Attn: James Tompkins (PM 25), Herbicide Branch, Registration Division (7505P)

Dear Mr. Tompkins:

Subject: Paraquat Concentrate: EPA Reg. No. 82542-3
Replacement of Confidential Statement of Formula

The Agency first registered a paraquat dichloride product for Source Dynamics LLC on October 11, 2007 (Paraquat Concentrate, 82542-3). The Agency on January 21, 2010 registered a second paraquat product for Source Dynamics LLC (Dynaquat, EPA Reg. No. 82542-26). Both products contain 3 pounds per gallon paraquat cation, and the registered uses for these products are identical.

We request that the Agency immediately replace the existing CSF for 82542-3 with a CSF that is identical to 82542-26. It is understood that the current basic formulation CSF for Paraquat Concentrate, dated September 10, 2007, will immediately be "retired."

Please find enclosed the following:

Two copies of the revised label in which the reference to methanol has been removed. This label incorporates all of the revisions listed in your January 21, 2010 Notice of Pesticide Registration for Dynaquat, 82542-26.

8570-1 (Application for Pesticide Amendment)

8570-4 (the replacement Confidential Statement of Formula for 82542-3)

8570-34 (Certification with Respect to Citation of Data. No new information is submitted or referenced in support of this request.)

8570-35 (Data Matrix, which reflects our submissions of August 25, 2009 and January 12, 2010 in support of the registration of Dynaquat. This was recently reviewed, and no new information is referenced here.)

10039 E. Troon North Drive
Scottsdale, AZ 85262

Tel. 480.502.9289

Fax 480.502.9268

Our request is an administrative action only, and no new data need be reviewed in support of this action. This is a non-PRIA action. In view of the imminent arrival of the 2010 growing season, we urgently request that the Agency place this action on a "fast track" review.

Please contact me if you have any questions. We greatly appreciate the advice that Ms. Hope Johnson has given us regarding this proposal.

Sincerely,

Rufus Bastian, President
Source Dynamics LLC
rbastian@solerasd.com

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY 1200 Pennsylvania Avenue, N.W. WASHINGTON, D.C. 20460

Paperwork Reduction Act Notice: The public reporting burden for this collection of information is estimated to average 1.25 hours per response for registration and 0.25 hours per response for reregistration and special review activities, including time for reading the instructions and completing the necessary forms. Send comments regarding burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden to: Director, Collection Strategies Division (2822T), U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue, N.W., Washington, DC 20460. Do not send the completed form to this address.

Certification with Respect to Citation of Data

Applicant's/Registrant's Name, Address, and Telephone Number Source Dynamics LLC, 10039 E. Troon North Dr., Scottsdale, AZ 85262	EPA Registration Number/File Symbol 82542-3
Active Ingredient(s) and/or representative test compound(s) paraquat dichloride	Date January 28, 2010
General Use Pattern(s) (list all those claimed for this product using 40 CFR Part 158) terrestrial food and non-food crops	Product Name Paraquat Concentrate

NOTE: If your product is a 100% repackaging of another purchased EPA-registered product labeled for all the same uses on your label, you do not need to submit this form. You must submit the Formulator's Exemption Statement (EPA Form 8570-27).

I am responding to a Data-Call-In Notice, and have included with this form a list of companies sent offers of compensation (the Data Matrix form should be used for this purpose). ☐

SECTION I: METHOD OF DATA SUPPORT (Check one method only)

I am using the cite-all method of support, and have included with this form a list of companies sent offers of compensation (the Data Matrix form should be used for this purpose). ☐	I am using the selective method of support (or cite-all option under the selective method), and have included with this form a completed list of data requirements (the Data Matrix form must be used). ☒

SECTION II: GENERAL OFFER TO PAY

[Required if using the cite-all method or when using the cite-all option under the selective method to satisfy one or more data requirements] I hereby offer and agree to pay compensation, to other persons, with regard to the approval of this application, to the extent required by FIFRA. ☒

SECTION III: CERTIFICATION

I certify that this application for registration, this form for reregistration, or this Data-Call-In response is supported by all data submitted or cited in the application for registration, the form for reregistration, or the Data-Call-In response. In addition, if the cite-all option or cite-all option under the selective method is indicated in Section I, this application is supported by all data in the Agency's files that (1) concern the properties or effects of this product or an identical or substantially similar product, or one or more of the ingredients in this product; and (2) is a type of data that would be required to be submitted under the data requirements in effect on the date of approval of this application if the application sought the initial registration of a product of identical or similar composition and uses . I certify that for each exclusive use study cited in support of this registration or reregistration, that I am the original data submitter or that I have obtained the written permission of the original data submitter to cite that study. I certify that for each study cited in support of this registration or reregistration that is not an exclusive use study, either: (a) I am the original data submitter; (b) I have obtained the permission of the original data submitter to use the study in support of this application; (c) all periods of eligibility for compensation have expired for the study; (d) the study is in the public literature; or (e) I have notified in writing the company that submitted the study and have offered (i) to pay compensation to the extent required by sections 3(c)(1)(F) and/or 3(c)(2)(B) of FIFRA; and (ii) to commence negotiations to determine the amount and terms of compensation, if any, to be paid for the use of the study. I certify that in all instances where an offer of compensation is required, copies of all offers to pay compensation and evidence of their delivery in accordance with sections 3(c)(1)(F) and/or 3(c)(2)(B) of FIFRA are available and will be submitted to the Agency upon request. Should I fail to produce such evidence to the Agency upon request, I understand that the Agency may initiate action to deny, cancel or suspend the registration of my product in conformity with FIFRA. **I certify that the statements I have made on this form and all attachments to it 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.**

Signature	Date	Typed or Printed Name and Title
Rufus Bastian	Jan. 28, 2010	Rufus Bastian, President

Form Approved OMB Nos. 2070-0060; 2070-0057; 2070-0107; 2070-0122; 2070-0164

Form Approved OMB No. 2070-0060 **UNITED STATES ENVIRONMENTAL PROTECTION AGENCY 401 M Street, S.W. WASHINGTON, D.C. 20460**

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DATA MATRIX

Date January 28, 2010	EPA Reg. No./File Symbol 82542-3	Page 1 of 5
Applicant's/Registrant's Name & Address Source Dynamics LLC 10039 E. Troon North Drive Scottsdale, AZ 85262	Product Paraquat Concentrate	

Ingredient paraquat dichloride

Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
PRODUCT PROPERTIES DATA					
830.1550	product identification and disclosure of ingredients	47847201 47958401	Source Dynamics LLC	OWN	
830.1600	description of beginning materials	47847201	Source Dynamics LLC	OWN	
830.1620	description of manufacturing process	47847201	Source Dynamics LLC	OWN	
830.1650	description of formulation process	47847201	Source Dynamics LLC	OWN	
830.1670	discussion of formation of impurities	47847201	Source Dynamics LLC	OWN	
830.1700	preliminary analysis	47847201 47958401	Source Dynamics LLC	OWN	
830.1750	certification of limits	47847201 47958401	Source Dynamics LLC	OWN	
830.1800	enforcement analytical method	47847201	Source Dynamics LLC	OWN	
830.6302	color	47847201	Source Dynamics LLC	OWN	
830.6303	physical state	47847201	Source Dynamics LLC	OWN	
830.6304	odor	47847201	Source Dynamics LLC	OWN	

Signature Rufus Bastian	Name and Title: Rufus Bastian President, Source Dynamics LLC	Date: Jan. 28, 2010

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Applicant's/Registrant's Name & Address Source Dynamics LLC 10039 E. Troon North Drive Scottsdale, AZ 85262	Product Paraquat Concentrate	

Ingredient paraquat dichloride

Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
830.6313	stability to normal and elevated temperatures	47847201	Source Dynamics LLC	OWN	
830.6314	oxidation / reduction: chemical incompatibility	47847201	Source Dynamics LLC	OWN	
830.6315	flammability	47847201	Source Dynamics LLC	OWN	
830.6316	explodability	47847201	Source Dynamics LLC	OWN	
830.6317	storage stability	47847201	Source Dynamics LLC	OWN	
630.6319	miscibility	47847201	Source Dynamics LLC	OWN	
830.6320	corrosion characteristics	47847201	Source Dynamics LLC	OWN	
830.6321	dielectric breakdown voltage	47847201	Source Dynamics LLC	OWN	
830.7000	pH	47847201	Source Dynamics LLC	OWN	
830.7050	UV / visible absorption	47847201	Source Dynamics LLC	OWN	
830.7100	viscosity	47847201	Source Dynamics LLC	OWN	
830.7200	melting point	47847201	Source Dynamics LLC	OWN	
830.7220	boiling point	47847201	Source Dynamics LLC	OWN	
830.7300	density / relative density	47847201	Source Dynamics LLC	OWN	
830.7370	dissociation constant in water	47847201	Source Dynamics LLC	OWN	

Signature	Name and Title:	Date:
Rufus Bastian	Rufus Bastian President, Source Dynamics LLC	Jan. 28, 2010

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DATA MATRIX

Date January 28, 2010	EPA Reg. No./File Symbol 82542-3	Page 3 of 5
Applicant's/Registrant's Name & Address Source Dynamics LLC 10039 E. Troon North Drive Scottsdale, AZ 85262	Product Paraquat Concentrate	

Ingredient paraquat dichloride

Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
830.7550	octanol / water partition coefficient	47847201	Source Dynamics LLC	OWN	
830.7570	octanol / water partition coefficient	47847201	Source Dynamics LLC	OWN	
830.7840	water solubility	47847201	Source Dynamics LLC	OWN	
830.7860	solubility in organic solvents		not applicable: not a technical material		
830.7950	vapor pressure	47847201	Source Dynamics LLC	OWN	
ACUTE TOXICITY DATA					
870.1100	acute oral toxicity	47091107	Source Dynamics LLC	OWN	
870.1200	acute dermal toxicity	47091108	Source Dynamics LLC	OWN	
870.1300	acute inhalation toxicity	47091109	Source Dynamics LLC	OWN	
870.2400	acute eye irritation	46098805	Sinon	PAY	
870.2500	acute dermal irritation	47091110	Source Dynamics LLC	OWN	
870.2600	skin sensitization	47091111	Source Dynamics LLC	OWN	

Signature Rufus Bastian	Name and Title: Rufus Bastian President, Source Dynamics LLC	Date: Jan. 28, 2010

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DATA MATRIX

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Applicant's/Registrant's Name & Address Source Dynamics LLC 10039 E. Troon North Drive Scottsdale, AZ 85262	Product Paraquat Concentrate	

Ingredient paraquat dichloride

Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
			Agricultural Handlers Exposure Task Force	PAY	
			Griffin Corporation	PAY	
			Sinon USA, Inc.	PAY	
			Celsius Property B.V., Amsterdam (NL)	PAY	
Series 870 other: cite-all	Toxicology: generic data		Generic Endangered Species Task Force	PAY	
Series 810: cite-all	Product Performance: generic data				
Series 835: cite-all	Fate, Transport and Transformation: generic data				
Series 840: cite-all	Spray Drift: generic data	multiple			
Series 850: cite-all	Ecological Effects: generic data				
Series 860: cite-all	Residue Chemistry: generic data				
Series 875: cite-all	Occupational and Residential Exposure: generic data				

Signature	Name and Title: Rufus Bastian President, Source Dynamics LLC	Date: Jan. 28, 2010

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DATA MATRIX

Date January 28, 2010	EPA Reg. No./File Symbol 82542-3	Page 1 of 5
Applicant's/Registrant's Name & Address Source Dynamics LLC 10039 E. Troon North Drive Scottsdale, AZ 85262	Product Paraquat Concentrate	

Ingredient paraquat dichloride

Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
[redacted]					
			Source Dynamics LLC	OWN	
			Source Dynamics LLC	OWN	
			Source Dynamics LLC	OWN	
			Source Dynamics LLC	OWN	
			Source Dynamics LLC	OWN	
			Source Dynamics LLC	OWN	
			Source Dynamics LLC	OWN	
			Source Dynamics LLC	OWN	
			Source Dynamics LLC	OWN	
			Source Dynamics LLC	OWN	
			Source Dynamics LLC	OWN	

Signature	Name and Title:	Date:
Rufus Bastian	Rufus Bastian President, Source Dynamics LLC	Jan. 28, 2010

Form Approved OMB No. 2070-0060 **UNITED STATES ENVIRONMENTAL PROTECTION AGENCY 401 M Street, S.W. WASHINGTON, D.C. 20460**

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Applicant's/Registrant's Name & Address Source Dynamics LLC 10039 E. Troon North Drive Scottsdale, AZ 85262	Product Paraquat Concentrate	

Ingredient paraquat dichloride

Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
[redacted]			Source Dynamics LLC	OWN	
			Source Dynamics LLC	OWN	
			Source Dynamics LLC	OWN	
			Source Dynamics LLC	OWN	
			Source Dynamics LLC	OWN	
			Source Dynamics LLC	OWN	
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			Source Dynamics LLC	OWN	
			Source Dynamics LLC	OWN	
			Source Dynamics LLC	OWN	
			Source Dynamics LLC	OWN	

Signature	Name and Title:	Date:
Rufus Bastian	Rufus Bastian President, Source Dynamics LLC	Jan. 28, 2010

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DATA MATRIX

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Applicant's/Registrant's Name & Address Source Dynamics LLC 10039 E. Troon North Drive Scottsdale, AZ 85262	Product Paraquat Concentrate	

Ingredient paraquat dichloride

Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
[redacted]			Source Dynamics LLC	OWN	
			Source Dynamics LLC	OWN	
			Source Dynamics LLC	OWN	
			not applicable: not a technical material		
			Source Dynamics LLC	OWN	
			Source Dynamics LLC	OWN	
			Source Dynamics LLC	OWN	
			Source Dynamics LLC	OWN	
			Sinon	PAY	
			Source Dynamics LLC	OWN	
			Source Dynamics LLC	OWN	

Signature	Name and Title:	Date:
Rufus Bastian	Rufus Bastian President, Source Dynamics LLC	Jan. 28, 2010

Form Approved OMB No. 2070-0060 **UNITED STATES ENVIRONMENTAL PROTECTION AGENCY 401 M Street, S.W. WASHINGTON, D.C. 20460**

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Applicant's/Registrant's Name & Address Source Dynamics LLC 10039 E. Troon North Drive Scottsdale, AZ 85262	Product Paraquat Concentrate	

Ingredient paraquat dichloride

Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
[redacted]			Syngenta Crop Protection, Inc.	PAY	
			The Scotts Company	PAY	
			Monsanto Company	PAY	
			Crystal Chemical Company	PAY	
			Dow Agrosciences LLC	PAY	
			Makhteshim-Agan of North America, Inc.	PAY	
			Spray Drift Task Force	PAY	
			EDM Industries, Inc.	PAY	
			Sinon Corp.	PAY	
			Outdoor Residential Exposure Task Force	PAY	
			Agricultural Reentry Task Force	PAY	
			FIFRA Endangered Species Task Force	PAY	
			Helm Agro US, Inc.	PAY	
			Residential Exposure Joint Venture	PAY	

Signature	Name and Title: Rufus Bastian President, Source Dynamics LLC	Date: Jan. 28, 2010
Rufus Bastian		

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Date January 28, 2010	EPA Reg. No./File Symbol 82542-3	Page 5 of 5
Applicant's/Registrant's Name & Address Source Dynamics LLC 10039 E. Troon North Drive Scottsdale, AZ 85262	Product Paraquat Concentrate	

Ingredient paraquat dichloride

Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
[redacted]			Agricultural Handlers Exposure Task Force	PAY	
			Griffin Corporation	PAY	
			Sinon USA, Inc.	PAY	
			Celsius Property B.V., Amsterdam (NL)	PAY	
			Generic Endangered Species Task Force	PAY	

Signature Rufus Bastian	Name and Title: Rufus Bastian President, Source Dynamics LLC	Date: Jan. 28, 2010

2E

FAST-TRACK AMENDMENTS–Completeness Screening Checklis

Experts In-Processing Signature: [illegible]

EPA Reg. Number: 82542-23	EPA Receipt Date: 2/2/10		
	Check List Item	Yes	No	NA
1	**Application Form** (EPA Form 8570-1) –signed?	✓		
2	**Confidential Statement of Formula** (EPA Form 8570-29) – signed? Draft approved	✓		
3	**Certification with Respect to Citation of Data** (EPA Form 8570-34) signed?	✓		
4	**Formulator's Exemption Statement** (EPA Form 8570-27) - signed?		✓	
5	**Data Matrix** (EPA Form 8570-35) [Applicable, for adding me-too uses]	✓		
	a) Selective Method?			
	b) Cite-All Method? Applicant owns data or list only the companies offered to pay			
	c) Public copy of Matrix provided? See PR Notice 98-5			
6	**Is Label Included? (5 copies)**	✓		
	Comments: Repl. CSFs			

Receipt for Section 3

S: 866641

Regulatory Type: Product Registration - Section 3

Fee For Service: Yes No

Application Type: Amendment

Billable: Yes No

Company: 82542 SOURCE DYNAMICS, LLC

Print Letter

Enter More Information

Tracking

Risk Manager: Registration Division, Risk Management Team 25

Product #: 82542-3 Product Name: PARAQUAT CONCENTRATE

Me Too Section3: 82557-1 Me Too Product Name: PARAQUAT SL HERBICIDE

Application Date: 28-Jan-2010

OPP Rec'vd Date: 01-Feb-2010

Front End Date: 02-Feb-2010

Risk Manager Send Date: 04-Feb-2010

FFS Due Date:

Negotiated Due Date:

OPP Target Date:

Receipt Content	Des
CSF	
Paper Label	

View/Edit

Fast Track:

New Ingredient:

Receipt Description:

Replacement of CSFs

New Ingredient Request Date:

New Ingredient Received Date:

Form A: Signature Date: Form B: Signature Date:

I notified approved

CSF

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

February 4, 2010

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

RUFUS BASTIAN
SOURCE DYNAMICS, LLC
10039 E. TROON NORTH DRIVE
SCOTTSDALE, AZ 85262-

PRODUCT NAME: PARAQUAT CONCENTRATE
COMPANY NAME: SOURCE DYNAMICS, LLC
OPP IDENTIFICATION NUMBER:
EPA FILE SYMBOL: 82542-3
EPA RECEIPT DATE: 02/01/10

SUBJECT: RECEIPT OF AMENDMENT

DEAR REGISTRANT:

The Office of Pesticide Programs has received your application for an amendment and it has passed an administrative screen for completeness.

During the initial screen we determined that the application appears to qualify for fast track review. The package will now be forwarded to the Product Manager for review to determine its acceptability for fast track status.

If you have any questions, please contact Registration Division, Risk Management Team 25, at (703) 305-5697.

Sincerely,

P. E. Moore
Front End Processing Staff
Information Services Branch
Information Technology & Resources Management Division

Fee for Service

{866641,~

This package includes the following

- ○ New Registration
- ⊙ Amendment

☐ Studies? ☐ Fee Waiver?

☐ volpay % Reduction: ___

for Division

- ○ AD
- ○ BPPD
- ⊙ RD

Risk Mgr. 25

Receipt No. S-	866641
EPA File Symbol/Reg. No.	82542-26 3
Pin-Punch Date:	2/1/2010

☑ This item is NOT subject to FFS action.

Action Code:

Requested:

Granted:

Amount Due: $ _____

Inerts approved. S. Rock 2/16/10

Parent/Child Decisions:

☒ Inert Cleared for Intended Use ☐ Uncleared Inert in Product

Reviewer: [signature] Date: 2-3-10

Remarks:

Print Form

Please read instructions on reverse before completing form.

Form Approved. OMB No. 2070-0060. Approval expires 2-28

EPA

United States
Environmental Protection Agency
Washington, DC 20460

- [ ] Registration
- [x] Amendment
- [ ] Other

OPP Identifier Number

Application for Pesticide - Section I

1. Company/Product Number	2. EPA Product Manager	3. Proposed Classification
82542-3	J. Tompkins	[ ] None [x] Restricte
4. Company/Product (Name) Paraquat Concentrate	PM# 25	

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

Source Dynamics LLC
10039 E. Troon North Drive
Scottsdale, AZ 85262

[ ] *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. 82542-26

Product Name Dynaquat

Section - II

- [x] 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.)

Submission of an alternate CSF for 82542-3 which is identical to another Source Dynamics product, 82542-26. It is understood that the original CSF for 82542-3 (which contains methanol) will be "retired."

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		[ ] On Label [ ] On Labeling accompaning 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)
Rufus Bastian	President	480-502-9289

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
Rufus Bastian	President
4. Typed Name	**5. Date**
Rufus Bastian	January 28, 2010

SOURCE DYNAMICS

September 18, 2009

Document Processing Desk (APPL)
Office of Pesticide Programs (P7504C)
Environmental Protection Agency
Room S-4900, One Potomac Yard (South Building)
2777 S. Crystal Drive
Arlington, VA 22202

Attn: James Tompkins (PM 25), Herbicide Branch, Registration Division (7505P)

Dear Mr. Tompkins:

Subject: Paraquat Concentrate: EPA Reg. No. 82542-3: Final Label

Thank you for your letter of September 1, 2009. Please find enclosed a copy of the final label and Form 8570-1.

Sincerely,

Rufus Bastian

Rufus Bastian, President
Source Dynamics LLC
rbastian@solerasd.com

10039 E. Troon North Drive
Scottsdale, AZ 85262

Tel. 480.502.9289

Fax 480.502.9268

Print Form

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

EPA

United States
Environmental Protection Agency
Washington, DC 20460

[ ] Registration
[ ] Amendment
[X] Other

OPP Identifier Number

Application for Pesticide - Section I

1. Company/Product Number	2. EPA Product Meneger	3. Proposed Classification
82542-3	J. Tompkins	[ ] None [X] Restricte
4. Company/Product (Name) Paraquat Concentrate	PM# 25	

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

Source Dynamics LLC
10039 E. Troon North Drive
Scottsdale, AZ 85262

[ ] *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.
[X] Final printed labels in repsonse to Agency letter dated 9/1/2009
[ ] "Me Too" Application.
[ ] Other - Explain below.

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

Submission of final printed label.

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: [ ] Label [ ] Container

4. Size(s) Retail Container

5. Location of Label Directions: [ ] On Label [ ] On Labeling accompaning 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)
Rufus Bastian	President	480-502-9289

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.

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

2. Signature	3. Title
Rufus Bastian	President
4. Typed Name	**5. Date**
Rufus Bastian	Sept. 18, 2009

Source Dynamics September 18, 2009

Restricted Use Pesticide due to acute toxicity. For retail sale to and use only by certified applicators or persons under their direct supervision and only for those uses covered by the certified applicator's certification.

PARAQUAT CONCENTRATE

Defoliant and desiccant herbicide for the control of weeds and grasses and as a harvest aid.

NEVER PUT INTO FOOD, DRINK OR OTHER CONTAINERS.
IF SWALLOWED, TAKE IMMEDIATE ACTION AS PRESCRIBED IN FIRST AID.
SYMPTOMS ARE PROLONGED AND PAINFUL.
DO NOT USE OR STORE IN OR AROUND THE HOME.
DO NOT REMOVE CONTENTS EXCEPT FOR IMMEDIATE USE.
THE ODOR OF THIS PRODUCT IS FROM THE STENCHING AGENT WHICH HAS BEEN ADDED, NOT FROM PARAQUAT.

NET CONTENTS: (2.5. 5, 15, 30, 55 gallons and 85-300 gallon mini-bulk)

Active Ingredient:
paraquat dichloride (1,1'-dimethyl-4,4'-bipyridinium dichloride) 43.2%
Other Ingredients: 56.8%
Total: 100.0%

Contains 3.0 pounds paraquat cation per gallon as 4.14 pounds of dichloride salt per gallon. Contains emetic and stench (odor).

KEEP OUT OF REACH OF CHILDREN

DANGER/PELIGRO

POISON

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

EPA Reg. No. 82542-3
EPA Est. No. 75173-1-TWN
Product of Taiwan

Manufactured for: Source Dynamics, LLC
10039 E. Troon North Drive
Scottsdale, AZ 85262

FIRST AID **Contains Paraquat, a Bipyridinium Herbicide Have the product container or label with you when calling a poison control center or doctor, or going for treatment.**

If swallowed	• **Call a poison control center or doctor IMMEDIATELY for treatment advice.** • SPEED IS ESSENTIAL. Immediate medical attention is required. If available, give an absorbent such as activated charcoal, bentonite or Fuller's Earth. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to by a poison control center or doctor. • Do not give anything by mouth to an unconscious person.
If inhaled	• Move person to fresh air. • The odor of this product is from the stenching agent, which has been added, not from the paraquat. • If person is not breathing, call 911 or an ambulance. • Call a poison control center or doctor for treatment advice.
If in eyes	• Hold eye open and rinse slowly and gently with water for 15-20 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 on skin or **clothing**	• 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.

NOTE TO PHYSICIAN This product contains the toxic ingredient methanol at 7%. Administer either activated charcoal (100g for adults or 2g/kg body weight in children) or Fuller's Earth (15% solution; 1 liter for adults or 15ml/kg body weight in children). NOTE: The use of gastric lavage without administration of an absorbent has not shown any clinical benefit. Do not use supplemental oxygen. Eye splashes from concentrated material should be treated by an eye specialist after initial treatment. With the possibility of late onset corneal ulceration, it is advised that patients with paraquat eye injuries are reviewed by an eye specialist the day after first presentation. Use treatment that is appropriate for chemical burns. Intact skin is an effective barrier to paraquat; however, contact with irritated or cut skin or repeated contact with intact skin may result in poisoning.

HOT LINE NUMBERS:

SAFETY DATA AND INFORMATION 203-573-3303
TRANSPORTATION EMERGENCY (CHEMTREC) 800-424-9300

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER. May be fatal if swallowed. Fatal if inhaled. Corrosive. Causes irreversible eye damage. Wear protective eyewear. Do not breathe spray mist. Wear a dust mist respirator. Causes irreversible eye damage. Do not get in eyes or on clothing. Harmful if absorbed through skin. Avoid contact with skin. Prolonged or frequently repeated contact may cause allergic reactions in some individuals.

IMPORTANT: Inhalation is an unlikely route of exposure due to low vapor pressure and large spray droplet size, but mucosal irritation or nose bleeds may occur. Prolonged contact with this concentrated product can irritate your skin.

Personal Protective Equipment (PPE)

Applicators and other handlers (other than mixers and loaders) must wear:

Long-sleeved shirt and long pants; Chemical resistant gloves – Category A (e.g., barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinyl chloride (PVC) or viton); Shoes plus socks; Protective eyewear; NIOSH-approved particulate filtering respirator equipped with N, R or P class filter media. The respirator should have a NIOSH approval number prefix TC-84A. It is recommended that you require that respirator wearer to be fit tested, and trained in the use, maintenance and limitations of the respirator.

Mixers and loaders must wear:

Long-sleeved shirt and long pants
Chemical resistant gloves – Category A (e.g., barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinyl chloride (PVC) or viton)
Shoes plus socks
Chemical resistant apron
Face shield
NIOSH-approved particulate filtering respirator equipped with N, R or P class filter media. The respirator should have a NIOSH approval number prefix TC-84A. It is recommended that you require that respirator wearer to be fit tested, and trained in the use, maintenance and limitations of the respirator.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

Engineering Controls: When handlers use closed systems, enclosed cabs, or aircraft 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.

User Safety Recommendations

Users should:

Wash hands before eating, drinking, and 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.

ENVIRONMENTAL HAZARDS

This product is **toxic to wildlife**. 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 cleaning equipment or disposing of equipment wash waters.

Paraquat dichloride is **toxic to nontarget crops and plants** if off-target movement occurs because it desiccates all green plant tissue. Extreme care must be taken to ensure that off-target drift is minimized to the greatest extent possible. Refer to the local state laws, regulations, guidelines, and spray drift information contained in the Directions for Use section for proper application to avoid off-target movement. Do not apply under conditions involving possible drift to food, forage, or other plantings that might be damaged or the crops thereof rendered unfit for sale, use, or consumption. Do not apply when weather conditions favor drift from treated areas. To avoid drift, do not make aerial application during periods of thermal inversion.

PHYSICAL AND CHEMICAL HAZARDS

This product is **mildly corrosive to aluminum** and produces hydrogen gas which may form a highly combustible gas mixture. Do not mix or store in containers, spray tanks, nurse tanks, or such systems made of aluminum or having aluminum fittings. The product is compatible with high density polyethylene and rubber-lined steel containers.

DIRECTIONS FOR USE

Restricted Use Pesticide. It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

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. Do not use around home gardens, schools, recreational parks, golf courses or playgrounds.

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 interval. The requirements in this box only apply to use of this product that are covered by the Worker Protection Standard.

For preplant or preemergence (broadcast or banded), chemical fallow, postemergence directed spray applications, early postemergence broadcast in peanuts and dormant season applications, and "between cutting" applications in alfalfa: Do not enter or allow worker entry into treated areas during the **restricted-entry interval (REI) of 12 hours.**

For **harvest aid and desiccation application:** 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
Shoes plus socks
Protective eyewear
Chemical resistant gloves - Category A (e.g., barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinyl chloride (PVC) or viton).

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 others to enter the treated area until sprays have dried.

AVOID working in spray mist.
Keep all unprotected persons out of operating areas or vicinity where there may be danger of drift.

Certain states may require more restrictive reentry intervals; consult your State Department of Agriculture for further in formation.

USE INSTRUCTIONS AND INFORMATION

Do not apply this product through any type of irrigation system.

When PARAQUAT CONCENTRATE is applied at less than 10 gallons per acre finished spray volume, a drift control or spray deposition additive SHOULD be used. Refer to the additive label for rates of applications, directions for use, limitations, and restrictions.

SPRAY DRIFT INFORMATION

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

APPLICATOR. The interaction of many equipment- and weather-related factors determines the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following DRIFT MANAGEMENT REQUIREMENTS must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

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°. Where states have more stringent regulations, they shall be observed.

The applicator should be familiar with and take into account the information covered in the Aerial Drift Reduction Advisory Information.

Where states have more stringent regulations, they must be observed.

AERIAL DRIFT REDUCTION ADVISORY INFORMATION

Information on Droplet Size

The most effective way to reduce drift potential is to apply large droplets. The best management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environment conditions (see Wind, Temperature and Humidity, and Temperature Inversions).

Controlling Droplet Size

- **Volume** - Use high flow rate nozzles to apply the highest spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure** - Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- **Number of Nozzles** - Use the minimum number of nozzles that provide uniform coverage.
- **Nozzle Orientation** - Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- **Nozzle Type** - Use a nozzle that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

Boom Length

For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.

Application Height

Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making application at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

Swath Adjustment

When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase with increasing drift potential (higher wind, smaller drops, etc.).

Wind

Drift potential is lowest between wind speeds of 2-10 mph. However, many factors, including droplet size and equipment type, determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. NOTE:

Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

Temperature and Humidity

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

Temperature Inversions

Applications can not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes 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 are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They 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 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.

Sensitive Areas

The pesticide can only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

USE INFORMATION

PARAQUAT CONCENTRATE is a liquid formulation containing 3 lbs. of active ingredient per gallon. It contains a nontoxic odor to help prevent accidental ingestions. It also contains an emetic (an agent which will induce vomiting if the product is swallowed).

APPLICATION

PARAQUAT CONCENTRATE is a contact herbicide for control or suppression of a broad spectrum of emerged weeds including most small annual broadleaf and grass weeds. It can also be used to suppress perennial weeds by destroying green foliage and as a desiccant/ defoliant at harvest.

Complete coverage of target weeds is necessary to get good control because PARAQUAT CONCENTRATE is a contact-type herbicide. It is also necessary to obtain complete coverage for good crop desiccation and defoliations. Undesirable weed control and undesirable crop desiccation/defoliation will result if improper application technique and/or application to large, stressed, or mown weeds are made. Refer to the following details for specific application instructions.

Thorough coverage of all green foliage is required for efficacious weed control and crop defoliation and desiccation because PARAQUAT CONCENTRATE requires actively growing green plant tissue to function. Drought-stressed weeds, weeds with little green foliage (i.e., mowed or cut weeds), or mature woody bark of trees and vines are unaffected by application with PARAQUAT CONCENTRATE.

There is no residual soil activity to affect later-planted crops or later germinating weeds because clay and organic matter rapidly tie up PARAQUAT CONCENTRATE.

ROTATIONAL CROPS

After the last application PARAQUAT CONCENTRATE, all rotational crops may be planted immediately.

RAINFASTNESS

Rain occurring 30 minutes or more after application will have no effect on the activity of PARAQUAT CONCENTRATE because it is rapidly absorbed by the weed foliage.

USE OF A NONIONIC SURFACTANT OR CROP OIL CONCENTRATE

The following should always be added and be used at the recommended rates or there will be a reduction in efficacy of PARAQUAT CONCENTRATE.

Nonionic Surfactant: Either add a nonionic surfactant cleared for the current use containing 50-74% surface-action agent at 0.25% v/v (2 pts./100 gals.), or add nonionic surfactant containing 75% or more surface-active agent at 0.125% v/v (1 pt./100 gals.), of the finished spray volume for ground applications. Add a nonionic surfactant at 0.25% v/v (2 pts./100 gals.) of the finished spray volume for aerial applications.

Crop Oil Concentrate: For ground applications, add a nonphytotoxic crop oil concentrate cleared for the current use that contains15-20% approved emulsifier, with 1.0% v/v (1 gal./100 gals.) of the finished spray volume. Add 1 pt. of crop oil concentrate per acre for aerial applications. **For cotton harvest aid, do not use crop oil concentrate when using PARAQUAT CONCENTRATE.**

NOZZLE SELECTION

The use of flat-fan nozzles is the most effective application of PARAQUAT CONCENTRATE. The use of flood nozzles may result in a reduction of weed control due to inadequate coverage because they produce large uneven droplets.

Use only flat fan nozzles when spraying less than 20 gallons of spray carrier per acre using the following table.

Recommended Nozzle Type and Spray Pressures and Setup

	Nozzle Type	
	Flat Fan	**Flood**
Maximum Size	8	15
Spray Pressure (at nozzle)	30-50 psi	30-50 psi
Maximum Nozzle Spacing	30"	40"
Direction of Spray Pattern	Down	Down
Maximum Speed	10 mph	10 mph
Spray Overlap (at each edge)	30%	50%

Reduced control will result if nozzles, pressures, or setups differ from the above chart.

SPRAY CARRIER

PARAQUAT CONCENTRATE may be inactivated by muddy water, or suspension-type fertilizers containing clay. Therefore, always use clean water (free of mud or clay), clear liquid nitrogen, or complete clear liquid fertilizers as the carrier when spraying this product. Never use suspension-type fertilizers containing clay as the spray carrier. Always use the higher rate of PARAQUAT CONCENTRATE and surfactant if using a complete clear liquid fertilizer containing high phosphate levels as the spray carrier.

Note: It is important that when using liquid fertilizers such as 28% N as a spray carrier, that nonionic surfactant still be used with PARAQUAT CONCENTRATE. The use of liquid fertilizer carriers are not substitutes for surfactants.

RATES OF PARAQUAT CONCENTRATE

With each use, follow rates listed in the following tables. When weeds are larger or are dense,

use the higher label rates. For use as a harvest aid, use higher rate when crop vegetation is dense. Do not exceed 0.50 lbs. a.i./A in a minimum of 30 gallons of spray for broadcast applications with backpack sprayers.

SPRAY VOLUME

With each use, follow rates listed in the following tables. Spray volumes should be increased as necessary to obtain complete coverage of the target weed or plant without runoff from the foliage, because **the volumes listed are minimum volumes only.**

TARGET WEEDS SHOULD NOT EXCEED SIX INCHES IN HEIGHT WHEN SPRAYING LESS THAN 20 GALLONS OF SPRAY CARRIER PER ACRE.

APPLICATION TIMING

Applications should be made to small emerged weeds. Larger weeds more than 6 inches in height may be more difficult to control than weeds 1-6 inches in height. If possible, when green foliage is removed either from grazing or mowing, allow the weeds to grow 2-4 inches in height. Also, during harvesting forage or grain crops before spraying, weeds present in the field are also cut. Therefore, raise cutter bars as high as possible from the ground to cut stubble and weeds at a greater height, allowing sufficient green foliage to remain for applications.

BURNDOWN OF GRASS COVER CROPS OR VOLUNTEER CEREALS

The best results occur for control of grass cover crops or volunteer cereals when PARAQUAT CONCENTRATE is applied prior to tillering or after boot stage, especially with a wheat cover crop or volunteer wheat. Complete control may not be achieved with treatments made between tillering and boot stage. Complete control of perennial cover crops should not be expected.

ENVIRONMENTAL CONDITIONS

This product is active over a wide range of environmental conditions such as cool (below 55°F), cloudy or overcast weather. However these conditions will slow the activity of PARAQUAT CONCENTRATE.

SPOT SPRAYING

Refer to the following table if only small areas are to be sprayed with labeled applications.

Mixing Instructions for Small Quantities for Spot Spraying

If the Broadcast Rate Per Acre for PARAQUAT CONCENTRATE is:	Add The Following Amount of PARAQUAT CONCENTRATE to 1 Gallon of Water
1 1/2 pts.	1/3 fl. oz
2 pts.	3/8 fl. oz.
2 1/2 pts.	1/2 fl oz.
3 pts.	2/3 fl. Oz.

Add 1/3 - 1/2 fl. oz. of a nonionic surfactant for each gallon of spray at all times. Thoroughly wet the foliage, but not to the point of runoff when spot spraying in this manner.

TANK MIXING: ENHANCED BURNDOWN OF DIFFICULT-TO-CONTROL WEEDS AND FOR RESIDUAL WEED CONTROL

Photosynthetic Inhibitor Herbicides

To control difficult weeds, tank mix PARAQUAT CONCENTRATE with other herbicides. The addition of other photosynthetic inhibitors (PSI) herbicides will slow the activity of PARAQUAT CONCENTRATE. This allows PARAQUAT CONCENTRATE to thoroughly distribute throughout a

treated leaf, thus achieving better control than if PARAQUAT CONCENTRATE was applied alone.

PARAQUAT CONCENTRATE may be applied in tank mixture with the following PSI herbicides:

AAtrex® Herbicide

Atrazine Herbicide

Bicep Lite II

MAGNUM® Herbicide

Bicep MAGNUM® Herbicide

Canopy® Herbicide

Lariat® Herbicide

Lexone® Herbicide

Linex® Herbicide

Lorox® Herbicide

Lorox Plus™ Herbicide

Princep® Herbicide

Sencor® Herbicide

Always refer to the respective product label(s) for rates of applications, directions for use, limitations, and restrictions.

Improved Weed Control with PSI's

The addition of a PSI herbicide will help improve the control of difficult weeds listed below. Make a second application for best results.

Barnyardgrass
Broadleaf signalgrass
Cheatgrass
Cocklebur
Fall panicum
Giant ragweed
Knotweed
Kochia
Lambsquarters
Malva (cheeseweed)
Marestail
Morningglory
Pennsylvania smartweed
Perennial weeds (suppression only)
Prickly lettuce
Sedges
Tansymustard
Velvetleaf
Volunteer wheat

Improved Control of Perennial and Annual Broadleaf Weeds

Tank mixing with labeled 2,4-D ester (Low Volatile), 2,4-DB or Banvel® herbicide will help improve control when perennial broadleaf weeds such as Canada thistle, bindweed, dandelion, etc., or difficult to control annual broadleaf weeds such as giant ragweed or morningglory are present. Reduced grass control may be achieved when tank mixing the amine formulation of 2,4-D with PARAQUAT CONCENTRATE .

Order of Tank Mixing

It is advisable to tank mix PARAQUAT CONCENTRATE and other listed products as follows:

1. Fill spray tank 1/2 full with clean water or other approved carriers such as clear liquid fertilizer.
2. Begin tank agitation and continue throughout mixing and spraying.
3. Add dry formulations (WP, DF, etc.) to tank.
4. Add liquid formulations (SC, EC, L, etc.) to tank.
5. Add PARAQUAT CONCENTRATE to tank.
6. Add nonionic surfactant to tank.
7. Fill remainder of spray tank.

Always read other pesticide products labels for weeds controlled, rates of applications, directions for use, limitations, and restrictions.

It is advisable to perform a jar test to check physical compatibility when using different formulation of the herbicides listed on this label.

USE PRECAUTIONS AND RESTRICTIONS

EQUIPMENT

PARAQUAT CONCENTRATE is **corrosive to aluminum.** Thoroughly flush all aluminum spray equipment and aluminum aircraft structures that are exposed to spray solution or spray drift with water immediately after use.

The activity of PARAQUAT CONCENTRATE may be reduced in dry areas where dust stirred up by high winds or equipment tires can coat weed or plant leaves. Therefore, avoid applications in extremely dusty conditions.

LIMITATIONS AND PRECAUTIONS

- **Unless otherwise indicated, PARAQUAT CONCENTRATE will severely injure or kill crop plants emerged at time of application if they come in contact with sprays.**
- Do not pasture livestock in treated fields or feed treated foliage in cotton when this product is used as a cotton harvest aid.

- Do not use around home gardens, schools, recreational parks, or playgrounds.
- Do not apply to soils lacking clay minerals such as peat, muck, pure sand, artificial planting media for preplant and preemergence (to the crop) uses.
- To enable maximum weed and grass emergence prior to treatment, seedbeds and plantbeds should be formed as far ahead of planting and treatment as possible.
- Avoid disturbing soil when seeding or transplanting.
- Transplanted plants may become damage when they come in contact with plastic mulch used for preplant weed control and that has been treated with this product.To prevent damage to the crop, sufficient wash-off such as rainfall or sprinkler irrigation prior to planting may be needed.

• PARAQUAT CONCENTRATE will be ineffective in controlling or suppressing weeds and grasses that have emerged after application.

APPLICATION INSTRUCTIONS

Crop	Weeds	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
ALFALFA (California only) New seedlings		Broadcast	0.7-1.3 pts. See Table 2.	Ground: t0 gals. Air: 5 gals.	70	• Do not make more than one application per year. • Applications should be made during late winter or early spring. • Do not cut or harvest within 70 days after application. • Alfalfa foliage present at time of application will be burned. • Replanting may be needed due to the reduction of seedling stands. • Do not apply to seedling alfalfa grown for seed.
ALFALFA Preplant or Preemergence (No-till or conventional planting)		Broadcast or Banded Over Row	1.7-2.7 pts.	Ground: 10 gals. Air: 5 gals.		• Do not make more than 2 applications per year. • Apply prior to emergence of the crop. Avoid disturbing soil when seeding. • Crop plants emerged at time of application will be killed.
ALFALFA Dormant season Established plantings Region A - See table at end of Alfalfa section	Weeds, including bluegrass, chickweed, henbit, downy brome, ryegrass, cheatgrass, dogfennel, tansymustard, London rocket, sowthistle, rescue brome, wild oats, and other winter annuals; and suppression of perennial weeds.	Broadcast	1.3-2.0 pts.	Ground: 10 gals. Air: 5 gals.	42	• Do not make more than one application per year. • **Fall regrowth:** Do not apply if last fall cutting is greater than 6." • **Spring regrowth:** Do not apply if last cutting is greater than 2". • After the crop is dormant, apply to well-established stands that are at least 1-year old. • Yield of first cutting may be reduced because alfalfa foliage present at the time of application will be burned. • Do not cut or harvest within 42 days after application. • For improved and longer-lasting weed control, tank mix with metribuzin (Lexone or Sencor). Always refer to the metribuzin label for weeds controlled, rates of applications, directions for use, limitations, and restrictions.

Crop	Weeds	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
ALFALFA Dormant season Tank Mix with Velpar® L-Herbicide Region A - See table at end of Alfalfa section	Weeds including chickweed, downy brome and tansymustard.	Broadcast	0.7-1.3 pts.	Ground: 10 gals. Air: t0 gals.	42	• Do not make more than 2 applications per year. • When weeds are less than 4 inches tall apply at 0.7 pt. rate PARAQUAT CONCENTRATE • Mix PARAQUAT CONCENTRATE with 1-2 qts. of Velpar L per acre. • Use lower rate of Velpar L on loamy sands or sandy loams. Always refer to the Velpar L label for weeds controlled, rates of applications, directions for use, limitations, and restrictions. • During the dormant season, make one application to established alfalfa stands . • **Fall regrowth:** Do not apply if last fall cutting is greater than 6." • **Spring regrowth:** Do not apply if last cutting is greater than 2". • Do not apply to alfalfa during the first season after seeding. • Temporary chlorosis may occur on alfalfa regrowth. • Increased chances of crop injury may occur if stress which may be caused in part by low fertility, disease, insects, winterkill, over cutting, drought or frost. • DO NOT USE on gravelly or rocky soils, exposed subsoils, hardpan, sand or poorly drained alkaline soils as crop injury, including mortality, may result. • Do not cut or harvest within 42 days of application.
ALFALFA Dormant Season On established plantings: Region B: See table at end of Alfalfa section. On fall-seeded newly established stands less than 1-year-old: Region A - See table at end of	Weeds including London rocket, sowthistle, rescue brome, wild oats, chickweed, ryegrass, bluegrass, cheatgrass, dogfennel, tansymustard, henbit, downy brome, and other winter annuals; and suppression of perennial weeds	Broadcast	0.7-1.3 pts.	Ground: 10 gals. Air: 5 gals.	60	• Do not make more than one application per year. • Applications should be made before first spring cutting and during late fall or winter months after the last fall cutting. • **California:** Do not apply if **spring regrowth** after grazing or cutting is more than 2 inches in Orange and Riverside counties, and all counties north of these counties. • **All other areas within Region B:** Do not apply if regrowth after grazing or cutting is more than 2 inches. • Do not harvest within 60 days of application. • Applications to alfalfa that is not dormant, or has broken dormancy, may result in stand and/or yield reductions. Replanting

Alfalfa section On fall-seeded newly established stands less than 1-year-old: Region B - See table at end of Alfalfa section	California: Desiccation of weeds including bluegrass, ryegrass, shepherdspurse, chickweed, tansymustard, foxtail, sowthistle and groundsel.	Broadcast	0.7-1.3 pts.	Ground: 10 gals. Air: 5 gals.	60	may be necessary. Green alfalfa foliage present at time of application will be burned. • If there is a severe weed infestation, total hay yield of first cutting may be reduced in alfalfa fields and the reduction is typically directly proportionate to the loss of weed weight. • For improved and residual weed control in **dormant established (at least 1-year-old) alfalfa**, tank mix with metribuzin (Lexone or Sencor). Do not apply tank mix with metribuzin on alfalfa that is less than 1-year-old. • Always refer to metribuzin label for weeds controlled, rates of applications, directions for use, limitations, and restrictions. **California** • If ryegrass, shepherdspurse, sowthistle or groundsel are present, use higher rate.
		Broadcast	0.5-0.8 pts.	Ground: 10 gals. Air: 5 gals.	60	

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
ALFALFA (East of the Rocky Mountains) Between-cuttings treatment in established plantings. (Includes first year alfalfa)	Broadcast	0.7 pt.	Ground: 10 gals.	30	• Do not make more than 3 applications per year. • Control of weeds beyond the seedling stage and weed stubble cut off during harvest are less affected by this treatment. • Make applications immediately after alfalfa has been removed for hay or silage. • Do not treat more than 5 days after cutting. • A reduction in first year alfalfa stands and yeilds may occur if alfalfa is allowed to regrow more than 2 inches. • Burning of alfalfa foliage will occur at time of application. • Weed control may be reduced where moisture is limited such as in arid climates. • Do not cut or harvest within 30 days of application. • Apply as needed up to three times during the growing season in addition to a dormant application. • Do not make more than 2 applications during the first growing season of first-year alfalfa.
ALFALFA (For use only in the following states: ID, MT, NV, OR, UT, WA, WY) Desiccation of alfalfa to aid harvesting alfalfa seed	Broadcast	1.7-2.7 pts.	Ground: 20-25 gals. Air: 5-10 gals.	See Precautions	• Do not make more than 2 applications per year. • Do not harvest until at least 4 days after application. • Do not apply when weather conditions favor drift from treated areas. • Do not apply by ground equipment within 25 ft., or by air within 75 ft. of lakes; reservoirs; rivers; permanent streams; marshes or natural ponds; estuaries; and commercial fish farm ponds. • Use only on fields in production of alfalfa seed. Do not use on fields producing alfalfa for livestock feed. Do not use any portion of the treated field for human or animal feed, including seed, seed screenings, hay forage, or stubble • Do not cut current year's treated alfalfa seed crop

PARAQUAT CONCENTRATE/ Reglone Tank Mix	Broadcast	1.3-2.7 pts. PARAQUAT CONCENTRATE/ 2 pts. Reglone	Ground: 20-25 gals. Air: 5-10 gals.	See Precautions	for hay or forage. Do not graze current year's treated alfalfa seed crops. • Do not use treated alfalfa seed for sprouting. Tag all alfalfa seed treated with PARAQUAT CONCENTRATE/Reglone tank mix at processing plants with, "NOT FOR HUMAN CONSUMPTION". The grower is responsible for notifying the processing plants of any seed crop treated with PARAQUAT CONCENTRATE/Reglone tank mix. • Remove ALL PARAQUAT CONCENTRATE/Reglone treated alfalfa seed screenings from the market because all screening from alfalfa seed processing are prohibited from feed channels.

ALFALFA: New Seedlings - Suppression and control of broadleaf weeds and grasses in new alfalfa seedlings grown for hay (California only).		
	Rate/Acre*	
For Control of:	For Suppression	For Control
Annual Bluegrass	—	10.7-21.3 fl. oz.
Chickweed	—	10.7-21.3 fl. oz.
Fiddleneck (6 inches tall or less)	5.4-10.7 fl. oz.	21.3 fl. oz.
Red Maids (6 inches tall or less)	—	10.7-21.3 fl. oz.
Shepherdspurse	10.7-21.3 fl. oz.	—
Spikeweed (4 inches tall or less)	5.4 fl. oz.	10.7-16.0 fl. oz.
Volunteer Small Grain (8 inches tall or less)	5.4-10.7 fl. oz.	21.3 fl. oz.

*** Use the 5.4 fl. oz. rate only when alfalfa has at least 3 trifoliate leaves; use the 10.7 fl. oz. rate only when alfalfa has 6 trifoliate leaves; or use rates over 10.7 fl. oz. only when there are 9 trifoliate leaves.**

Alfalfa – Regions

REGION A
Alaska, California (counties of Del Norte, Siskiyou, Modoc, Shasta, Lassen, Plumas, Sierra and Nevada), Colorado, Connecticut, Delaware, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New York, North Dakota, Ohio, Oregon, Pennsylvania, Rhode Island, South Dakota, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming

REGION B
Alabama, Arizona, Arkansas, California (all other counties not listed in Region A), Florida, Georgia, Hawaii, Louisiana, Mississippi, New Mexico, North Carolina, Oklahoma, South Carolina, Tennessee, Texas

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
ALMONDS	Directed Spray	0.8-2.7 pts.	Ground: 10 gals.	—	• Do not make more than 5 applications per year. • Avoid allowing spray to contact green stems (except suckers) or foliage. • When spraying around young trees, use a shield or wrap plant . • Do not graze treated areas and do not feed cover crops grown in treated areas to livestock. • Do not apply when nuts to be harvested are on the ground. • Retreatment or spot treatments may be necessary for mature woody weeds, perennial weeds, late germinating weeds and green suckers.
ARTICHOKE (GLOBE)	Directed Spray	1.7-2.7 pts.	Ground: 20-100 gals.	1	• Do not make more than 3 applications per year. • Do not exceed 8 pts. per season. • Applications must be made at least 7 days apart. • Do not harvest within 24 hours of last application.
ASPARAGUS	Preplant or Preemergence Broadcast or Banded Over-Row	1.7-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Application should be made prior to emergence of the crop. • Emerged asparagus at time of application will be killed.
ASPARAGUS Preemergence to established plantings at least 2 years old.	Broadcast or Banded Over-Row	1.7-2.7 pts.	Ground: 10 gals.	6	• Do not make more than 3 applications per year. • Application should be made prior to emergence of the crop or after last harvest. • Emerged asparagus at time of application will be killed.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
BEANS, DRY **Not for use in California** Sweet lupin White sweet lupin White lupin Grain lupin Adzuki beans Asparagus beans Black beans Broad beans Field beans Garbanzo beans Kidney beans Lablab beans Moth beans Mung beans Navy beans Pinto beans Rice beans Tepary beans Urd beans Guar **PEAS, DRY** **Not for use in California** Blackeyed peas Chickpeas Cowpeas Crowder peas Southern peas Catjang	Harvest-Aid	0.8-1.3 pts.	Ground: 20 gals. Air: 5 gals.	7	• Do not make more than 2 applications per year. • Add nonionic spreader at 1 qt./100 gals.of spray mix. • Use a single application of the higher rate for vining type beans or bush type with lush growth. • May also be applied as a split application and may improve vine coverage. However do not make more than 2 applications per year or exceed a total of 1.3 pints per acre. • Apply when at least 80% of the pods are yellowing and mostly ripe and when leaves are no more than 40% of bush type peas or beans or 30% of vine type peas or beans are green . • Do not apply when weather conditions favor spray drift. To reduce drift, a drift control agent may be included. • Not registered for use in dry beans and dry peas in California.
BERRIES Blackberry Blueberry Boysenberry Currant Elderberry Gooseberry Huckleberry Loganberry Raspberry	Postemergence Directed Spray	1.3-2.7 pts.	Ground: 50 gals.	—	• Do not make more than 5 applications per year. • New canes or shoots can be injured. Therefore, apply before their emergence. • To prevent crop injury from spray mist, apply as a coarse spray.
CACAO	Directed Spray	1.3-2.7 pts.	Ground: 50-200 gals.	1	• Do not make more than 5 applications per year. • Apply when weeds are succulent and growth is from 1-6".

					• Retreatment or spot treatments may be necessary for mature woody weeds, late-germinating weeds and grasses and for perennials. • Use a shield for young trees to prevent sprays from contacting cacao plants, as injury may result. • Do not spray under windy conditions. • Do not graze treated areas or feed treated cover crops to livestock.
CASSAVAS, TANIERS & YAMS (Puerto Rico only)	Shielded Post Directed Spray	1.3 pts.	Ground: 50 gals.	90	• **Cassavas and Taniers:** Do not make more than 3 applications per year. • **Yams:** Do not make more than 2 applications per year. • Make applications when weeds are succulent and growth is 1-6". • Prevent spray from contacting crop to prevent injury to crop. • Do not spray under windy conditions. • Do not graze treated areas or feed treated forage to livestock.

Use Information for Chemical Fallow

- As the density of stubble, crop residue or weeds increases, use higher spray volumes for better coverage.
- To control volunteer wheat or downy brome, fall-applied treatments generally work best with PARAQUAT CONCENTRATE. If possible, tank mix with atrazine for maximum burndown and residual control.
- Apply from immediately after harvest up to emergence of the newly seeded crop as a broadcast or band treatment.
- Before applying PARAQUAT CONCENTRATE, cut wheat as high as possible to avoid cutting weeds too short, and allow the weeds to grow at least 2-3" after harvest .
- The addition of dicamba (Banvel) or 2,4-D ester (Low Volatile) may aid in the suppression of emerged perennial broadleaf weeds and large annual broadleaf weeds. Always refer to the product label(s) for 2,4-D ester (Low Volatile), Banvel, or residual herbicide for rates of applications, directions for use, limitations, and restrictions.
- It is permissible to tank mix with registered residual herbicide combinations other than listed for extended weed control during the fallow period
- Weeds and grasses emerging after application and weeds taller than 6 inches will not be controlled.
- Crop plants emerged at the time of application will be killed.
- The minimum total spray per acre allowed is 5 gallons for ground and 5 gallons for air applications.
- Apply 5-60 gallons spray mix per acre by ground application.

  When applying at less than 10 GPA by ground:
  Do not apply with floaters or exceed a speed of 10 mph.
  Apply with flat fan nozzles at 30-40 psi.
  Apply only in a tank mix with atrazine at a minimum of 0.5 lb. a.i./acre.
  By air: apply in 5-10 gallons of spray mix per acre.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
CHEMICAL FALLOW Continuous Wheat (2-3 month recropping interval)	Broadcast	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2.0 pts. Weeds 6": 2-2.7 pts.	Ground: 5 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Apply at least 45 days before seeding. • For volunteer wheat or downy brome control in spring, use at least 1.3 pts. of PARAQUAT CONCENTRATE per acre with a Photosynthetic Inhibitor Herbicide. • Refer to the section "Use Information for Chemical Fallow".
CHEMICAL FALLOW Wheat-Fallow-Wheat Rotations (Fall applied after harvest; seeded 12-14 months later)	Broadcast	Weeds 1-3": 1.3-t.7 pts. Weeds 3-6": 1.7-2 pts. Weeds 6": 2-2.7 pts.	Ground: 5 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Spray before weeds produce seeds. • Control of volunteer wheat and downy brome control increases when applications are made late August or early September. • For improved burndown and residual control of weeds, tank mix with Atrazine, Marksman® Herbicide, or Command® Herbicide. • For improved burndown and residual control of grass and broadleaf weed tank mix with metribuzin (Sencor 75DF). • Always refer to the respective product label(s) for rates of applications, directions for use, limitations, and restrictions. • Refer to the section "Use Information for Chemical Fallow".
CHEMICAL FALLOW Wheat-Fallow-Wheat Rotations (Spring applied: seeded 3-5 months later)	Broadcast	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2 pts. Weeds 6": 2-2.7 pts.	Ground: 5 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • To conserve moisture, application should be made March 1 to April 15, prior to spring rains. • Even though moisture loss is greater when applications are made after the boot stage, volunteer wheat is easier to control after this stage. • For volunteer wheat or downy brome control in spring, use at least 1.3 pts. of PARAQUAT CONCENTRATE per acre with a Photosynthetic Inhibitor Herbicide. • Refer to the section "Use Information for Chemical Fallow". • For burn down and residual control of grass and broadleaf weeds, tank mix with metribuzin, (Sencor 75DF/Lexone). • Always refer to1he label for metribuzin (Sencor 75DF/Lexone) for rates of applications, directions for use, limitations, and restrictions.
CHEMICAL FALLOW Wheat-Annual Crop[1]-Wheat Rotations (Fall applied in wheat stubble)	Broadcast	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2 pts. Weeds 6": 2-2.7 pts.	Ground: 5 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • For improved burndown and residual weed control, tank mix with Atrazine or Marksman. Always refer to the respective product label(s) for rates of applications, directions for use, limitations, and restrictions. • Make applications after wheat harvest and before weeds produce seed. • If grasses such as foxtails or barnyardgrass recover, respray before seed production. • Applications made late August to November help control volunteer wheat and downy brome. • Refer to the section "Use Information for Chemical Fallow".
CHEMICAL FALLOW Wheat-Annual Crop-Wheat Rotations (Spring applied prior to planting an annual crop[1])	Broadcast	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2 pts. Weeds 6": 2-2.7 pts.	Ground: 5 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • For enhanced burndown and residual weed control, tank mix with Atrazine. Always refer to the respective product label(s) for Atrazine for rates of applications, directions for use, limitations, and restrictions. • For volunteer wheat or downy brome control in spring, use at least 1.3 pts. of PARAQUAT CONCENTRATE per acre with a Photosynthetic Inhibitor Herbicide. • Refer to the section "Use Information for Chemical Fallow". • Refer to the Atrazine label for directions pertaining to soil pH and recropping intervals.

[1]Approved Annual Crops are grain sorghum, corn, wheat, or proso millet.

Crop	Weeds	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
CLOVER AND OTHER LEGUMES Including velvetbean, lespedeza, lupine, sainfoin, trefoil, vetch, crown vetch, and milk vetch. **Dormant Season** On established plantings: Region A – See table at end of Alfalfa section.	For desiccation of weeds, including London rocket, sowthistle, rescue brome, wild oats, chickweed, ryegrass, bluegrass, cheatgrass, dogfennel, tansymustard, henbit, downy brome, and other winter annuals, and suppression of perennial weeds. **California** • Use for desiccation of weeds including bluegrass, ryegrass, shepherdspurse, chickweed, tansy mustard, foxtail, sowthistle and groundsel.	Broadcast	1.3-2.1 pts.	Ground: t0 gals. Air: 5 gals.	60	• Do not make more than 1 application per year. • Applications should be made during late fall or winter months after the last cutting and before first spring cutting. • Do not apply if regrowth after grazing or cutting is more than 2". • Do not harvest within 60 days of application. • CAUTION: Stand and/or yield reductions may occur when applications are made to clover or other legumes that are not dormant, or have broken dormancy. Therefore, it may be necessary to replant. Burning will occur to green clover or other legumes' foliage present at the time of application. • Discoloration and temporary stunting will occur in clover or other legumes foliage present at the time of application. • If there is severe weed infestation, the total hay yield of first cutting may be reduced in clover or other legumes fields and is usually directly roportionate to the loss of weed weight. **In California:** • If ryegrass, shepherdspurse, sowthistle or groundsel are present, use higher rate.
On established plantings: Region B - See table at end of Alfalfa section.		Broadcast	0.7-1.3pts.	Ground: 10 gals. Air: 5 gals.	60	
On fall-seeded, newly established stands less than 1-year-old: Region A - See table at end of Alfalfa section.		Broadcast	0.7-1.3pts.	Ground: 10 gals. Air: 5 gals.	60	
On fall-seeded, newly		Broadcast	0.5-0.8 pts.	Ground: 10 gals. Air:	60	

established stands less than 1-year-old: Region B - See table at end of Alfalfa section.				5 gals.		

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
CORN FIELD CORN POPCORN SWEET CORN SEED CORN (Used alone)	Preplant or Preemergence Broadcast or Banded Over Row	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2 pts. Weeds 6": 2-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Includes field, fresh sweet, forage, fodder and popcorn. • To permit maximum weed and grass emergence, seedbeds should be formed as far ahead of planting and treatment as possible. • Seeding should be done with a minimum amount of soil disturbance. • Control will not occur when applications are made after weeds and grasses have emerged. However, crop plants emerged at time of application will be killed.
CORN Tank mixes for no-till/ reduced till	Preplant or Preemergence Broadcast or Banded Over Row	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2 pts. Weeds 6": 2-2.7 pts.	Ground: 10 gals. Air: 5 gals.*	—	• Do not make more than 3 applications per year. • Applications should be made as broadcast sprays before, during or after planting, but before crop emergence. • PARAQUAT CONCENTRATE may be tank mixed with the following herbicides for improved burndown or residual control: 2,4-D Ester (Low Volatile) Harness® Harness® Xtra AAtrex®/Atrazine Lasso® Herbicide Banvel® Linex® Bicep MAGNUM® Lorox® Bicep Lite II MAGNUM® Princep® Dual MAGNUM Prowl® Herbicide Frontier® Simazine® Guardsman® Surpass® EC Harmony® Extra Herbicide Surpass® 100 (Preplant only) Topnotch® • PARAQUAT CONCENTRATE may also be tank mixed with Ambush® insecticide. • Always refer to respective product label(s) for rates of applications, directions for use, limitations, and restrictions. * Always refer to respective product label(s) to confirm if these products can be applied by air.

FIELD CORN, POPCORN, SWEET CORN, SEED CORN	Postemergence Directed Spray (including Hooded or Shielded)	0.7-1.3 pts.	Ground: 10 gals.	—	• Do not make more than 3 applications per year. • Applications should be made when weeds are actively growing. • Use a higher rate on larger or hard to control weeds. Weeds 6" or taller may not be controlled. • Severe damage and/or complete kill can occur if spray contacts corn plants **For Hooded Or Shielded Sprayers:** • Use a hooded or shielded sprayer with skids or wheels on the spray boom to maintain spray height in order to prevent excessive crop phytotoxicity. • Apply by directing spray between the rows and using hooded or shielded sprayers to prevent spray contact with crop plants. **For Directed Spray Without Hooded Or Shielded Sprayers:** Corn height is measure from soil surface to top of whorl. • Apply when corn is at least 10" tall with nozzles arranged to spray no higher than the lower 3" of corn stalks. • Corn plants shorter than 10" may be injured and not recover. • For corn more than 20" tall: Arrange the nozzles to spray no higher than the lower 1/3 of the corn stalks. • Injury to corn foliage will occur if sprayed. However, corn will recover and develop normally.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
FIELD CORN, POPCORN, SEED CORN	Harvest Aid Broadcast	0.8-1.3 pts.	Ground: 20 gals. Air: 5 gals.	7	• Do not make more than one application per year. Make ONE (1) application at least 7 days prior to harvest. • Apply after the corn is mature. This is indicated by a black layer which forms at the base of the kernels. You may consult your local agricultural authority for help in identifying the black layer. • Add nonionic surfactant containing at least 75% surface active ingredient at 0.25% v/v. • To desiccate mature broadleaf weeds and grasses or broadleaf weeds and grasses that are taller than 18", use 1.3 pts. • Drought stressed plants, especially broadleaf weeds, can be difficult to kill, and desiccation may not be complete.
FIELD CORN ONLY (grain, fodder, forage)	Postemergence Directed Spray USDA Witchweed Eradication	1.3 pts.	Ground: 10 gals.	—	• Do not make more than 3 applications per year. • If regrowth occurs, initiate sprays in late June to early July and repeat in early August. • Follow application

	Program				instructions in post-emergence directed spray section above.
FIELD CORN ONLY (grain, fodder, forage) 2,4-D Amine AE Tank Mix	Postemergence Directed Spray USDA Witchweed Eradication Program	5.4 fl. oz. +0.5 lb. 2,4-D Amine AE	Ground: 10 gals.	—	• Do not make more than 3 applications per year. • Apply as directed spray onto grassy weeds and witchweed before witchweed blooms. If regrowth occurs, reapply. • Follow application instructions in post-emergence directed spray section above. • Always refer to respective product label(s) for rates of applications, directions for use, limitations, and restrictions.
COTTON (Used alone)	Preplant or Preemergence	1.7-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Apply prior to, during or after planting, but before crop emergence. • For fallow bed treatment, beds should be preformed to permit maximum weed and grass emergence prior to treatment. • Seeding should be done with a minimum of soil disturbance.
COTTON (California only; Used alone)	Preplant	5.4-10.7 fl. oz.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • For control of volunteer barley in preformed seedbeds.
COTTON Goal® Herbicide Tank Mix	Preplant or Fallow Bed Broadcast	1.7-2.7 pts.	Ground: or Air: 10 gals.	—	• Do not make more than 3 applications per year. • Always refer to the Goal label for weeds controlled, rates of applications, and directions for use, limitations, and restrictions.
COTTON Other Tank Mixes	Preplant or Preemergence	1.7-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Apply as a broadcast spray before, during or after planting, but before crop emergence. • For improved residual control or burndown, PARAQUAT CONCENTRATE may be tank mixed with the following herbicides: o Caparol® Herbicide o Cotoran® Herbicide o Cotton-Pro® Herbicide o Diurone® o Dual MAGNUM® o Harmony Extra (Preplant Only) o Meturon® Herbicide o MSMA o Prowl® o Zorial® Herbicide • When tank mixing with Cotoran DF® or Meturon DF®, follow mixing instructions carefully, maintain constant agitation, and see Order of Tank Mixing section in respective

					labels. • When tank mixing with any of the herbicides listed above, always refer to respective product label(s) for weeds controlled, rates of applications, directions for use, limitations, and restrictions.

COTTON Harvest Aid Use Restrictions

. Do not make more than 4 applications per year.

. Do not pasture livestock in treated fields or feed treated foliage.

. Do not apply to cotton within 3 days before harvest.

. Repeat application if necessary. Do not exceed a total of 1.3 pts./A as a harvest aid.

. May be tank mixed with other cotton harvest aid materials known to be effective by a local expert. Unless otherwise instructed in this label, always refer to the respective product label(s) for rates of applications, directions for use, limitations, and restrictions.

. • PARAQUAT CONCENTRATE can be applied in a tank mix with methyl parathion and/or Karate® insecticide. Always refer to the respective product label(s) for rates of applications, directions for use, limitations, and restrictions.

. Nodes above cracked bolls (NACB) timing is for guidance and is not intended to restrict the local expert in their use of the product.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
SOUTHERN COTTON Harvest aid for boll opening and defoliation (Tank mix with phosphate and chlorate defoliants).	Broadcast	5.4 fl. oz. + 1 pt. phosphate or 1 gal. chlorate	Ground: 10 gals. Air: 5 gals.	7	• Do not make more than 4 applications per year. • Development of immature bolls will be inhibited. • Apply when 80% or more of the bolls are open and the remaining bolls to be harvested are mature. • Always refer to tank mix product label(s) for rates of applications, directions for use, limitations, and restrictions.
SOUTHERN COTTON Additional tank mixes for boll opening and defoliation	Broadcast	2. t-3.3 fl. oz.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 4 applications per year. • **PARAQUAT CONCENTRATE** may be tank mixed with the following products to aid in defoliation and opening of mature bolls. **Accelerate®** Defoliant **Def®** Defoliant **Dropp®** Defoliant **Ethephon** Plant Growth Regulator **Folex®** Defoliant **Harvade®** Harvest Growth Regulator **Prep™ PGR** • Apply when 60% or more of the bolls are open and the remaining bolls to be harvested are mature. • Development of immature bolls will be inhibited. • Always refer to tank mix product label(s) for rates of applications,

					directions for use, limitations, and restrictions.
SOUTHERN COTTON Post Defoliation - To aid in opening of mature bolls and to desiccate green weeds.	Broadcast	0.7-1.3 pts.	Ground: 10 gals. Air: 5 gals.	3	• Do not make more than 4 applications per year. • If weed infestation is heavy or dense, use higher rate. • Apply when 75% or more of bolls are open and remaining bolls to be harvested are mature. • Development of immature bolls will be inhibited. • After a defoliation or conditioning application has been made, delay desiccation application of PARAQUAT CONCENTRATE approximately 3-7 days to minimize leaf sticking.
WESTERN COTTON Harvest aid for boll opening and early defoliation	Broadcast	3.7-5.4 fl. oz. + phosphate or sodium chlorate; and/ or other compatible harvest aid products.	Ground: 10 gals. Air: 5 gals.	7	• Do not make more than 4 applications per year. • On rank cotton, use higher rate. • Do not use more than 5.4 fl. oz of PARAQUAT CONCENTRATE for early defoliation as excessive desiccation may occur. • Early defoliation timing is when 60% or more of the bolls are open and the remaining bolls to be harvested are mature (approximately 4 NACB). • Development of immature bolls will be inhibited. • Do not use more than 4.0 lbs. of actual sodium chlorate defoliant per acre at this early defoliation timing. • Always refer to tank mix product label(s) for rates of applications, directions for use, limitations, and restrictions.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
WESTERN COTTON Harvest aid for boll opening and mid-to-late defoliation	Broadcast	5.4-10.7 fl. oz. alone or tank mix with sodium chlorate or phosphate defoliation and/ or other compatible harvest aid products.		3 (Alone)	• Do not make more than 4 applications per year. • Use the 10.7 fl. oz. rate of PARAQUAT CONCENTRATE in desert cotton areas or on rank vigorous cotton. • Mid-to-late defoliation timing is when 75% or more of the bolls are open and remaining bolls to be harvested are mature (approximately 3 or fewer NACB). • Development of immature bolls will be inhibited. • Always refer to tank mix product label(s) for rates of applications, directions for use, limitations, and restrictions.
COTTON Stripper or Spindle Harvested Harvest aid for defoliation and boll opening.	Broadcast	2.1-7.5 fl. oz.	Ground: 10 gals. Air: 5 gals.	3	• Do not make more than 4 applications per year. • BECAUSE OF EXTREMES IN ENVIRONMENTAL AND PLANT CONDITIONS, IT IS ADVISABLE TO APPLY THE RANGE OF RATES ON A SMALL BLOCK OF COTTON TO DETERMINE THE RATE THAT BEST FITS YOUR NEEDS. • Apply when 75% of the bolls are open and the remaining bolls to be harvested are mature. • DEVELOPMENT OF IMMATURE BOLLS WILL BE INHIBITED, SLICE BOLLS AND INSPECT THE SEED FOR

					MATURITY. • PARAQUAT CONCENTRATE may be applied alone or tank mixed with the following cotton harvest aids: Accelerate Defoliant® Def Defoliant® Dropp Defoliant® Ethephone Plant Growth Regulator Folex Defoliant® Harvade® Harvest Growth Regulator Prep™ PGR • May be applied as a split application. Do not exceed a total of 1.3 pts./A. • To avoid leaf sticking, apply PARAQUAT CONCENTRATE as a desiccant approximately 3-7 days after defoliant or a conditioning application and 7-14 days before harvest. • Cooler temperatures may cause a longer waiting period between application of PARAQUAT CONCENTRATE as a desiccant and defoliation/ conditioner. • South of Interstate-10 in Texas, where temperatures are typically higher during defoliation, lower rates in the range may be necessary. • Always refer to tank mix product label(s) for rates of applications, directions for use, limitations, and restrictions.
COTTON Late season desiccation	Broadcast	0.7-1.3 pts.	Ground: 10 gals. Air: 5 gals.	3	• Do not make more than 4 applications per year. • BECAUSE OF EXTREMES IN ENVIRONMENTAL AND PLANT CONDITIONS, IT IS ADVISABLE TO APPLY THE RANGE OF RATES ON A SMALL BLOCK TO DETERMINE THE RATE THAT BEST FITS YOUR NEEDS. • May be applied as a split application. Do not exceed a total of 1.3 pts./A. • Apply when 85% of the bolls are open and the remaining bolls to be harvested are mature (approximately 0 NACB). • Development of immature bolls will be inhibited. Slice bolls and inspect the seed for maturity. • South of Interstate-10 in Texas, where temperatures are typically higher during defoliation, lower rates in the range may be necessary. • Delay desiccation application of PARAQUAT CONCENTRATE approximately 3-7 days to minimize leaf sticking if a defoliation or conditioning application has been made. • May be tank mixed with other harvest aid materials known to the local expert to be effective.
COTTON Desiccation of regrowth	Broadcast	0.75-1.25 pts.	Ground: 10 gals. Air: 5 gals.	3	• Do not make more than 4 applications per year. • Use to desiccate regrowth occurring after defoliation or desiccation. • Because regrowth is difficult to control, thorough coverage with the full listed rate is necessary. • Control is dependent on growing conditions and desiccation of small new regrowth may not always be complete. • If regrowth is excessive, use higher rate.
EASTER LILIES (Field grown)	Preemergence	1.7-2.7 pts.	Ground: 10 gals.	—	• Do not exceed two applications per year.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
FALLOW LAND Prior to planting of any crops.	Preplant Broadcast to Fallow Land	1.0-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 2 applications per year, during the fallow period. • Fallow land may be between operations such as disking, ripping, plowing, leveling, irrigating or listing for ground preparation purposes. • Use for the control of weeds such as bluegrass, chickweed, henbit, downy brome, ryegrass, cheatgrass, dog fennel, tansy mustard, London rocket, sowthistle, rescue brome, wild oats, volunteer cereals and other winter annuals and for suppression of perennial weeds or sedges. • For weeds approaching the maximum size of 6", the higher rate may be used. • No more than 2 applications should be made during the fallow period. • Prior to application allow maximum weed emergence to maximize the benefit of this use. • Adhere to the preharvest intervals and other crop specific restrictions for planted crops elsewhere on this label.
GRASSES (For seed) (For use in seedbed preparation)	Preplant, at Planting, or Preemergence	1.3-2.7 pts.	Ground: 10 gals.	—	• Do not make more than 3 applications per year. • Prepare the seedbeds and allow weeds to germinate. • Apply PARAQUAT CONCENTRATE when weeds are at the 3-5 leaf stage. • Applications may be repeated as necessary (but only up to 3 applications per year) prior to grass emergence. • Do not graze treated areas or use the seed or straw from treated areas for animal feed or bedding.
GUAR (Preharvest desiccation)	Preharvest	1.3 pts.	Ground: 10 gals.	4	• Do not make more than 3 applications per year. • Apply after the pods are fully mature. • Do not graze treated areas or use the treated forage for animal feed.
GUAVA	Directed Spray	2.5 pts.	Ground: 10 gals.	—	• Do not make more than 4 applications per year. • Do not allow spray to contact green stems, fruit or foliage. • Do not graze treated areas. • Do not feed cover crops grown in treated areas to livestock. • Retreatment or spot spraying may be necessary for mature woody weeds, late-germinating weeds and grasses, and perennials.
HOPS (ID, OR, & WA only)	Directed Spray and/ or Suckering and Stripping.	1.3 pts.	Ground: 10 gals.	14	• Do not make more than 3 applications per year. • Retreatment of spot treatment may be necessary. • Do not allow spray to contact green stems, foliage, flowers, or cones as injury may result. • Do not allow animals to graze in treated hopyards.

					• Silage and hop vine refuse may be fed to livestock. • Spray only the basal 2 ft. of the vines for sucking and stripping. Repeat as necessary, but only up to 3 applications per season. • Experience with varieties other than Cascade, Yakima Cluster, and Bullion is limited. If using PARAQUAT CONCENTRATE on other varieties than these, test the use pattern on a small number of vines of each variety to determine sensitivity to injury. Do not use on unlisted varieties if unacceptable crop injury occurs. • Chemical Pruning: Spray when vines are less than 3 ft. tall to burn back existing vines and obtain even emergence of subsequent vines. • APPLICATION TO HOP VINES LESS THAN 6 FT. TALL MAY CAUSE UNACCEPTABLE INJURY.
LENTILS NOT REGISTERED FOR USE ON LENTILS IN CALIFORNIA.	Harvest Aid	0.8-1.3 pts.	Ground: 20 gals. Air: 7 gals.	7	• Do not make more than 2 applications per year. • Add nonionic surfactant at 0.25% v/v (2 pts./100 gals.) of the finished spray volume. • May also be applied as a split application. DO NOT make more than 2 applications or exceed a total of 1.3 pts./A. The split application may improve coverage. • Apply when crop is mature and at least 80% of the pods are yellowing and mostly ripe with no more than 30% of the leaves still green in color. • DO NOT apply when weather conditions favor spray drift. To reduce spray drift a drift control agent may be included.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
MINT (Peppermint, Spearmint)	Dormant Season	1.3-2.0 pts.	Ground: 10 gals. Air 5 gals.	-	• Do not make more than 2 applications per year. • For suppression of weeds such as groundsel, chickweed, downy brome, bluegrass, Italian ryegrass, prickly lettuce. • Apply when crop is dormant before spring growth begins and when weeds are less than 6" tall. • Do not apply more than 2.0 pts./A per dormant season. • May be tank mixed with Sinbar® Herbicide (terbacil) weed killer for improved contact activity and residual control of Italian ryegrass, prickly lettuce and groundsel. Apply this tank mixture no more than once per season. Always refer to Sinbar (terbacil) label for weeds controlled, rates of applications, directions for use, limitations, and restrictions.
ONIONS (seeded) AND GARLIC	Preplant/ Preemergence	1.7-2.7 pts.	Ground: 10 gals.	60 200 (CA only)	• Do not make more than 1 application per year. • For heavy weed infestations or wild oat control use the higher rate. Apply only one application per season at the 2.7 pts./A dosage. • Allow maximum weed and grass emergence prior to treatment but apply prior to crop emergence. • Apply a maximum of 2.7 pts./A per season.
PASSION FRUIT	Directed Spray	2.5 pts.	Ground: f0 gals.		• Do not make more than 5 applications per year. • If bark is still green at application time, use a shield or wrap vine. • Pick all fruit off the ground prior to application if application is to be made during harvest season.

					• Do not allow animals to graze on treated areas. • It may be necessary to retreat or spot treat.
PEANUTS	Broadcast At Ground Crack Postemergence	5.4-10.8 ft. oz.	Ground: 10 gals.		• Do not make more than 2 applications per year. • To control or suppress small (t-6") emerged annual grass and broadleaf weeds in peanuts at ground crack. A second application may be made up to 28 days after ground crack. • For at ground crack use, PARAQUAT CONCENTRATE can be tank mixed with Pursuit® Herbicide or Dual MAGNUM for residual weed control. • Always refer to the Pursuit or Dual Magnum label for a list of weeds controlled, application rates, necessary precautions, and use limitations. • Make no more than 2 applications per season and do not apply a total of more than 10.8 fl. oz. of product per acre per season. • Crop foliage sprayed will be injured in the form of bronzing and crinkling, but the crop will recover and develop normally. • Do not apply by air.
PEANUTS Basagran® Herbicide Tank Mix	Broadcast At Ground Crack Postemergence	5.4-10.8 ft. oz.	Ground: 10 gals.	—	• Do not make more than 2 applications per year. • Tank mix PARAQUAT CONCENTRATE with Basagran at 1 pt./A. for improved control of weeds such as cocklebur, bristly starbur, smartweed and prickly sida. • This tank mix can be applied at the ground crack stage of peanuts. A second application may be made up to 28 days after ground crack. • Make no more than 2 applications per season and do not apply a total of more than 10.8 fl. oz. of product per acre per season. • Crop foliage sprayed will be injured in the form of bronzing and crinkling, but the crop will recover and develop normally. • Always refer to the Basagran label for weeds controlled, rates of applications, directions for use, limitations, and restrictions. • If peanuts show injury (leaf phytotoxicity and/or plant stunting) produced by any other herbicide treatment, do not apply this tank mix as injury may be enhanced and/or prolonged. • During prolonged periods of drought or unseasonably cold weather do not apply this tank mix as unsatisfactory weed control may result. • Do not apply by air.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
PEANUTS Butyrac® Herbicide or Butoxone® 200 Herbicide Tank Mix	Broadcast Postemergence	5.4-10.8 fl. oz.	Ground: 10 gals.	—	• Do not make more than 2 applications per year. • For improved control of weeds such as cocklebur, sicklepod and morningglory, tank mix PARAQUAT CONCENTRATE with 8-t6 oz. (0.125-0.25 lbs.) per acre of Butyrac or Butoxone 200. • Do not apply a total of more than 10.8 fl. oz. of product per season and make no more than 2 applications per season • Crop foliage sprayed will be injured in the form of bronzing and crinkling but the crop will recover and develop normally.

					• Always refer to the Butyrac or Butoxone 200 labels for weeds controlled, rates of applications, directions for use, limitations, and restrictions. • Do not apply by air.
PIGEON PEAS (Puerto Rico only)	Directed Spray	1.3 pts.	Ground: 10 gals.	60	• Do not make more than 1 application per year. • Avoid contact with pigeon pea foliage. • Do not make more than 1 application per season. • Do not graze treated areas or feed treated forage to livestock. • Cannery waste can be fed to livestock.
PINEAPPLE	Directed Spray	1.3-2.7 pts.	Ground: 10 gals.	20	• Do not exceed 3 applications per season. • More mature weeds may require retreatment.
POTATO	Preplant or Preemergence Broadcast	0.7-1.3 pts.	Ground: 10 gals. Air: 5 gals.		• Do not make more than 3 applications per year. • Apply up to ground cracking stage, before potatoes have emerged.
PDTATO (California, Washington, Oregon, Idaho only; used alone)	Preplant Broadcast	0.4-0.7 pts.	Ground: 10 gals. Air: 5 gals.		• Do not make more than 3 applications per year. • For control of volunteer barley in preformed seedbeds.
POTATO Fresh Market Only Preharvest vine killing and weed desiccation. For Use Only in the states of: Colorado, Delaware, Idaho, Illinois, Indiana, Kansas, Maine, Maryland, Massachusetts, Michigan, Minnesota, Nebraska, Nevada, New Jersey, New York, North Dakota, Ohio, Oregon, Pennsylvania, South Dakota, Utah, Washington, Wisconsin and Wyoming	Broadcast	0.7-1.3 pts.	Ground: 20 gals.	3	For **Fresh Market Potatoes Only.** (Fresh Market Potatoes include potatoes that are sent directly from the field to a consumer, grocery store, or processor for use.) • **DO NOT** make more than 2 applications per year. • **DO NOT** use on potatoes that will be stored as tuber decomposition may result. • Potatoes must be harvested promptly after desiccation and processed or consumed immediately. • **DO NOT** apply to drought stressed potato vines. • **DO NDT** use to desiccate the vines of seed potatoes as seed pieces may fail to germinate and grow normally. • **DO NOT** pasture livestock in treated potato fields. • **DO NOT** exceed 2.6 pts./A per season. • Begin application when leaves begin to turn yellow. • Immature potato foliage is tolerant to PARAQUAT CONCENTRATE. However, desiccation will not be complete under this condition. • Use 1.3 pts./A rate where quick vine kill is desired. • For dense vine growth, use 2 applications of 0.6 pt/ A. Split applications must be applied a minimum of five days apart.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
RICE	Preplant or Preemergence Broadcast	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2.0 pts. Weeds 6": 2-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Apply as a broadcast spray before, during or after planting, but before crop emergence. When vegetation is dense, use higher rates and spray volumes. • Seeding should be done with a minimum amount of soil disturbance. • This product will not control weeds and grasses emerging after application. Crop plants emerged at time of application will be killed. • PARAQUAT CONCENTRATE may be tank mixed with other herbicides registered for this use for improved or extended weed control. Always refer to the tank mix product label(s) for weeds controlled, rates of applications, directions for use, limitations, and restrictions. • Do not flood/flush within 48 hours of application in order to ensure complete kill of vegetation. If cool, cloudy and/or wet weather delays speed of kill, do not flood/flush until complete kill is evident.
SAFFLOWER	Preplant or Preemergence Broadcast or Banded Over Row	1.7-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Apply before, during and after planting but before crop emergence.
SAFFLOWER (California only)	Preplant Broadcast	0.7 pt.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • For control of volunteer barley in preformed seedbeds.
SMALL GRAINS (Barley, wheat)	Preplant or Preemergence	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2 pts. Weeds 6": 2-2.7 pts.	Ground: 5 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year.
SMALL GRAINS (Wheat Only) Hoelon® 3EC Tank Mix	Preplant or Preemergence	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2 pts. Weeds 6": 2-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • A tank mix with Hoelon 3EC will improve grass control. • Apply when weeds are actively growing and 1-6" in height. Weeds 6 inches or taller may not be controlled. • Do not apply this tank mix to barley as crop injury may result. • Always refer to the Hoelon 3EC label for weeds controlled, rates of applications, directions for use, limitations, and restrictions.
SORGHUM (Grain)	Preplant/ Preemergence Broadcast or Band	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2 pts. Weeds 6": 2-2.7 pts.	Ground: 10 gals. Air: 5 gals.	48 (grain) 20 (forage)	• Do not make more than 3 applications per year. • To allow maximum weed and grass emergence, seedbeds should be formed as far ahead of planting as possible • Seeding should be done with a minimum amount of soil disturbance.

SORGHUM (Grain) Atrazine & 2,4-D ester [Low Volatile] Tank Mix	Preplant or Preemergence	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2 pts. Weeds 6": 2-2.7 pts.		48 (grain) 20 (forage)	• Do not make more than 3 applications per year. • PARAQUAT CONCENTRATE may be tank mixed with Atrazine for improved preemergence or residual weed control. The addition of 2,4-D ester (Low Volatile) may assist in the suppression of perennial and annual broadleaf weeds emerged at the time of application. Always refer to the specific product label(s) for weeds controlled, rates of applications, directions for use, limitations, and restrictions.
SORGHUM (Grain) Harmony® Extra Herbicide Tank Mix	Preplant	1.3-2.5 pts.	Ground: 10 gals.	48 (grain) 20 (forage)	• Do not make more than 3 applications per year. • For improved weed control, PARAQUAT CONCENTRATE may be tank mixed with Harmony Extra. • Always refer to the Harmony Extra label for weeds controlled, rates of applications, directions for use, limitations, and restrictions.

Crop	PARAQUAT CONCENTRATE Use Pattern	Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
SORGHUM (Grain)	Postemergence Directed (Including Hooded or Shielded)	0.7-1.3 pts.	Ground: 10 gals.	48 (grain) 20 (forage)	• Do not make more than 2 applications per year. • Apply when weeds are actively growing. • Use higher rate on larger or hard to control weeds. Weeds 6" or taller may not be controlled. • Severe damage and/or complete kill can occur if spray contacts sorghum plants. • Do not exceed 2 postemergence-directed applications or exceed a total of 5.3 pts. PARAQUAT CONCENTRATE per season. **HOODED OR SHIELDED SPRAYERS** • To avoid excessive crop phytotoxicity, use a hooded or shielded sprayer with skids or wheels on the spray boom to maintain spray height. • Apply by directing spray between the rows and by using hooded or shielded sprayers to prevent spray contact with crop plants. **DIRECTED SPRAY WITHOUT HOODED OR SHIELDED SPRAYERS** • Apply when sorghum is at least 12" tall when naturally standing. • Do not exceed 30 psi nozzle pressure or spray under conditions which may cause excessive drift. • Use precision directed-spray application equipment adjusted so that no more than the lower 3" of the sorghum statk is contacted by the application spray. • Some crop injury will occur. The degree of injury is related to the precision of application and spraying conditions.
SOYBEANS	Preplant or Preemergence	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Do not exceed a total of 4.0 pts. of PARAQUAT CONCENTRATE per season. • Apply as a broadcast spray before, during or after planting, but before crop emergence. • PARAQUAT CONCENTRATE may be tank mixed with the following herbicides for improved burndown or residual control:

		Weeds 6": 2-2.7 pts.			2,4-DB Canopy Dual MAGNUM Goal Harmony Extra {Preplant Only} Lasso Lexone Linex Lorox Lorox Plus Prowl Pursuit Herbicide Scepter Herbicide Sencor Herbicide Surflan® Herbicide Turbo Herbicide • The rate of this product to be used in these tank mixtures is dependent on weed height and growing conditions. Where weed canopy is dense or under dry conditions, use the highest rate of PARAQUAT CONCENTRATE. Always refer to the respective product label(s) for a list of weeds controlled, rates of applications, directions for use, limitations, and restrictions. • The lower application rate may be used when weeds are less than 4" tall and a selective postemergence spray or cultivation will be made within 3 weeds after planting. • Seeding should be done with a minimum amount of soil disturbance. • Do not graze or harvest for forage or hay before the R3 stage of soybean development (early pod).
SOYBEANS 2,4-D ester (Low Volatile) Tank Mix	Preplant or Preemergence	Weeds t-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2 pts. Weeds 6": 2-2.7 pts.	Ground: 10 gals. Air: 5 gals.		• Do not make more than 3 applications per year. • Apply 2,4-D ester (Low Volatile) at 0.35-0.475 lbs. a.i./A at least 7 days prior to planting. • Apply 2,4-D ester (Low Volatile) at 0.475-0.95 lbs. a.i/A at least 30 days prior to planting. • Do not apply 2,4-D ester (Low Volatile) prior to planting soybeans if you are not able to accept the results of soybean injury including possible loss of stand and yield. • Do not use amine formulation as PARAQUAT CONCENTRATE activity may be reduced. • May be tank mixed with residual herbicides listed above. • Always refer to the 2,4-D ester (Low Volatile) label for weeds controlled, rates of application, directions for use, limitations, and restrictions.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
SOYBEANS	Postemergence Directed Spray (Includes Hooded or Shielded)	3.0-5.3 fl. oz.	Ground: 10 gals.	—	• Do not make more than 3 applications per year. • Apply when weeds are actively growing. • Use the lower rate of PARAQUAT CONCENTRATE for control of seedling johnsongrass, crabgrass, goosegrass, Brachiaria, Texas millet and pigweed less than 2" tall. • For control of 2-4" red rice, Brachiaria, barnyard grass, crabgrass, goosegrass, seedling johnsongrass, giant foxtail, and fall panicum, use 5.3 fl. oz. of PARAQUAT CONCENTRATE. • Use 5.3 fl. oz. of PARAQUAT

					CONCENTRATE for control of 2-3" sicklepod, purslane, pigweed, cutleaf ground cherry, and common ragweed. • Apply PARAQUAT CONCENTRATE at 5.3 fl. oz./A plus 0.2 lb. active ingredient per acre of a 2,4-D formulation for control of 2-4" grasses in mixture with common cocklebur, morningglory, and red rice. • Always refer to the 2,4-D label for weeds controlled, rates of applications, directions for use, limitations, and restrictions • Do not graze or harvest for forage or hay. • If necessary, make a second and final application 7-14 days later. **HOODED OR SHIELDED SPRAYERS** • Apply by directing spray between the rows and using hooded or shielded sprayers to prevent spray contact with crop plants. • Use higher rate on larger (less than 6") or hard to control weeds. Weeds 6" or taller may not be controlled. • Severe damage and/or complete kill can occur if spray intentionally or accidentally (including drift of fine droplets) contacts the plants. **DIRECTED SPRAY WITHDUT HOODED OR SHIELDED SPRAYERS** • Do not treat on soybeans that are less than 8" tall. • Use precision directed spray application equipment adjusted so that no more than the lower 3" of the soybean plant is contacted by the application spray. • Do not exceed 30 psi nozzle pressvre or spray under conditions which may cause excessive drift. • Some crop injury will occur. The degree of injury is dependent upon the precision of application and spraying conditions.
SOYBEANS	Harvest Aid	5.4-10.7 fl. oz.	Ground: 20 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Indeterminant varieties: Applications should be made when at least 65% of the seed pods have reached a mature brown color or when seed moisture is 30% or less. Determinant varieties: Apply when plants are mature, i.e., beans are fully developed, 1/2 of leaves have dropped, and remaining leaves are yellowing. • Injury will occur on immature soybeans. • Mature cocklebur, especially drought-stressed plants, are tolerant to PARAQUAT CONCENTRATE and desiccation will not be complete. Always use the higher rate when treating cocklebur. • Do not apply within 15 days of harvest. • Do not graze or harvest for forage or hay.
STRAWBERRIES	Postemergence Directed Spray	1.3 pts.	Ground: 20 gals.	21	• Do not make more than 3 applications per year. • Direct spray between the rows, using shields to prevent spray contact with crop plants. • Do not allow spray to contact strawberry plants as injury or excessive residues may result. • Do not apply more than 3 times per season. • Do not graze livestock in treated areas.
SUGAR BEETS	Preplant or	1.3-2.7 pts.	Ground:	—	• Do not make more than 3 applications per year.

	Preemergence		10 gals. Air: 5 gals.		• For heavier weed infestations, use the higher label rate. • Seeding or transplanting should be done with a minimum amount of soil disturbance. • Crop plants emerged at time of application will be killed. • Can be used in fallow bed/stale seedbed for weed control. • Seedbeds or plantbeds should be formed as far ahead of treatment as possible to permit maximum weed emergence.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
SUGARCANE	Postemergence Directed Spray (includes Hooded or Shielded)			—	Use Comments • Do not make more than 2 applications per year, except applications made by air in Florida and Texas in which the maximum number of applications allowed is 1 per year. • Apply as a hooded, shielded or directed spray to avoid contact with cane foliage to prevent leaf burn and yield reduction. • If necessary, a second and final application can be made when new weed growth is 2-6" high. • Do not graze treated areas or feed treated forage to livestock.
—Florida—		1.3 pts.	Ground: 50 gals.	—	• Do not make more than 2 applications per year. • Optimum results can be obtained by applying in early spring (March-April) when weeds are small. • Do not apply after June 1 as cane growth may be stunted and yields reduced.
—Hawaii—		1.3 pts.	Ground: 20 gals.	—	• Do not make more than 2 applications per year. • Do not apply after cane rows have closed in.
—Louisiana—		0.7-2.0 pts.	Ground: 20 gals.	30	• Do not make more than 2 applications per year. • For tiller control, apply when tillers are less than 18" high. • For heavier weed infestations or tiller growth use the higher rate.
—Florida & Texas—	Harvest Aid	0.4-0.7 pts.	Air: 5 gals.	—	• Do not make more than 1 application per year. • Under cool, cloudy weather conditions use higher rate. • Apply 3-14 days before burning and harvest.
SUNFLOWER	Preplant or Preemergence Broadcast or Banded Over Row	1.7-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Apply before, during, or after planting but before crop emergence.
SUNFLOWER	Preharvest Desiccation Broadcast	0.8-1.3 pts.	Ground: 10 gals. Air: 5 gals.	7	• Do not make more than 2 applications per year. • Apply when sunflower seeds reach physiological maturity (when seed moisture is 35% or lower). For many varieties, this is equivalent to the time when the back of the heads are yellow and the bracts are turning brown. • Do not graze treated areas or feed treated

					forage to livestock. • When crop stands or weed infestations are heavy, use the higher label rate.
TARD, DRYLAND (Hawaii Dnly)	Postemergence Directed Spray	1.3-2.1 pts.	Ground: 10 gals.	180	• Do not make more than 2 applications per year. • Do not allow spray to contact the taro plants as injury may result. • Make the first application when weed growth is t-4" high. • Weeds emerging after the application will not be controlled. • A single re-treatment may be made; however, do not harvest dryland taro within 6 months of the last application.
TREE PLANTATION ESTABLISHMENT Deciduous and Conifers	Preplant Broadcast	t.3-2.7 pts.	Ground: 20 gals.	—	• Do not make more than 3 applications per year. • To allow maximum emergence of weeds prepare ground early. • Apply prior to planting. Plant with minimal soil disturbance. • For heavier weed infestations, use the higher application rate. • For improved burndown or residual control, tank mix PARAQUAT CDNCENTRATE with other herbicides labeled for this use. • Always refer to the specific tank mix herbicide label(s) for weeds controlled, rates of applications, directions for use, limitations, and restrictions. • Do not apply in less than 20 gals./A as weed control will be reduced.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
TREES AND VINES Orchards Vineyards Windbreak, Shade & Dnnamental Trees: Acerola Apples Apricots Avocados Bananas Beechnut Brazil nut Buttemut Calamondin Cashew Cherries Chestnut Chinquapin Citrus citron Coffee Figs Filberts Grapefruit	Directed Spray	1.7- 2.7 pts.	Ground: 10 gals.	Apricots 28 Cherries 28 Figs t3 Kiwi Fruit 14 Nectarines 28 Olives 13 Peaches 14 Pistachios 7 Plums 28	• Do not make more than 5 applications per year, except for: Apricots, Cherries, Kiwi Fruit, Nectarines, Peaches, Plums, no more than 3 applications per year; Olives, no more than 4 applications and Pistachios, no more than 5 applications but only 2 applications after shells split. • Do not allow spray to make contact with green stems (except suckers), fruit or foliage. • Use the shield or wrap plant when spraying around young trees or vines. • Do not graze treated areas. • Do not feed covered crops grown in treated areas to livestock. • Do not apply when figs, nuts or olives to be harvested are on the ground. • For apricots - Do not harvest within 28 days after application and do not exceed 3 postemergence directed applications per season. • For cherries - Do not harvest within 28 days after application and do not exceed 3 postemergence directed applications per season. • For figs - Do not harvest within t3 days after application and do not exceed 5 postemergence directed applications per season. • For grapes - Treat when sucker growth is no more than 8" long. Late

Grapes Hickory nut Kiwi fruit Kumquat Lemon Lime Macadamia nuts Mandarin Nectarines Olives Orange (sour & sweet) Papayas Peaches Pears Pistachios Plums Prunes Pummelo Satsuma mandarin Walnuts Other shade and ornamental trees such as arborvitae, ash, elm, fir, oak, pine, etc.					season applications to weeds should be made to avoid contact with desirable foliage. • **For kiwi fruit** - Do not treat more than 3 times per year. • For mature woody weeds, perennial weeds, late germinating weeds and green suckers, retreatment or spot treatment may be necessary. • **For nectarines** - Do not harvest within 28 days after application and do not exceed 3 postemergence directed applications per season. • **For olives** - Do not harvest within 13 days after application and do not exceed 4 postemergence directed applications per season. • **For peaches** - Do not harvest within 14 days after application, and do not exceed 3 postemergence directed applications per season. • **For pistachios** - Do not exceed 2 applications after shells split. • **For plums** - Do not harvest within 28 days after application and do not exceed 3 postemergence directed applications per season.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
TREES AND VINES Tank Mixes	Directed Spray	1.7-2.7 pts.	Ground: 10 gals.	Always refer to other Tank Mix labels	• Do not make more than 5 applications per year, except for: Apricots, Cherries, Kiwi Fruit, Nectarines, Peaches, Plums, no more than 3 applications per year; Olives, no more than 4 applications and Pistachios, no more than 5 applications but only 2 applications after shells split. • This product may be tank mixed with registered residual herbicides listed below for combined emerged and residual weed control. PARAQUAT CONCENTRATE may be tank mixed with the following herbicides: Devrinol® Herbicide Goal® Karmex® Krovar® Herbicides Princep® Sinbar® Solicam® Herbicide

					Surflan® • Always refer to other herbicide labels for weeds controlled, rates of applications, directions for use, limitations, and restrictions.
TYFON (New Hampshire only)	Preplant Preemergence	1.7-2.7 pts.	Ground: 10 gals.	—	• Do not make more than 3 applications per year. • Seeding should be done with a minimum of soil disturbance. • Weeds and grasses emerging after treatment will not be controlled. • Crop plants emerged at time of application will be injured.
VEGETABLES (Seeded or Transplanted) Beans (Lima, Snap) Broccoli Cabbage Cantaloupe Carrots Cauliflower Chayote fruit Chinese cabbage Chinese waxgourd Citron melon Collards Cucumber Eggplant Gherkin Gourd, Edible Groundcherry Lettuce Momordica spp. Musk melons Peas Pepino Peppers Pumpkin Squash Sweet Corn Tomatillo Turnips Tomatoes Watermelons	Preplant Preemergence	1.3-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Seedbeds or plantbeds should be formed as far ahead of treatment as possible to permit maximum weed emergence. • Banded or broadcast treatment applications can be made before, during or after planting but prior to the crop emergence. • For heavier weed infestations, use the higher rate. • Seeding or transplanting should be done with a minimum amount of soil disturbance. • Crop plants emerged at time of application will be killed. • PARAQUAT CONCENTRATE can be used in fallow bed/stale seedbed for weed control alone or tank mixed with Goal®. Always refer to the Goal label for weeds controlled, rates of applications, directions for use, limitations, and restrictions. • Do not harvest tomatoes within 30 days after application.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions

VEGETABLES Eggplant Peppers Tomatoes	Directed Spray	1.3 pts.	Ground: 10 gals.	—	• Do not make more than 3 applications per year. • For control or suppression of emerged weeds between rows after crop establishment. • Use precision directed spray application equipment adjusted to prevent spray contact with crop plants. Do not exceed 30 psi nozzle pressure. Do not spray under conditions which may cause excessive drift. • Apply when weeds are succulent and weed growth is less than 6". • Do not apply more than 3 applications per season. • Do not allow animals to graze in treated areas. • Do not harvest tomatoes within 30 days after application.

VEGETABLES Tomatoes	After Final Harvest	1.6-2.5 pts.	Ground: 40-120 gals.	—	• Do not make more than 2 applications per year. • Apply in 40-120 gallons of water per acre (0.62-0.93 lb. a.i./A). • Add NIS containing 75% or more surface active agent at 0.125 v/v (1 pt./100 gals. spray solution). • To ensure maximum herbicide burndown, tomato vines should be thoroughly covered. • PARAQUAT CONCENTRATE may be deactivated and less efficacious when dirty or muddy water is used. • To aid in the removal of sweet potato whitefly, burn tomato vines with propane burners as soon as possible after the vines have dried down sufficiently. • DO NOT apply more than a total of 3 lbs. active ingredient (paraquat) per acre per season. • To minimize drift, do not use nozzles or nozzle configurations which produce fine spray droplets (mist).
VEGETABLES (California, Washington, Oregon, Idaho only) Lettuce Melon Sugar Beets Tomatoes	Broadcast	0.4-0.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 2 applications per year. • For control of volunteer barley in preformed seedbeds. • Do not harvest tomatoes within 30 days after application.
VEGETABLES Rhubarb	Dormant	1.7-2.7 pts.	Ground: 10 gals.	—	• Do not exceed 2 applications per year. • Apply during dormant season before buds in crown begin to grow.

RESIN SOAKING

Pines including Loblolly, Shortleaf, Longleaf, Slash, Virginia, Pond, Pitch, and Spruce Pines.

Tree Selection -Trees should be selected from stands on sites not subject to stress from periods of extreme drought stress because the desiccating effect of PARAQUAT CONCENTRATE is accentuated during drought, causing a reduction in the amount of oleoresin deposited in the xylem. Vigorous, non-stagnated natural or planted stands should be selected. Plan PARAQUAT CONCENTRATE treatments in stagnated or commercial timber stands, not sooner than three years after a commercial thinning.

Application Directions: To bring the treatment into contact with sapwood (or xylem), apply water-diluted PARAQUAT CONCENTRATE to an appropriate wound in the tree trunk.

Bark Streaks or Cuts: Use a standard or rotary bark hack or a chainsaw shipping tool (used in naval stores work) to remove a single 1-inch wide streak of bark about 1-2 ft. from ground level. Do not exceed 1/3 of the circumference of the tree. Serious girdling of the trunk and premature

death of the tree can result if multiple streaks or cuts are made. Apply a coarse spray (about 1.7-5.0 ml) PARAQUAT CONCENTRATE solution (1-5% cation, wt./wt. basis) to runoff to the exposed xylem, using a low-pressure sprayer. The amount of spray required per cut depends on tree circumference and the length of cut or streak. For example, for a 9-inch diameter tree, using 3 ml of 2 or 4% PARAQUAT CONCENTRATE solution will cover the 1-inch wide streak and will result in application of 60 or 120 mg per streak.

Time of Treatment: Less severe pine beetle infestation and longer tree life usually result during cool season treatments under non-drought seasons. However, resin soaking can occur from treatments made any time of the year.

Interval between Treatment and Tree Harvest: There should be at least a 6-month interval between application of PARAQUAT CONCENTRATE and tree harvest. However it is preferable the interval is from 12-24 months, even though intervals of over 6 months may not be possible under conditions of drought or serious pine beetle attacks possibly making early harvest necessary.

With this treatment, there is a potential for promoting beetle attack or causing premature death of the tree. At high dosage rates, desiccation of the xylem tissue, rather than the desired resin soaking, may occur.

Note: This type of treatment may reduce stem growth during between treatment and tree harvest.

Dilution Table for PARAQUAT CONCENTRATE (3.0 lbs. cation per gallon)	
Concentration of Cation Desired (wt./wt. basis)	Add the Following No. Gal. of Water to ⅔ Gallon of PARAQUAT CONCENTRATE
0.2%	118.8
0.5%	46.8
1.0%	22.9
2.0%	10.9
3.0%	6.9
4.0%	4.9
5.0%	3.7

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
CONSERVATION RESERVE, FEDERAL SET-ASIDE, CONSERVA-TION COMPLIANCE PROGRAMS (For use in compliance with the Federal Conservation	Broadcast	1.7-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • PARAQUAT CONCENTRATE may be tank mixed with other herbicides registered for this use for improved emerged weed control or extended weed control. Always refer to tank mix herbicide labels for weeds controlled, rates of applications, directions for use, limitations, and restrictions.

Reserve Program or Federal set-aside programs)					
NONCROP USES	Broadcast or Spot Treatment	1.7- 2.7 pts.	Ground: 10 gals.	—	• Repeat applications as necessary but do not make more than 10 applications per year. • To be used in noncrop areas including public airports, electric transformer stations, pipeline pumping stations, around commercial buildings, storage yards and other installations, and fence lines . • Avoid spray contact with the foliage of ornamentals or desired plants.
PASTURE RESEEDING For suppression of existing sod and undesirable emerged broadleaf weeds and grasses prior to or at time of planting grasses or forage legumes	Broadcast	0.7-1.3 pts.	Ground: 10 gals. Air: 5 gals.	See specific geographic recommenda-tion	• Do not make more than 3 applications per year. **West of Cascade and Sierra Nevada Mountains** • Apply in October through December after first fall rains and after weeds have emerged and sod has started new growth. • Apply on moderately to heavily grazed areas for best seeding results, • Do not use in heavy sod and weed growth areas. **East of Rocky Mountains** • Use the 1.3 pts rate on vigorous or coarse sod species such as bromegrass. • Apply prior to, or at time of seeding grasses or forage legumes. • Apply only to grazed or mowed pastures not more than 3" in height at time of treatment. **Bermudagrass or Bahiagrass Sods** • Apply in late summer or early fall to sod not exceeding 3" in height. • For control of emerged little barley, apply in February or March before the mid-boot stage of little barley. **Bermudagrass and Coastal Bermudagrass Pastures** • Apply when bermudagrass is dormant. • For control of little barley, apply before the mid-boot stage. • Do not mow for hay until 40 days after treatment.
For control of endophyte-fungus-infected fescue forage legume/grass mixture and other grass pastures	Broadcast (Split Application)	0.7-1.3 pts. followed by 0.7-1.3 pts.	Ground: 10 gals.	—	• Do not make more than 2 applications per year. • Use split applications of 10-21 days apart if necessary. • Do not exceed 2.6 pts./A total in preparation for reseeding. • For spring plantings, the initial application of 0.7-1.3 pts. may be made the previous fall. • Apply when fescue is actively growing and no more than 4" high.

					• To reduce the infestation of endophyte-infested grass, do not allow fescue to go to seed starting with the preceding year's crop.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
*For prickly pear desiccation in pastures *Not for use in California	Spot Sprays	0.8 fl. oz. per gallon of water	Spray to wet weed foliage	—	• Do not make more than 10 applications per year. • Hand-held equipment such as knapsacks backpack sprayers, pump-up pressure sprayers, hand-guns, and hand-wands, can be used to direct the spray onto weed foliage so that the spray thoroughly wets foliage. • Mix 0.8 fl. oz. of PARAQUAT CONCENTRATE and 1/3 fl. oz. of a nonionic surfactant per gallon of water. • Completely and uniformly cover all green prickly pear foliage with spray. • Apply in May through September for best desiccation results. • Do not use more than 1.6 pts. of PARAQUAT CONCENTRATE per acre per year. • Apply only to pastures with no more than 3" of height at time of treatment. • Tank mix with Grazon® P+D Specialty® herbicide at a rate of 1-2 fl. oz. per gallon of water for improved desiccation and perennial control of prickly pear. • Always refer to the Grazon P+D Specialty herbicide label for weeds controlled, rates of applications, directions for use, limitations, and restrictions.
*For Juniper Species leaf moisture reduction or desiccation prior to Prescribed burning of pastures *Not for use in California	Broadcast	1.3 pts.	Air: 5 gals.	—	• Do not make more than 10 applications per year. • Use only in conjunction with prescribed burning as recommended and monitored by local SCS or University and Extension Range Specialists. • Apply during hot, dry weather conditions (generally July and August). • Use 2% v/v nonionic surfactant in a minimum of 5 gal spray solution. • Monitor juniper leaf moisture content. Maximum leaf moisture reduction generally occurs 3-4 weeks after PARAQUAT CONCENTRATE application. • Significant soil moisture and/or wet weather conditions prior to or after application will decrease the potential for juniper crown burns. • Reduction in leaf moisture can be adversely affected by cool or humid weather conditions.. • Do not graze livestock after application or prior to burning.
*Native	Broadcast	1.0-1.25 pts.	Ground:	—	• Do not make more than 2 applications

Pastures *Not for use in California			10 gals. Air: 5 gals.		per year. • Apply PARAQUAT CONCENTRATE for control of downy and Japanese brome. • Apply in spring after 90% node formation of brome species, but before full bloom. • Emerged native perennial grasses will be burned by application, but application after 90% node formation will allow adequate time for native grasses to recover and attain maximum growth in the use season. • Do not apply more than 1.25 pts. PARAQUAT CONCENTRATE per year. • Apply only to pastures with no more than 3" of height at time of treatment.

Conversion Table
PARAQUAT CONCENTRATE to Be Applied

Ounces	Pints	Lb. a.i.	Acres/Gallon
2.5	0.16	0.06	51.3
4.8	0.30	0.11	26.7
5.28	0.33	0.12	24.2
5.52	0.35	0.13	23.2
10.00	0.63	0.23	12.8
11.00	0.69	0.26	11.6
11.20	0.70	0.26	11.4
12.00	0.75	0.28	10.7
16.00	1.00	0.38	8.0
20.00	1.25	0.47	6.4
20.80	1.30	0.49	6.2
24.00	1.50	0.56	5.3
28.00	1.75	0.66	4.6
32.00	2.00	0.75	4.0
40.00	2.50	0.94	3.2
43.20	2.70	1.00	3.0

STORAGE AND DISPOSAL

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

Pesticide Storage: Store in original container and place in a locked storage area. Do not mix or store in containers, spray tanks, nurse tanks, or such systems made of aluminum or having aluminum fittings. Store at temperatures above 32°F. For Emergencies involving a Spill, Leak, Fire, Exposure, or Accident, contact: CHEMTREC at (800) 424-9300.

Pesticide Disposal: Pesticide wastes are acutely hazardous. Improper disposal of excess, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container Disposal:
Plastic containers of 5 gallons or less: Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available.

Triple rinse or pressure rinse (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. 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.

Mini-bulk Containers: Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller.

To clean the container before final disposal, empty the remaining contents from this container into application equipment or 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.

WARRANTY STATEMENT IMPORTANT NOTICE - Seller warrants that this product conforms to the chemical description and is reasonably fit for purposes stated on the label when used in accordance with the directions and instructions under normal conditions of use; **but neither this warranty nor any other warranty of merchantability or fitness for a particular purpose, express or implied, extends to the use contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to seller, and buyer assumes the risk of any such use.**

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4B-3-0 4L-3-3 c/o Sree

Material to be added to an e-Jacket/Jacket

Reg. No. 82542-3

Description: letter to Registrant

1. ☒ **Placement within the e-Jacket/jacket:**
   - ☒ **Default: (chronological, top = newest)**
   - ☐ **File Location: (PDF page number, i.e., "before page 45")**

2. ☐ **Send to Data Extraction contractors this material:**
   - ☐ **Newly stamped accepted label**
   - ☐ **Notification**
   - ☐ **New CSF**
   - ☐ **Other:** _____

3. Attach this coversheet to the top of the material or jacket. It must be well organized and clipped together, NOT STAPLED. Then give the material with this coversheet to staff in the Information Services Center (Room S-4900).

Reviewer's Name: Hope Johnson

Phone: 305-5410 **Division:** RD

Date: 7/28/09

Created March 9, 2009

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

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

Mr. Rufus Bastian
Source Dynamics
10039 E. Troon North Drive
Scottsdale, AZ 85262

JUL 27 2009

Subject: Paraquat Concentrate
EPA Registration Number 82542-3
July 21, 2009 meeting regarding methanol label statement

Dear Mr. Bastian:

During the July 21, 2009 meeting with your consultant Stanley Bernard, he requested to remove the statement "This product contains the toxic ingredient methanol at 7%" from directly following the Ingredient Statement, as required by Item #7 of the October 11, 2007 Registration Notice. This statement may be MOVED from directly following the Ingredient Statement to the Note to Physician subsection of the FIRST AID STATEMENTS section.

Submit a label amendment with this revision for review and approval. If you have any questions, please contact Hope Johnson at 703-305-5410.

Sincerely,

Hope A. Johnson, for,

James A. Tompkins
Product Manager 25
Herbicide Branch
Registration Division (7505P)

Cc: Stanley Bernard

Fw: Source Dynamics EPA Reg. # 82542-3

Jim Tompkins to: Hope Johnson 07/21/2009 03:56 PM

Jim Tompkins
Team Leader 25
Herbicide Branch
Registration Division

Phone 703 305 5697
Fax 703 308 0029
E-mail Tompkins.jim@EPA.GOV
---- Forwarded by Jim Tompkins/DC/USEPA/US on 07/21/2009 03:56 PM ----

From:	"Stanley Bernard" <sbernard@drexchem.com>
To:	Jim Tompkins/DC/USEPA/US@EPA
Date:	07/16/2009 12:02 PM
Subject:	FW: Source Dynamics EPA Reg. # 82542-3

Dear Mr. Tompkins,
I will be in Washington briefly next week. Would you be available Tuesday afternoon around 3:30 or later for a quick meeting regarding Source Dynamics paraquat label?

We have a question regarding the need for the statement "This product contains hazardous inert ingredient methanol at 7%."
Best regards,
Stanley Bernard

From: Rufus Bastian [mailto:rbastian@solerasd.com]
Sent: Wednesday, July 15, 2009 2:11 PM
To: Tompkins.Jim@epamail.epa.gov
Cc: vstojic@solerasd.com; Stanley Bernard
Subject: Source Dynamics EPA Reg. # 82542-3

Dear Mr. Tompkins,

I understand that Mr. Stanley Bernard might have an appointment with you next Tuesday. One of the subjects he would like to discuss involves Source Dynamics' Paraquat Concentrate Registration 82542-3.

This is to inform you that Mr. Bernard is consulting for Source Dynamics and you are free to discuss any details regarding this registration with Mr. Bernard.

Thank you and please feel free to call me if you have any questions.

Best regards,

Rufus Bastian
Source Dynamics, LLC
480-502-9289

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

SEP - 1 2009

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

Mr. Rufus Bastian
Source Dynamics
10039 E. Troon North Drive
Scottsdale, AZ 85262

Subject: Paraquat Concentrate
EPA Registration Number 82542-3
Application dated July 31, 2009

Dear Mr. Bastian:

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act as amended is acceptable, provided you make the following changes before you release the product for shipment.

1) Add "/PPE" after "Remove clothing" in the second statement of the User Safety Recommendations section
2) Revise "GENERAL" to "USE" in the heading "GENERAL INSTRUCTIONS AND INFORMATION" on page 5
3) Revise "GENERAL" to "USE" in the heading "GENERAL INFORMATION" on page 7
4) On page 7, revise "should" to "can" in both the Temperature Inversions subsection and the Sensitive Areas subsection
5) Revise "GENERAL" to "USE" in the heading "GENERAL PRECAUTIONS AND RESTRICTIONS" on page 11
6) Revise "General" to "Use" in the heading "General Information for Chemical Fallow" on page 18. Revise all references to this heading on page 19 as well.
7) On page 35, revise "General Comments" to "Use Comments"
8) Revise the STORAGE AND DISPOSAL section per PR Notice 2007-4.

Submit one (1) copy of final printed labeling incorporating the above changes before you release the product for shipment. Amended labeling will supercede all previously accepted ones. A stamped copy of labeling is enclosed for your records. If you have any questions, please contact Hope Johnson at 703-305-5410.

Sincerely,

James A. Tompkins
Product Manager 25
Herbicide Branch
Registration Division (7505P)

Source Dynamics July 31, 2009

Restricted Use Pesticide due to acute toxicity. For retail sale to and use only by certified applicators or persons under their direct supervision and only for those uses covered by the certified applicator's certification.

PARAQUAT CONCENTRATE

Defoliant and desiccant herbicide for the control of weeds and grasses and as a harvest aid.

NEVER PUT INTO FOOD, DRINK OR OTHER CONTAINERS.
IF SWALLOWED, TAKE IMMEDIATE ACTION AS PRESCRIBED IN FIRST AID.
SYMPTOMS ARE PROLONGED AND PAINFUL.
DO NOT USE OR STORE IN OR AROUND THE HOME.
DO NOT REMOVE CONTENTS EXCEPT FOR IMMEDIATE USE.
THE ODOR OF THIS PRODUCT IS FROM THE STENCHING AGENT WHICH HAS BEEN ADDED, NOT FROM PARAQUAT.

NET CONTENTS: (2.5. 5, 15, 30, 55 gallons and 85-300 gallon mini-bulk)

Active Ingredient:
paraquat dichloride (1,1'-dimethyl-4,4'-bipyridinium dichloride) 43.2%
Other Ingredients: 56.8%
Total: 100.0%

Contains 3.0 pounds paraquat cation per gallon as 4.14 pounds of dichloride salt per gallon. Contains emetic and stench (odor).

ACCEPTED
with COMMENTS
in EPA Letter Dated

SEP - 1 2009

Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No.

82542-3

KEEP OUT OF REACH OF CHILDREN

DANGER/PELIGRO

POISON

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

EPA Reg. No. 82542-3
EPA Est. No. 75173-1-TWN
Product of Taiwan

Manufactured for: Source Dynamics, LLC
10039 E. Troon North Drive
Scottsdale, AZ 85262

FIRST AID Contains Paraquat, a Bipyridinium Herbicide Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

If swallowed	• **Call a poison control center or doctor IMMEDIATELY for treatment advice.** • SPEED IS ESSENTIAL. Immediate medical attention is required. If available, give an absorbent such as activated charcoal, bentonite or Fuller's Earth. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to by a poison control center or doctor. • Do not give anything by mouth to an unconscious person.
If inhaled	• Move person to fresh air. • The odor of this product is from the stenching agent, which has been added, not from the paraquat. • If person is not breathing, call 911 or an ambulance. • Call a poison control center or doctor for treatment advice.
If in eyes	• Hold eye open and rinse slowly and gently with water for 15-20 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 on skin or clothing	• 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.

NOTE TO PHYSICIAN This product contains the toxic ingredient methanol at 7%. Administer either activated charcoal (t00g for adults or 2g/kg body weight in children) or Fuller's Earth (15% solution; 1 liter for adults or 15ml/kg body weight in children). NOTE: The use of gastric lavage without administration of an absorbent has not shown any clinical benefit. Do not use supplemental oxygen. Eye splashes from concentrated material should be treated by an eye specialist after initial treatment. With the possibility of late onset corneal ulceration, it is advised that patients with paraquat eye injuries are reviewed by an eye specialist the day after first presentation. Use treatment that is appropriate for chemical burns. Intact skin is an effective barrier to paraquat; however, contact with irritated or cut skin or repeated contact with intact skin may result in poisoning.

HOT LINE NUMBERS:

SAFETY DATA AND INFORMATION 203-573-3303
TRANSPORTATION EMERGENCY (CHEMTREC) 800-424-9300

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER. May be fatal if swallowed. Fatal if inhaled. Corrosive. Causes irreversible eye damage. Wear protective eyewear. Do not breathe spray mist. Wear a dust mist respirator. Causes irreversible eye damage. Do not get in eyes or on clothing. Harmful if absorbed through skin. Avoid contact with skin. Prolonged or frequently repeated contact may cause allergic reactions in some individuals.

IMPORTANT: Inhalation is an unlikely route of exposure due to low vapor pressure and large spray droplet size, but mucosal irritation or nose bleeds may occur. Prolonged contact with this concentrated product can irritate your skin.

Personal Protective Equipment (PPE)

Applicators and other handlers (other than mixers and loaders) must wear:

Long-sleeved shirt and long pants; Chemical resistant gloves – Category A (e.g., barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinyl chloride (PVC) or viton); Shoes plus socks; Protective eyewear; NIOSH-approved particulate filtering respirator equipped with N, R or P class filter media. The respirator should have a NIOSH approval number prefix TC-84A. It is recommended that you require that respirator wearer to be fit tested, and trained in the use, maintenance and limitations of the respirator.

Mixers and loaders must wear:

Long-sleeved shirt and long pants
Chemical resistant gloves – Category A (e.g., barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinyl chloride (PVC) or viton)
Shoes plus socks
Chemical resistant apron
Face shield
NIOSH-approved particulate filtering respirator equipped with N, R or P class filter media. The respirator should have a NIOSH approval number prefix TC-84A. It is recommended that you require that respirator wearer to be fit tested, and trained in the use, maintenance and limitations of the respirator.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

Engineering Controls: When handlers use closed systems, enclosed cabs, or aircraft 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.

User Safety Recommendations

Users should:

Wash hands before eating, drinking, and chewing gum, using tobacco or using the toilet.
Remove clothing 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.

ENVIRONMENTAL HAZARDS

This product is **toxic to wildlife**. 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 cleaning equipment or disposing of equipment wash waters.

Paraquat dichloride is **toxic to nontarget crops and plants** if off-target movement occurs because it desiccates all green plant tissue. Extreme care must be taken to ensure that off-target drift is minimized to the greatest extent possible. Refer to the local state laws, regulations, guidelines, and spray drift information contained in the Directions for Use section for proper application to avoid off-target movement. Do not apply under conditions involving possible drift to food, forage, or other plantings that might be damaged or the crops thereof rendered unfit for sale, use, or consumption. Do not apply when weather conditions favor drift from treated areas. To avoid drift, do not make aerial application during periods of thermal inversion.

PHYSICAL AND CHEMICAL HAZARDS

This product is **mildly corrosive to aluminum** and produces hydrogen gas which may form a highly combustible gas mixture. Do not mix or store in containers, spray tanks, nurse tanks, or such systems made of aluminum or having aluminum fittings. The product is compatible with high density polyethylene and rubber-lined steel containers.

DIRECTIONS FOR USE

Restricted Use Pesticide. It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

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. Do not use around home gardens, schools, recreational parks, golf courses or playgrounds.

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 interval. The requirements in this box only apply to use of this product that are covered by the Worker Protection Standard.

For preplant or preemergence (broadcast or banded), chemical fallow, postemergence directed spray applications, early postemergence broadcast in peanuts and dormant season applications, and "between cutting" applications in alfalfa: Do not enter or allow worker entry into treated areas during the **restricted-entry interval (REI) of 12 hours.**

For harvest aid and desiccation application: 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
Shoes plus socks
Protective eyewear
Chemical resistant gloves - Category A (e.g., barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinyl chloride (PVC) or viton).

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 others to enter the treated area until sprays have dried.

AVOID working in spray mist.
Keep all unprotected persons out of operating areas or vicinity where there may be danger of drift.

Certain states may require more restrictive reentry intervals; consult your State Department of Agriculture for further in formation.

GENERAL INSTRUCTIONS AND INFORMATION

Do not apply this product through any type of irrigation system.

When PARAQUAT CONCENTRATE is applied at less than 10 gallons per acre finished spray volume, a drift control or spray deposition additive SHOULD be used. Refer to the additive label for rates of applications, directions for use, limitations, and restrictions.

SPRAY DRIFT INFORMATION

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

APPLICATOR. The interaction of many equipment- and weather-related factors determines the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following DRIFT MANAGEMENT REQUIREMENTS must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

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°. Where states have more stringent regulations, they shall be observed.

The applicator should be familiar with and take into account the information covered in the Aerial Drift Reduction Advisory Information.

Where states have more stringent regulations, they must be observed.

AERIAL DRIFT REDUCTION ADVISORY INFORMATION

Information on Droplet Size

The most effective way to reduce drift potential is to apply large droplets. The best management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environment conditions (see Wind, Temperature and Humidity, and Temperature Inversions).

Controlling Droplet Size

- **Volume** - Use high flow rate nozzles to apply the highest spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure** - Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- **Number of Nozzles** - Use the minimum number of nozzles that provide uniform coverage.
- **Nozzle Orientation** - Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- **Nozzle Type** - Use a nozzle that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

Boom Length

For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.

Application Height

Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making application at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

Swath Adjustment

When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase with increasing drift potential (higher wind, smaller drops, etc.).

Wind

Drift potential is lowest between wind speeds of 2-10 mph. However, many factors, including droplet size and equipment type, determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. NOTE:

Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

Temperature and Humidity

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

Temperature Inversions

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes 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 are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They 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 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.

Sensitive Areas

The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

GENERAL INFORMATION

PARAQUAT CONCENTRATE is a liquid formulation containing 3 lbs. of active ingredient per gallon. It contains a nontoxic odor to help prevent accidental ingestions. It also contains an emetic (an agent which will induce vomiting if the product is swallowed).

APPLICATION

PARAQUAT CONCENTRATE is a contact herbicide for control or suppression of a broad spectrum of emerged weeds including most small annual broadleaf and grass weeds. It can also be used to suppress perennial weeds by destroying green foliage and as a desiccant/ defoliant at harvest.

Complete coverage of target weeds is necessary to get good control because PARAQUAT CONCENTRATE is a contact-type herbicide. It is also necessary to obtain complete coverage for good crop desiccation and defoliations. Undesirable weed control and undesirable crop desiccation/defoliation will result if improper application technique and/or application to large, stressed, or mown weeds are made. Refer to the following details for specific application instructions.

Thorough coverage of all green foliage is required for efficacious weed control and crop defoliation and desiccation because PARAQUAT CONCENTRATE requires actively growing green plant tissue to function. Drought-stressed weeds, weeds with little green foliage (i.e., mowed or cut weeds), or mature woody bark of trees and vines are unaffected by application with PARAQUAT CONCENTRATE.

There is no residual soil activity to affect later-planted crops or later germinating weeds because clay and organic matter rapidly tie up PARAQUAT CONCENTRATE.

ROTATIONAL CROPS

After the last application PARAQUAT CONCENTRATE, all rotational crops may be planted immediately.

RAINFASTNESS

Rain occurring 30 minutes or more after application will have no effect on the activity of PARAQUAT CONCENTRATE because it is rapidly absorbed by the weed foliage.

USE OF A NONIONIC SURFACTANT OR CROP OIL CONCENTRATE

The following should always be added and be used at the recommended rates or there will be a reduction in efficacy of PARAQUAT CONCENTRATE.

Nonionic Surfactant: Either add a nonionic surfactant cleared for the current use containing 50-74% surface-action agent at 0.25% v/v (2 pts./100 gals.), or add nonionic surfactant containing 75% or more surface-active agent at 0.125% v/v (1 pt./100 gals.), of the finished spray volume for ground applications. Add a nonionic surfactant at 0.25% v/v (2 pts./100 gals.) of the finished spray volume for aerial applications.

Crop Oil Concentrate: For ground applications, add a nonphytotoxic crop oil concentrate cleared for the current use that contains15-20% approved emulsifier, with 1.0% v/v (1 gal./100 gals.) of the finished spray volume. Add 1 pt. of crop oil concentrate per acre for aerial applications. **For cotton harvest aid, do not use crop oil concentrate when using PARAQUAT CONCENTRATE.**

NOZZLE SELECTION

The use of flat-fan nozzles is the most effective application of PARAQUAT CONCENTRATE. The use of flood nozzles may result in a reduction of weed control due to inadequate coverage because they produce large uneven droplets.

Use only flat fan nozzles when spraying less than 20 gallons of spray carrier per acre using the following table.

Recommended Nozzle Type and Spray Pressures and Setup

	Nozzle Type	
	Flat Fan	Flood
Maximum Size	8	15
Spray Pressure (at nozzle)	30-50 psi	30-50 psi
Maximum Nozzle Spacing	30"	40"
Direction of Spray Pattern	Down	Down
Maximum Speed	10 mph	10 mph
Spray Overlap (at each edge)	30%	50%

Reduced control will result if nozzles, pressures, or setups differ from the above chart.

SPRAY CARRIER

PARAQUAT CONCENTRATE may be inactivated by muddy water, or suspension-type fertilizers containing clay. Therefore, always use clean water (free of mud or clay), clear liquid nitrogen, or complete clear liquid fertilizers as the carrier when spraying this product. Never use suspension-type fertilizers containing clay as the spray carrier. Always use the higher rate of PARAQUAT CONCENTRATE and surfactant if using a complete clear liquid fertilizer containing high phosphate levels as the spray carrier.

Note: It is important that when using liquid fertilizers such as 28% N as a spray carrier, that nonionic surfactant still be used with PARAQUAT CONCENTRATE. The use of liquid fertilizer carriers are not substitutes for surfactants.

RATES OF PARAQUAT CONCENTRATE

With each use, follow rates listed in the following tables. When weeds are larger or are dense,

use the higher label rates. For use as a harvest aid, use higher rate when crop vegetation is dense. Do not exceed 0.50 lbs. a.i./A in a minimum of 30 gallons of spray for broadcast applications with backpack sprayers.

SPRAY VOLUME

With each use, follow rates listed in the following tables. Spray volumes should be increased as necessary to obtain complete coverage of the target weed or plant without runoff from the foliage, because the volumes **listed are minimum volumes only.**

TARGET WEEDS SHOULD NOT EXCEED SIX INCHES IN HEIGHT WHEN SPRAYING LESS THAN 20 GALLONS OF SPRAY CARRIER PER ACRE.

APPLICATION TIMING

Applications should be made to small emerged weeds. Larger weeds more than 6 inches in height may be more difficult to control than weeds 1-6 inches in height. If possible, when green foliage is removed either from grazing or mowing, allow the weeds to grow 2-4 inches in height. Also, during harvesting forage or grain crops before spraying, weeds present in the field are also cut. Therefore, raise cutter bars as high as possible from the ground to cut stubble and weeds at a greater height, allowing sufficient green foliage to remain for applications.

BURNDOWN OF GRASS COVER CROPS OR VOLUNTEER CEREALS

The best results occur for control of grass cover crops or volunteer cereals when PARAQUAT CONCENTRATE is applied prior to tillering or after boot stage, especially with a wheat cover crop or volunteer wheat. Complete control may not be achieved with treatments made between tillering and boot stage. Complete control of perennial cover crops should not be expected.

ENVIRONMENTAL CONDITIONS

This product is active over a wide range of environmental conditions such as cool (below 55°F), cloudy or overcast weather. However these conditions will slow the activity of PARAQUAT CONCENTRATE.

SPOT SPRAYING

Refer to the following table if only small areas are to be sprayed with labeled applications.

Mixing Instructions for Small Quantities for Spot Spraying

If the Broadcast Rate Per Acre for PARAQUAT CONCENTRATE is:	Add The Following Amount of PARAQUAT CONCENTRATE to 1 Gallon of Water
1 1/2 pts.	1/3 fl. oz
2 pts.	3/8 fl. oz.
2 1/2 pts.	1/2 fl oz.
3 pts.	2/3 fl. Oz.

Add 1/3 - 1/2 fl. oz. of a nonionic surfactant for each gallon of spray at all times. Thoroughly wet the foliage, but not to the point of runoff when spot spraying in this manner.

TANK MIXING: ENHANCED BURNDOWN OF DIFFICULT-TO-CONTROL WEEDS AND FOR RESIDUAL WEED CONTROL

Photosynthetic Inhibitor Herbicides

To control difficult weeds, tank mix PARAQUAT CONCENTRATE with other herbicides. The addition of other photosynthetic inhibitors (PSI) herbicides will slow the activity of PARAQUAT CONCENTRATE. This allows PARAQUAT CONCENTRATE to thoroughly distribute throughout a

treated leaf, thus achieving better control than if PARAQUAT CONCENTRATE was applied alone.

PARAQUAT CONCENTRATE may be applied in tank mixture with the following PSI herbicides:

AAtrex® Herbicide

Atrazine Herbicide

Bicep Lite II

MAGNUM® Herbicide

Bicep MAGNUM® Herbicide

Canopy® Herbicide

Lariat® Herbicide

Lexone® Herbicide

Linex® Herbicide

Lorox® Herbicide

Lorox Plus™ Herbicide

Princep® Herbicide

Sencor® Herbicide

Always refer to the respective product label(s) for rates of applications, directions for use, limitations, and restrictions.

Improved Weed Control with PSI's

The addition of a PSI herbicide will help improve the control of difficult weeds listed below. Make a second application for best results.

Barnyardgrass
Broadleaf signalgrass
Cheatgrass
Cocklebur
Fall panicum
Giant ragweed
Knotweed
Kochia
Lambsquarters
Malva (cheeseweed)
Marestail
Morningglory
Pennsylvania smartweed
Perennial weeds (suppression only)
Prickly lettuce
Sedges
Tansymustard
Velvetleaf
Volunteer wheat

Improved Control of Perennial and Annual Broadleaf Weeds

Tank mixing with labeled 2,4-D ester (Low Volatile), 2,4-DB or Banvel® herbicide will help improve control when perennial broadleaf weeds such as Canada thistle, bindweed, dandelion, etc., or difficult to control annual broadleaf weeds such as giant ragweed or morninggiory are present. Reduced grass control may be achieved when tank mixing the amine formulation of 2,4-D with PARAQUAT CONCENTRATE .

Order of Tank Mixing

It is advisable to tank mix PARAQUAT CONCENTRATE and other listed products as follows:

1. Fill spray tank 1/2 full with clean water or other approved carriers such as clear liquid fertilizer.
2. Begin tank agitation and continue throughout mixing and spraying.
3. Add dry formulations (WP, DF, etc.) to tank.
4. Add liquid formulations (SC, EC, L, etc.) to tank.
5. Add PARAQUAT CONCENTRATE to tank.
6. Add nonionic surfactant to tank.
7. Fill remainder of spray tank.

Always read other pesticide products labels for weeds controlled, rates of applications, directions for use, limitations, and restrictions.

It is advisable to perform a jar test to check physical compatibility when using different formulation of the herbicides listed on this label.

GENERAL PRECAUTIONS AND RESTRICTIONS

EQUIPMENT

PARAQUAT CONCENTRATE is **corrosive to aluminum.** Thoroughly flush all aluminum spray equipment and aluminum aircraft structures that are exposed to spray solution or spray drift with water immediately after use.

The activity of PARAQUAT CONCENTRATE may be reduced in dry areas where dust stirred up by high winds or equipment tires can coat weed or plant leaves. Therefore, avoid applications in extremely dusty conditions.

LIMITATIONS AND PRECAUTIONS

- **Unless otherwise indicated, PARAQUAT CONCENTRATE will severely injure or kill crop plants emerged at time of application if they come in contact with sprays.**
- Do not pasture livestock in treated fields or feed treated foliage in cotton when this product is used as a cotton harvest aid.
- Do not use around home gardens, schools, recreational parks, or playgrounds.
- Do not apply to soils lacking clay minerals such as peat, muck, pure sand, artificial planting media for preplant and preemergence (to the crop) uses.
- To enable maximum weed and grass emergence prior to treatment, seedbeds and plantbeds should be formed as far ahead of planting and treatment as possible.
- Avoid disturbing soil when seeding or transplanting.
- Transplanted plants may become damage when they come in contact with plastic mulch used for preplant weed control and that has been treated with this product.To prevent damage to the crop, sufficient wash-off such as rainfall or sprinkler irrigation prior to planting may be needed.

• PARAQUAT CONCENTRATE will be ineffective in controlling or suppressing weeds and grasses that have emerged after application.

APPLICATION INSTRUCTIONS

Crop	Weeds	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
ALFALFA (California only) New seedlings		Broadcast	0.7-1.3 pts. See Table 2.	Ground: t0 gals. Air: 5 gals.	70	• Do not make more than one application per year. • Applications should be made during late winter or early spring. • Do not cut or harvest within 70 days after application. • Alfalfa foliage present at time of application will be burned. • Replanting may be needed due to the reduction of seedling stands. • Do not apply to seedling alfalfa grown for seed.
ALFALFA Preplant or Preemergence (No-till or conventional planting)		Broadcast or Banded Over Row	1.7-2.7 pts.	Ground: 10 gals. Air: 5 gals.		• Do not make more than 2 applications per year. • Apply prior to emergence of the crop. Avoid disturbing soil when seeding. • Crop plants emerged at time of application will be killed.
ALFALFA Dormant season Established plantings Region A - See table at end of Alfalfa section	Weeds, including bluegrass, chickweed, henbit, downy brome, ryegrass, cheatgrass, dogfennel, tansymustard, London rocket, sowthistle, rescue brome, wild oats, and other winter annuals; and suppression of perennial weeds.	Broadcast	1.3-2.0 pts.	Ground: 10 gals. Air: 5 gals.	42	• Do not make more than one application per year. • **Fall regrowth:** Do not apply if last fall cutting is greater than 6." • **Spring regrowth:** Do not apply if last cutting is greater than 2". • After the crop is dormant, apply to well-established stands that are at least 1-year old. • Yield of first cutting may be reduced because alfalfa foliage present at the time of application will be burned. • Do not cut or harvest within 42 days after application. • For improved and longer-lasting weed control, tank mix with metribuzin (Lexone or Sencor). Always refer to the metribuzin label for weeds controlled, rates of applications, directions for use, limitations and restrictions.

Crop	Weeds	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
ALFALFA Dormant season Tank Mix with Velpar® L-Herbicide Region A - See table at end of Alfalfa section	Weeds including chickweed, downy brome and tansymustard.	Broadcast	0.7-t.3 pts.	Ground: t0 gals. Air: t0 gals.	42	• Do not make more than 2 applications per year. • When weeds are less than 4 inches tall apply at 0.7 pt. rate PARAQUAT CONCENTRATE • Mix PARAQUAT CONCENTRATE with t-2 qts. of Velpar L per acre. • Use lower rate of Velpar L on loamy sands or sandy loams. Always refer to the Velpar L label for weeds controlled, rates of applications, directions for use, limitations, and restrictions. • During the dormant season, make one application to established alfalfa stands . • **Fall regrowth:** Do not apply if last fall cutting is greater than 6." • **Spring regrowth:** Do not apply if last cutting is greater than 2". • Do not apply to alfalfa during the first season after seeding. • Temporary chlorosis may occur on alfalfa regrowth. • Increased chances of crop injury may occur if stress which may be caused in part by low fertility, disease, insects, winterkill, over cutting, drought or frost. • DO NOT USE on gravelly or rocky soils, exposed subsoils, hardpan, sand or poorly drained alkaline soils as crop injury, including mortality, may result. • Do not cut or harvest within 42 days of application.
ALFALFA Dormant Season On established plantings: Region B: See table at end of Alfalfa section. On fall-seeded newly established stands less than 1-year-old: Region A - See table at end of	Weeds including London rocket, sowthistle, rescue brome, wild oats, chickweed, ryegrass, bluegrass, cheatgrass, dogfennel, tansymustard, henbit, downy brome, and other winter annuals; and suppression of perennial weeds	Broadcast	0.7-1.3 pts.	Ground: t0 gals. Air: 5 gals.	60	• Do not make more than one application per year. • Applications should be made before first spring cutting and during late fall or winter months after the last fall cutting. • **California:** Do not apply if spring regrowth after grazing or cutting is more than 2 inches in Orange and Riverside counties, and all counties north of these counties. • **All other areas within Region B:** Do not apply if regrowth after grazing or cutting is more than 2 inches. • Do not harvest within 60 days of application. • Applications to alfalfa that is not dormant, or has broken dormancy, may result in stand and/or yield reductions. Replanting

Alfalfa section On fall-seeded newly established stands less than 1-year-old: Region B - See table at end of Alfalfa section	**California:** Desiccation of weeds including bluegrass, ryegrass, shepherdspurse, chickweed, tansymustard, foxtail, sowthistle and groundsel.	Broadcast	0.7-1.3 pts.	Ground: 10 gals. Air: 5 gals.	60	may be necessary. Green alfalfa foliage present at time of application will be burned. • If there is a severe weed infestation, total hay yield of first cutting may be reduced in alfalfa fields and the reduction is typically directly proportionate to the loss of weed weight. • For improved and residual weed control in dormant **established (at least 1-year-old) alfalfa,** tank mix with metribuzin (Lexone or Sencor). Do not apply tank mix with metribuzin on alfalfa that is less than 1-year-old. • Always refer to metribuzin label for weeds controlled, rates of applications, directions for use, limitations, and restrictions. **California** • If ryegrass, shepherdspurse, sowthistle or groundsel are present, use higher rate.
		Broadcast	0.5-0.8 pts.	Ground: 10 gals. Air: 5 gals.	60	

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
ALFALFA (East of the Rocky Mountains) Between-cuttings treatment in established plantings. (Includes first year alfalfa)	Broadcast	0.7 pt.	Ground: 10 gals.	30	• Do not make more than 3 applications per year. • Control of weeds beyond the seedling stage and weed stubble cut off during harvest are less affected by this treatment. • Make applications immediately after alfalfa has been removed for hay or silage. • Do not treat more than 5 days after cutting. • A reduction in first year alfalfa stands and yeilds may occur if alfalfa is allowed to regrow more than 2 inches. • Burning of alfalfa foliage will occur at time of application. • Weed control may be reduced where moisture is limited such as in arid climates. • Do not cut or harvest within 30 days of application. • Apply as needed up to three times during the growing season in addition to a dormant application. • Do not make more than 2 applications during the first growing season of first-year alfalfa.
ALFALFA (For use only in the following states: ID, MT, NV, OR, UT, WA, WY) Desiccation of alfalfa to aid harvesting alfalfa seed	Broadcast	1.7-2.7 pts.	Ground: 20-25 gals. Air: 5-10 gals.	See Precautions	• Do not make more than 2 applications per year. • Do not harvest until at least 4 days after application. • Do not apply when weather conditions favor drift from treated areas. • Do not apply by ground equipment within 25 ft., or by air within 75 ft. of lakes; reservoirs; rivers; permanent streams; marshes or natural ponds; estuaries; and commercial fish farm ponds. • Use only on fields in production of alfalfa seed. Do not use on fields producing alfalfa for livestock feed. Do not use any portion of the treated field for human or animal feed, including seed, seed screenings, hay forage, or stubble • Do not cut current year's treated alfalfa seed crop

PARAQUAT CONCENTRATE/ Reglone Tank Mix	Broadcast	1.3-2.7 pts. PARAQUAT CONCENTRATE/ 2 pts. Reglone	Ground: 20-25 gals. Air: 5-10 gals.	See Precautions	for hay or forage. Do not graze current year's treated alfalfa seed crops. • Do not use treated alfalfa seed for sprouting. Tag all alfalfa seed treated with PARAQUAT CONCENTRATE/Reglone tank mix at processing plants with, "NOT FOR HUMAN CONSUMPTION". The grower is responsible for notifying the processing plants of any seed crop treated with PARAQUAT CONCENTRATE/Reglone tank mix. • Remove ALL PARAQUAT CONCENTRATE/Reglone treated alfalfa seed screenings from the market because all screening from alfalfa seed processing are prohibited from feed channels.

ALFALFA: New Seedlings - Suppression and control of broadleaf weeds and grasses in new alfalfa seedlings grown for hay (California only).

For Control of:	Rate/Acre*	
	For Suppression	For Control
Annual Bluegrass	—	10.7-21.3 fl. oz.
Chickweed	—	10.7-21.3 fl. oz.
Fiddleneck (6 inches tall or less)	5.4-10.7 fl. oz.	21.3 fl. oz.
Red Maids (6 inches tall or less)	—	10.7-21.3 fl. oz.
Shepherdspurse	10.7-21.3 fl. oz.	—
Spikeweed (4 inches tall or less)	5.4 fl. oz.	10.7-16.0 fl. oz.
Volunteer Small Grain (8 inches tall or less)	5.4-10.7 fl. oz.	21.3 fl. oz.

*** Use the 5.4 fl. oz. rate only when alfalfa has at least 3 trifoliate leaves; use the 10.7 fl. oz. rate only when alfalfa has 6 trifoliate leaves; or use rates over 10.7 fl. oz. only when there are 9 trifoliate leaves.**

Alfalfa – Regions

REGION A
Alaska, California (counties of Del Norte, Siskiyou, Modoc, Shasta, Lassen, Plumas, Sierra and Nevada), Colorado, Connecticut, Delaware, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New York, North Dakota, Ohio, Oregon, Pennsylvania, Rhode Island, South Dakota, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming

REGION B
Alabama, Arizona, Arkansas, California (all other counties not listed in Region A), Florida, Georgia, Hawaii, Louisiana, Mississippi, New Mexico, North Carolina, Oklahoma, South Carolina, Tennessee, Texas

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
ALMONDS	Directed Spray	0.8-2.7 pts.	Ground: 10 gals.	—	• Do not make more than 5 applications per year. • Avoid allowing spray to contact green stems (except suckers) or foliage. • When spraying around young trees, use a shield or wrap plant . • Do not graze treated areas and do not feed cover crops grown in treated areas to livestock. • Do not apply when nuts to be harvested are on the ground. • Retreatment or spot treatments may be necessary for mature woody weeds, perennial weeds, late germinating weeds and green suckers.
ARTICHOKE (GLOBE)	Directed Spray	1.7-2.7 pts.	Ground: 20-100 gals.	1	• Do not make more than 3 applications per year. • Do not exceed 8 pts. per season. • Applications must be made at least 7 days apart. • Do not harvest within 24 hours of last application.
ASPARAGUS	Preplant or Preemergence Broadcast or Banded Over-Row	1.7-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Application should be made prior to emergence of the crop. Emerged asparagus at time of application will be killed.
ASPARAGUS Preemergence to established plantings at least 2 years old.	Broadcast or Banded Over-Row	1.7-2.7 pts.	Ground: 10 gals.	6	• Do not make more than 3 applications per year. • Application should be made prior to emergence of the crop or after last harvest. • Emerged asparagus at time of application will be killed.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
BEANS, DRY **Not for use in California** Sweet lupin White sweet lupin White lupin Grain lupin Adzuki beans Asparagus beans Black beans Broad beans Field beans Garbanzo beans Kidney beans Lablab beans Moth beans Mung beans Navy beans Pinto beans Rice beans Tepary beans Urd beans Guar **PEAS, DRY** **Not for use in California** Blackeyed peas Chickpeas Cowpeas Crowder peas Southern peas Catjang	Harvest-Aid	0.8-1.3 pts.	Ground: 20 gals. Air: 5 gals.	7	• Do not make more than 2 applications per year. • Add nonionic spreader at 1 qt./100 gals.of spray mix. • Use a single application of the higher rate for vining type beans or bush type with lush growth. • May also be applied as a split application and may improve vine coverage. However do not make more than 2 applications per year or exceed a total of 1.3 pints per acre. • Apply when at least 80% of the pods are yellowing and mostly ripe and when leaves are no more than 40% of bush type peas or beans or 30% of vine type peas or beans are green . • Do not apply when weather conditions favor spray drift. To reduce drift, a drift control agent may be included. • Not registered for use in dry beans and dry peas in California.
BERRIES Blackberry Blueberry Boysenberry Currant Elderberry Gooseberry Huckleberry Loganberry Raspberry	Postemergence Directed Spray	1.3-2.7 pts.	Ground: 50 gals.	—	• Do not make more than 5 applications per year. • New canes or shoots can be injured. Therefore, apply before their emergence. • To prevent crop injury from spray mist, apply as a coarse spray.
CACAD	Directed Spray	1.3-2.7 pts.	Ground: 50-200 gals.	1	• Do not make more than 5 applications per year. • Apply when weeds are succulent and growth is from 1-6".

					• Retreatment or spot treatments may be necessary for mature woody weeds, late-germinating weeds and grasses and for perennials. • Use a shield for young trees to prevent sprays from contacting cacao plants, as injury may result. • Do not spray under windy conditions. • Do not graze treated areas or feed treated cover crops to livestock.
CASSAVAS, TANIERS & YAMS (Puerto Rico only)	Shielded Post Directed Spray	1.3 pts.	Ground: 50 gals.	90	• **Cassavas and Taniers:** Do not make more than 3 applications per year. • Yams: Do not make more than 2 applications per year. • Make applications when weeds are succulent and growth is f-6". • Prevent spray from contacting crop to prevent injury to crop. • Do not spray under windy conditions. • Do not graze treated areas or feed treated forage to livestock.

General Information for Chemical Fallow

- As the density of stubble, crop residue or weeds increases, use higher spray volumes for better coverage.
- To control volunteer wheat or downy brome, fall-applied treatments generally work best with PARAQUAT CONCENTRATE. If possible, tank mix with atrazine for maximum burndown and residual control.
- Apply from immediately after harvest up to emergence of the newly seeded crop as a broadcast or band treatment.
- Before applying PARAQUAT CONCENTRATE, cut wheat as high as possible to avoid cutting weeds too short, and allow the weeds to grow at least 2-3" after harvest.
- The addition of dicamba (Banvel) or 2,4-D ester (Low Volatile) may aid in the suppression of emerged perennial broadleaf weeds and large annual broadleaf weeds. Always refer to the product label(s) for 2,4-D ester (Low Volatile), Banvel, or residual herbicide for rates of applications, directions for use, limitations, and restrictions.
- It is permissible to tank mix with registered residual herbicide combinations other than listed for extended weed control during the fallow period
- Weeds and grasses emerging after application and weeds taller than 6 inches will not be controlled.
- Crop plants emerged at the time of application will be killed.
- The minimum total spray per acre allowed is 5 gallons for ground and 5 gallons for air applications.
- Apply 5-60 gallons spray mix per acre by ground application.

  When applying at less than 10 GPA by ground:
  Do not apply with floaters or exceed a speed of 10 mph.
  Apply with flat fan nozzles at 30-40 psi.
  Apply only in a tank mix with atrazine at a minimum of 0.5 lb. a.i./acre.
  By air: apply in 5-10 gallons of spray mix per acre.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
CHEMICAL FALLOW Continuous Wheat (2-3 month recropping interval)	Broadcast	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2.0 pts. Weeds 6": 2-2.7 pts.	Ground: 5 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Apply at least 45 days before seeding. • For volunteer wheat or downy brome control in spring, use at least 1.3 pts. of PARAQUAT CONCENTRATE per acre with a Photosynthetic Inhibitor Herbicide. • Refer to the section "General Information for Chemical Fallow".
CHEMICAL FALLOW Wheat-Fallow-Wheat Rotations (Fall applied after harvest; seeded 12-14 months later)	Broadcast	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2 pts. Weeds 6": 2-2.7 pts.	Ground: 5 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Spray before weeds produce seeds. • Control of volunteer wheat and downy brome control increases when applications are made late August or early September. • For improved burndown and residual control of weeds, tank mix with Atrazine, Marksman® Herbicide, or Command® Herbicide. • For improved burndown and residual control of grass and broadleaf weed tank mix with metribuzin (Sencor 75DF). • Always refer to the respective product label(s) for rates of applications, directions for use, limitations, and restrictions. • Refer to the section "General Information for Chemical Fallow".
CHEMICAL FALLOW Wheat-Fallow-Wheat Rotations (Spring applied: seeded 3-5 months later)	Broadcast	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2 pts. Weeds 6": 2-2.7 pts.	Ground: 5 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • To conserve moisture, application should be made March 1 to April 15, prior to spring rains. • Even though moisture loss is greater when applications are made after the boot stage, volunteer wheat is easier to control after this stage. • For volunteer wheat or downy brome control in spring, use at least 1.3 pts. of PARAQUAT CONCENTRATE per acre with a Photosynthetic Inhibitor Herbicide. • Refer to the section "General Information for Chemical Fallow". • For burn down and residual control of grass and broadleaf weeds, tank mix with metribuzin, (Sencor 75DF/Lexone). • Always refer to the label for metribuzin (Sencor 75DF/Lexone) for rates of applications, directions for use, limitations, and restrictions.
CHEMICAL FALLOW Wheat-Annual Crop-Wheat Rotations (Fall applied in wheat stubble)	Broadcast	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2 pts. Weeds 6": 2-2.7 pts.	Ground: 5 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • For improved burndown and residual weed control, tank mix with Atrazine or Marksman. Always refer to the respective product label(s) for rates of applications, directions for use, limitations, and restrictions. • Make applications after wheat harvest and before weeds produce seed. • If grasses such as foxtails or barnyardgrass recover, respray before seed production. • Applications made late August to November help control volunteer wheat and downy brome. • Refer to the section "General Information for Chemical Fallow".
CHEMICAL FALLOW Wheat-Annual Crop-Wheat Rotations (Spring applied prior to planting an annual crop)	Broadcast	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2 pts. Weeds 6": 2-2.7 pts.	Ground: 5 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • For enhanced burndown and residual weed control, tank mix with Atrazine. Always refer to the respective product label(s) for Atrazine for rates of applications, directions for use, limitations, and restrictions. • For volunteer wheat or downy brome control in spring, use at least 1.3 pts. of PARAQUAT CONCENTRATE per acre with a Photosynthetic Inhibitor Herbicide. • Refer to the section "General Information for Chemical Fallow". • Refer to the Atrazine label for directions pertaining to soil pH and recropping intervals.

'Approved Annual Crops are grain sorghum, corn, wheat, or proso millet.

Crop	Weeds	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
CLOVER AND OTHER LEGUMES Including velvetbean, lespedeza, lupine, sainfoin, trefoil, vetch, crown vetch, and milk vetch. **Dormant Season** On established plantings: Region A – See table at end of Alfalfa section.	For desiccation of weeds, including London rocket, sowthistle, rescue brome, wild oats, chickweed, ryegrass, bluegrass, cheatgrass, dogfennel, tansymustard, henbit, downy brome, and other winter annuals, and suppression of perennial weeds. **California** • Use for desiccation of weeds including bluegrass, ryegrass, shepherdspurse, chickweed, tansy mustard, foxtail, sowthistle and groundsel.	Broadcast	1.3-2.1 pts.	Ground: 10 gals. Air: 5 gals.	60	• Do not make more than 1 application per year. • Applications should be made during late fall or winter months after the last cutting and before first spring cutting. • Do not apply if regrowth after grazing or cutting is more than 2". • Do not harvest within 60 days of application. • CAUTION: Stand and/or yield reductions may occur when applications are made to clover or other legumes that are not dormant, or have broken dormancy. Therefore, it may be necessary to replant. Burning will occur to green clover or other legumes' foliage present at the time of application. • Discoloration and temporary stunting will occur in clover or other legumes foliage present at the time of application. • If there is severe weed infestation, the total hay yield of first cutting may be reduced in clover or other legumes fields and is usually directly roportionate to the loss of weed weight. In California: • If ryegrass, shepherdspurse, sowthistle or groundsel are present, use higher rate.
On established plantings: Region B - See table at end of Alfalfa section.		Broadcast	0.7-1.3pts.	Ground: 10 gals. Air: 5 gals.	60	
On fall-seeded, newly established stands less than 1-year-old: Region A - See table at end of Alfalfa section.		Broadcast	0.7-1.3pts.	Ground: 10 gals. Air: 5 gals.	60	
On fall-seeded, newly		Broadcast	0.5-0.8 pts.	Ground: 10 gals. Air:	60	

established stands less than t-year-old: Region B - See table at end of Alfalfa section.				5 gals.		

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
CORN **FIELD CORN** **POPCORN** **SWEET CORN** **SEED CORN** (Used alone)	Preplant or Preemergence Broadcast or Banded Over Row	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2 pts. Weeds 6": 2-2.7 pts.	Ground: t0 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Includes field, fresh sweet, forage, fodder and popcorn. • To permit maximum weed and grass emergence, seedbeds should be formed as far ahead of planting and treatment as possible. • Seeding should be done with a minimum amount of soil disturbance. • Control will not occur when applications are made after weeds and grasses have emerged. However, crop plants emerged at time of application will be killed.
CORN Tank mixes for no-till/ reduced till	Preplant or Preemergence Broadcast or Banded Over Row	Weeds t-3": 1.3-t.7 pts. Weeds 3-6": 1.7-2 pts. Weeds 6": 2-2.7 pts.	Ground: 10 gals. Air: 5 gals.*	—	• Do not make more than 3 applications per year. • Applications should be made as broadcast sprays before, during or after planting, but before crop emergence. • PARAQUAT CONCENTRATE may be tank mixed with the following herbicides for improved burndown or residual control: 2,4-D Ester (Low Volatile) Harness® Harness® Xtra AAtrex®/Atrazine Lasso® Herbicide Banvel® Linex® Bicep MAGNUM® Lorox® Bicep Lite II MAGNUM® Princep® Dual MAGNUM Prowl® Herbicide Frontier® Simazine® Guardsman® Surpass® EC Harmony® Extra Herbicide Surpass® 100 (Preplant only) Topnotch® • PARAQUAT CONCENTRATE may also be tank mixed with Ambush® insecticide. • Always refer to respective product label(s) for rates of applications, directions for use, limitations, and restrictions. * Always refer to respective product label(s) to confirm if these products can be applied by air.

FIELD CORN, POPCORN, SWEET CORN, SEED CORN	Postemergence Directed Spray (including Hooded or Shielded)	0.7-1.3 pts.	Ground: t0 gals.	—	• Do not make more than 3 applications per year. • Applications should be made when weeds are actively growing. • Use a higher rate on larger or hard to control weeds. Weeds 6" or taller may not be controlled. • Severe damage and/or complete kill can occur if spray contacts corn plants **For Hooded Or Shielded Sprayers:** • Use a hooded or shielded sprayer with skids or wheels on the spray boom to maintain spray height in order to prevent excessive crop phytotoxicity. • Apply by directing spray between the rows and using hooded or shielded sprayers to prevent spray contact with crop plants. **For Directed Spray Without Hooded Or Shielded Sprayers:** Corn height is measure from soil surface to top of whorl. • Apply when corn is at least t0" tall with nozzles arranged to spray no higher than the lower 3" of corn stalks. • Corn plants shorter than t0" may be injured and not recover. • For corn more than 20" tall: Arrange the nozzles to spray no higher than the lower 1/3 of the corn stalks. • Injury to corn foliage will occur if sprayed. However, corn will recover and develop normally.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
FIELD CORN, POPCORN, SEED CORN	Harvest Aid Broadcast	0.8-1.3 pts.	Ground: 20 gals. Air: 5 gals.	7	• Do not make more than one application per year. Make ONE (1) application at least 7 days prior to harvest. • Apply after the corn is mature. This is indicated by a black layer which forms at the base of the kernels. You may consult your local agricultural authority for help in identifying the black layer. • Add nonionic surfactant containing at least 75% surface active ingredient at 0.25% v/v. • To desiccate mature broadleaf weeds and grasses or broadleaf weeds and grasses that are taller than 18", use 1.3 pts. • Orought stressed plants, especially broadleaf weeds, can be difficult to kill, and desiccation may not be complete.
FIELD CORN ONLY (grain, fodder, forage)	Postemergence Directed Spray USDA Witchweed Eradication	t.3 pts.	Ground: t0 gals.	—	• Do not make more than 3 applications per year. • If regrowth occurs, initiate sprays in late June to early July and repeat in early August. • Follow application

	Program				instructions in post-emergence directed spray section above.
FIELD CORN ONLY (grain, fodder, forage) 2,4-D Amine AE Tank Mix	Postemergence Directed Spray USDA Witchweed Eradication Program	5.4 fl. oz. +0.5 lb. 2,4-D Amine AE	Ground: 10 gals.	—	• Do not make more than 3 applications per year. • Apply as directed spray onto grassy weeds and witchweed before witchweed blooms. If regrowth occurs, reapply. • Follow application instructions in post-emergence directed spray section above. • Always refer to respective product label(s) for rates of applications, directions for use, limitations, and restrictions.
COTTON (Used alone)	Preplant or Preemergence	1.7-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Apply prior to, during or after planting, but before crop emergence. • For fallow bed treatment, beds should be preformed to permit maximum weed and grass emergence prior to treatment. • Seeding should be done with a minimum of soil disturbance.
COTTON (California only; Used alone)	Preplant	5.4-10.7 fl. oz.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • For control of volunteer barley in preformed seedbeds.
COTTON Goal® Herbicide Tank Mix	Preplant or Fallow Bed Broadcast	1.7-2.7 pts.	Ground: or Air: 10 gals.	—	• Do not make more than 3 applications per year. • Always refer to the Goal label for weeds controlled, rates of applications, and directions for use, limitations, and restrictions.
COTTON Other Tank Mixes	Preplant or Preemergence	1.7-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Apply as a broadcast spray before, during or after planting, but before crop emergence. • For improved residual control or burndown, PARAQUAT CONCENTRATE may be tank mixed with the following herbicides: o Caparol® Herbicide o Cotoran® Herbicide o Cotton-Pro® Herbicide o Diurone® o Dual MAGNUM® o Harmony Extra (Preplant Only) o Meturon® Herbicide o MSMA o Prowl® o Zorial® Herbicide • When tank mixing with Cotoran DF® or Meturon DF®, follow mixing instructions carefully, maintain constant agitation, and see Order of Tank Mixing section in respective

					labels. • When tank mixing with any of the herbicides listed above, always refer to respective product label(s) for weeds controlled, rates of applications, directions for use, limitations, and restrictions.

COTTON Harvest Aid Use Restrictions

. Do not make more than 4 applications per year.

. Do not pasture livestock in treated fields or feed treated foliage.

. Do not apply to cotton within 3 days before harvest.

. Repeat application if necessary. Do not exceed a total of 1.3 pts./A as a harvest aid.

. May be tank mixed with other cotton harvest aid materials known to be effective by a local expert. Unless otherwise instructed in this label, always refer to the respective product label(s) for rates of applications, directions for use, limitations, and restrictions.

. • PARAQUAT CONCENTRATE can be applied in a tank mix with methyl parathion and/or Karate® insecticide. Always refer to the respective product label(s) for rates of applications, directions for use, limitations, and restrictions.

. Nodes above cracked bolls (NACB) timing is for guidance and is not intended to restrict the local expert in their use of the product.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
SOUTHERN COTTON Harvest aid for boll opening and defoliation (Tank mix with phosphate and chlorate defoliants).	Broadcast	5.4 fl. oz. + 1 pt. phosphate or 1 gal. chlorate	Ground: 10 gals. Air: 5 gals.	7	• Do not make more than 4 applications per year. • Development of immature bolls will be inhibited. • Apply when 80% or more of the bolls are open and the remaining bolls to be harvested are mature. • Always refer to tank mix product label(s) for rates of applications, directions for use, limitations, and restrictions.
SOUTHERN COTTON Additional tank mixes for boll opening and defoliation	Broadcast	2.1-3.3 fl. oz.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 4 applications per year. • PARAQUAT CONCENTRATE may be tank mixed with the following products to aid in defoliation and opening of mature bolls. Accelerate® Defoliant Def® Defoliant Dropp® Defoliant Ethephon Plant Growth Regulator Folex® Defoliant Harvade® Harvest Growth Regulator Prep™ PGR • Apply when 60% or more of the bolls are open and the remaining bolls to be harvested are mature. • Development of immature bolls will be inhibited. • Always refer to tank mix product label(s) for rates of applications,

					directions for use, limitations, and restrictions.
SOUTHERN COTTON Post Defoliation - To aid in opening of mature bolls and to desiccate green weeds.	Broadcast	0.7-1.3 pts.	Ground: 10 gals. Air: 5 gals.	3	• Do not make more than 4 applications per year. • If weed infestation is heavy or dense, use higher rate. • Apply when 75% or more of bolls are open and remaining bolls to be harvested are mature. • Development of immature bolls will be inhibited. • After a defoliation or conditioning application has been made, delay desiccation application of PARAQUAT CONCENTRATE approximately 3-7 days to minimize leaf sticking.
WESTERN COTTON Harvest aid for boll opening and early defoliation	Broadcast	3.7-5.4 fl. oz. + phosphate or sodium chlorate; and/ or other compatible harvest aid products.	Ground: 10 gals. Air: 5 gals.	7	• Do not make more than 4 applications per year. • On rank cotton, use higher rate. • Do not use more than 5.4 fl. oz of PARAQUAT CONCENTRATE for early defoliation as excessive desiccation may occur. • Early defoliation timing is when 60% or more of the bolls are open and the remaining bolls to be harvested are mature (approximately 4 NACB). • Development of immature bolls will be inhibited. • Do not use more than 4.0 lbs. of actual sodium chlorate defoliant per acre at this early defoliation timing. • Always refer to tank mix product label(s) for rates of applications, directions for use, limitations, and restrictions.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
WESTERN COTTON Harvest aid for boll opening and mid-to-late defoliation	Broadcast	5.4-10.7 fl. oz. alone or tank mix with sodium chlorate or phosphate defoliation and/ or other compatible harvest aid products.		3 (Alone)	• Do not make more than 4 applications per year. • Use the 10.7 fl. oz. rate of PARAQUAT CONCENTRATE in desert cotton areas or on rank vigorous cotton. • Mid-to-late defoliation timing is when 75% or more of the bolls are open and remaining bolls to be harvested are mature (approximately 3 or fewer NACB). • Development of immature bolls will be inhibited. • Always refer to tank mix product label(s) for rates of applications, directions for use, limitations, and restrictions.
COTTON Stripper or Spindle Harvested Harvest aid for defoliation and boll opening.	Broadcast	2.1-7.5 fl. oz.	Ground: 10 gals. Air: 5 gals.	3	• Do not make more than 4 applications per year. • BECAUSE OF EXTREMES IN ENVIRONMENTAL AND PLANT CONDITIONS, IT IS ADVISABLE TO APPLY THE RANGE OF RATES ON A SMALL BLOCK OF COTTON TO DETERMINE THE RATE THAT BEST FITS YOUR NEEDS. • Apply when 75% of the bolls are open and the remaining bolls to be harvested are mature. • DEVELOPMENT OF IMMATURE BOLLS WILL BE INHIBITED, SLICE BOLLS AND INSPECT THE SEED FOR

					MATURITY. • PARAQUAT CONCENTRATE may be applied alone or tank mixed with the following cotton harvest aids: Accelerate Defoliant® Def Defoliant® Dropp Defoliant® Ethephone Plant Growth Regulator Folex Defoliant® Harvade® Harvest Growth Regulator Prep™ PGR • May be applied as a split application. Do not exceed a total of 1.3 pts./A. • To avoid leaf sticking, apply PARAQUAT CONCENTRATE as a desiccant approximately 3-7 days after defoliant or a conditioning application and 7-14 days before harvest. • Cooler temperatures may cause a longer waiting period between application of PARAQUAT CONCENTRATE as a desiccant and defoliation/ conditioner. • South of Interstate-10 in Texas, where temperatures are typically higher during defoliation, lower rates in the range may be necessary. • Always refer to tank mix product label(s) for rates of applications, directions for use, limitations, and restrictions.
COTTON Late season desiccation	Broadcast	0.7-1.3 pts.	Ground: 10 gals. Air: 5 gals.	3	• Do not make more than 4 applications per year. • BECAUSE OF EXTREMES IN ENVIRONMENTAL AND PLANT CONDITIONS, IT IS ADVISABLE TO APPLY THE RANGE OF RATES ON A SMALL BLOCK TO DETERMINE THE RATE THAT BEST FITS YOUR NEEDS. • May be applied as a split application. Do not exceed a total of 1.3 pts./A. • Apply when 85% of the bolls are open and the remaining bolls to be harvested are mature (approximately 0 NACB). • Development of immature bolls will be inhibited. Slice bolls and inspect the seed for maturity. • South of Interstate-10 in Texas, where temperatures are typically higher during defoliation, lower rates in the range may be necessary. • Delay desiccation application of PARAQUAT CONCENTRATE approximately 3-7 days to minimize leaf sticking if a defoliation or conditioning application has been made. • May be tank mixed with other harvest aid materials known to the local expert to be effective.
COTTON Desiccation of regrowth	Broadcast	0.75-1.25 pts.	Ground: 10 gals. Air: 5 gals.	3	• Do not make more than 4 applications per year. • Use to desiccate regrowth occurring after defoliation or desiccation. • Because regrowth is difficult to control, thorough coverage with the full listed rate is necessary. • Control is dependent on growing conditions and desiccation of small new regrowth may not always be complete. • If regrowth is excessive, use higher rate.
EASTER LILIES (Field grown)	Preemergence	1.7-2.7 pts.	Ground: 10 gals.	—	• Do not exceed two applications per year.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
FALLOW LAND Prior to planting of any crops.	Preplant Broadcast to Fallow Land	1.0-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 2 applications per year, during the fallow period. • Fallow land may be between operations such as disking, ripping, plowing, leveling, irrigating or listing for ground preparation purposes. • Use for the control of weeds such as bluegrass, chickweed, henbit, downy brome, ryegrass, cheatgrass, dog fennel, tansy mustard, London rocket, sowthistle, rescue brome, wild oats, volunteer cereals and other winter annuals and for suppression of perennial weeds or sedges. • For weeds approaching the maximum size of 6", the higher rate may be used. • No more than 2 applications should be made during the fallow period. • Prior to application allow maximum weed emergence to maximize the benefit of this use. • Adhere to the preharvest intervals and other crop specific restrictions for planted crops elsewhere on this label.
GRASSES (For seed) (For use in seedbed preparation)	Preplant, at Planting, or Preemergence	1.3-2.7 pts.	Ground: 10 gals.	—	• Do not make more than 3 applications per year. • Prepare the seedbeds and allow weeds to germinate. • Apply PARAQUAT CONCENTRATE when weeds are at the 3-5 leaf stage. • Applications may be repeated as necessary (but only up to 3 applications per year) prior to grass emergence. • Do not graze treated areas or use the seed or straw from treated areas for animal feed or bedding.
GUAR (Preharvest desiccation)	Preharvest	1.3 pts.	Ground: 10 gals.	4	• Do not make more than 3 applications per year. • Apply after the pods are fully mature. • Do not graze treated areas or use the treated forage for animal feed.
GUAVA	Directed Spray	2.5 pts.	Ground: 10 gals.	—	• Do not make more than 4 applications per year. • Do not allow spray to contact green stems, fruit or foliage. • Do not graze treated areas. • Do not feed cover crops grown in treated areas to livestock. • Retreatment or spot spraying may be necessary for mature woody weeds, late-germinating weeds and grasses, and perennials.
HOPS (ID, OR, & WA only)	Directed Spray and/ or Suckering and Stripping.	1.3 pts.	Ground: 10 gals.	14	• Do not make more than 3 applications per year. • Retreatment of spot treatment may be necessary. • Do not allow spray to contact green stems, foliage, flowers, or cones as injury may result. • Do not allow animals to graze in treated hopyards.

					• Silage and hop vine refuse may be fed to livestock. • Spray only the basal 2 ft. of the vines for sucking and stripping. Repeat as necessary, but only up to 3 applications per season. • Experience with varieties other than Cascade, Yakima Cluster, and Bullion is limited. If using PARAQUAT CONCENTRATE on other varieties than these, test the use pattern on a small number of vines of each variety to determine sensitivity to injury. Do not use on unlisted varieties if unacceptable crop injury occurs. • Chemical Pruning: Spray when vines are less than 3 ft. tall to burn back existing vines and obtain even emergence of subsequent vines. • APPLICATION TO HOP VINES LESS THAN 6 FT. TALL MAY CAUSE UNACCEPTABLE INJURY.
LENTILS NOT REGISTERED FOR USE ON LENTILS IN CALIFORNIA.	Harvest Aid	0.8-1.3 pts.	Ground: 20 gals. Air: 7 gals.	7	• Do not make more than 2 applications per year. • Add nonionic surfactant at 0.25% v/v (2 pts./100 gals.) of the finished spray volume. • May also be applied as a split application. DO NOT make more than 2 applications or exceed a total of 1.3 pts./A. The split application may improve coverage. • Apply when crop is mature and at least 80% of the pods are yellowing and mostly ripe with no more than 30% of the leaves still green in color. • DO NOT apply when weather conditions favor spray drift. To reduce spray drift a drift control agent may be included.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
MINT (Peppermint, Spearmint)	Dormant Season	1.3-2.0 pts.	Ground: 10 gals. Air 5 gals.	-	• Do not make more than 2 applications per year. • For suppression of weeds such as groundsel, chickweed, downy brome, bluegrass, Italian ryegrass, prickly lettuce. • Apply when crop is dormant before spring growth begins and when weeds are less than 6" tall. • Do not apply more than 2.0 pts./A per dormant season. • May be tank mixed with Sinbar® Herbicide (terbacil) weed killer for improved contact activity and residual control of Italian ryegrass, prickly lettuce and groundsel. Apply this tank mixture no more than once per season. Always refer to Sinbar (terbacil) label for weeds controlled, rates of applications, directions for use, limitations, and restrictions.
ONIONS (seeded) AND GARLIC	Preplant/ Preemergence	1.7-2.7 pts.	Ground: 10 gals.	60 200 (CA only)	• Do not make more than 1 application per year. • For heavy weed infestations or wild oat control use the higher rate. Apply only one application per season at the 2.7 pts./A dosage. • Allow maximum weed and grass emergence prior to treatment but apply prior to crop emergence. • Apply a maximum of 2.7 pts./A per season.
PASSION FRUIT	Directed Spray	2.5 pts.	Ground: 10 gals.		• Do not make more than 5 applications per year. • If bark is still green at application time, use a shield or wrap vine. • Pick all fruit off the ground prior to application if application is to be made during harvest season.

					• Do not allow animals to graze on treated areas. • It may be necessary to retreat or spot treat.
PEANUTS	Broadcast At Ground Crack Postemergence	5.4-10.8 ft. oz.	Ground: 10 gals.		• Do not make more than 2 applications per year. • To control or suppress small (1-6") emerged annual grass and broadleaf weeds in peanuts at ground crack. A second application may be made up to 28 days after ground crack. • For at ground crack use, PARAQUAT CONCENTRATE can be tank mixed with Pursuit® Herbicide or Dual MAGNUM for residual weed control. • Always refer to the Pursuit or Dual Magnum label for a list of weeds controlled, application rates, necessary precautions, and use limitations. • Make no more than 2 applications per season and do not apply a total of more than 10.8 fl. oz. of product per acre per season. • Crop foliage sprayed will be injured in the form of bronzing and crinkling, but the crop will recover and develop normally. • Do not apply by air.
PEANUTS Basagran® Herbicide Tank Mix	Broadcast At Ground Crack Postemergence	5.4-10.8 ft. oz.	Ground: 10 gals.	—	• Do not make more than 2 applications per year. • Tank mix PARAQUAT CONCENTRATE with Basagran at 1 pt./A. for improved control of weeds such as cocklebur, bristly starbur, smartweed and prickly sida. • This tank mix can be applied at the ground crack stage of peanuts. A second application may be made up to 28 days after ground crack. • Make no more than 2 applications per season and do not apply a total of more than 10.8 fl. oz. of product per acre per season. • Crop foliage sprayed will be injured in the form of bronzing and crinkling, but the crop will recover and develop normally. • Always refer to the Basagran label for weeds controlled, rates of applications, directions for use, limitations, and restrictions. • If peanuts show injury (leaf phytotoxicity and/or plant stunting) produced by any other herbicide treatment, do not apply this tank mix as injury may be enhanced and/or prolonged. • During prolonged periods of drought or unseasonably cold weather do not apply this tank mix as unsatisfactory weed control may result. • Do not apply by air.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
PEANUTS Butyrac® Herbicide or Butoxone® 200 Herbicide Tank Mix	Broadcast Postemergence	5.4-10.8 fl. oz.	Ground: 10 gals.	—	• Do not make more than 2 applications per year. • For improved control of weeds such as cocklebur, sicklepod and morningglory, tank mix PARAQUAT CONCENTRATE with 8-16 oz. (0.125-0.25 lbs.) per acre of Butyrac or Butoxone 200. • Do not apply a total of more than 10.8 fl. oz. of product per season and make no more than 2 applications per season • Crop foliage sprayed will be injured in the form of bronzing and crinkling but the crop will recover and develop normally.

					• Always refer to the Butyrac or Butoxone 200 labels for weeds controlled, rates of applications, directions for use, limitations, and restrictions. • Do not apply by air.
PIGEON PEAS (Puerto Rico only)	Directed Spray	1.3 pts.	Ground: 10 gals.	60	• Do not make more than 1 application per year. • Avoid contact with pigeon pea foliage. • Do not make more than 1 application per season. • Do not graze treated areas or feed treated forage to livestock. • Cannery waste can be fed to livestock.
PINEAPPLE	Directed Spray	1.3-2.7 pts.	Ground: 10 gals.	20	• Do not exceed 3 applications per season. • More mature weeds may require retreatment.
POTATO	Preplant or Preemergence Broadcast	0.7-1.3 pts.	Ground: 10 gals. Air: 5 gals.		• Do not make more than 3 applications per year. • Apply up to ground cracking stage, before potatoes have emerged.
POTATO (California, Washington, Oregon, Idaho only; used alone)	Preplant Broadcast	0.4-0.7 pts.	Ground: 10 gals. Air: 5 gals.		• Do not make more than 3 applications per year. • For control of volunteer barley in preformed seedbeds.
POTATO Fresh Market Only Preharvest vine killing and weed desiccation. For Use Only in the states of: Colorado, Delaware, Idaho, Illinois, Indiana, Kansas, Maine, Maryland, Massachusetts, Michigan, Minnesota, Nebraska, Nevada, New Jersey, New York, North Dakota, Ohio, Oregon, Pennsylvania, South Oakota, Utah, Washington, Wisconsin and Wyoming	Broadcast	0.7-1.3 pts.	Ground: 20 gals.	3	**For Fresh Market Potatoes Only.** (Fresh Market Potatoes include potatoes that are sent directly from the field to a consumer, grocery store, or processor for use.) • **DO NOT** make more than 2 applications per year. • **DO NOT** use on potatoes that will be stored as tuber decomposition may result. Potatoes must be harvested promptly after desiccation and processed or consumed immediately. • **DO NOT** apply to drought stressed potato vines. • **DO NOT** use to desiccate the vines of seed potatoes as seed pieces may fail to germinate and grow normally. • **DO NOT** pasture livestock in treated potato fields. • **DO NOT** exceed 2.6 pts./A per season. • Begin application when leaves begin to turn yellow. • Immature potato foliage is tolerant to PARAQUAT CONCENTRATE. However, desiccation will not be complete under this condition. • Use 1.3 pts./A rate where quick vine kill is desired. • For dense vine growth, use 2 applications of 0.6 pt/ A. Split applications must be applied a minimum of five days apart.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
RICE	Preplant or Preemergence Broadcast	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": t.7-2.0 pts. Weeds 6": 2-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Apply as a broadcast spray before, during or after planting, but before crop emergence. When vegetation is dense, use higher rates and spray volumes. • Seeding should be done with a minimum amount of soil disturbance. • This product will not control weeds and grasses emerging after application. Crop plants emerged at time of application will be killed. • PARAQUAT CONCENTRATE may be tank mixed with other herbicides registered for this use for improved or extended weed control. Always refer to the tank mix product label(s) for weeds controlled, rates of applications, directions for use, limitations, and restrictions. • Do not flood/flush within 48 hours of application in order to ensure complete kill of vegetation. If cool, cloudy and/or wet weather delays speed of kill, do not flood/flush until complete kill is evident.
SAFFLOWER	Preplant or Preemergence Broadcast or Banded Over Row	1.7-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Apply before, during and after planting but before crop emergence.
SAFFLOWER (California only)	Preplant Broadcast	0.7 pt.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • For control of volunteer barley in preformed seedbeds.
SMALL GRAINS (Barley, wheat)	Preplant or Preemergence	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2 pts. Weeds 6": 2-2.7 pts.	Ground: 5 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year.
SMALL GRAINS (Wheat Only) Hoelon® 3EC Tank Mix	Preplant or Preemergence	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2 pts. Weeds 6": 2-2.7 pts.	Ground: t0 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • A tank mix with Hoelon 3EC will improve grass control. • Apply when weeds are actively growing and 1-6" in height. Weeds 6 inches or taller may not be controlled. • Do not apply this tank mix to barley as crop injury may result. • Always refer to the Hoelon 3EC label for weeds controlled, rates of applications, directions for use, limitations, and restrictions.
SORGHUM (Grain)	Preplant/ Preemergence Broadcast or Band	Weeds 1-3": 1.3-t.7 pts. Weeds 3-6": t.7-2 pts. Weeds 6": 2-2.7 pts.	Ground: 10 gals. Air: 5 gals.	48 (grain) 20 (forage)	• Do not make more than 3 applications per year. • To allow maximum weed and grass emergence, seedbeds should be formed as far ahead of planting as possible • Seeding should be done with a minimum amount of soil disturbance.

SORGHUM (Grain) Atrazine & 2,4-D ester [Low Volatile] Tank Mix	Preplant or Preemergence	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2 pts. Weeds 6": 2-2.7 pts.		48 (grain) 20 (forage)	• Do not make more than 3 applications per year. • PARAQUAT CONCENTRATE may be tank mixed with Atrazine for improved preemergence or residual weed control. The addition of 2,4-D ester (Low Volatile) may assist in the suppression of perennial and annual broadleaf weeds emerged at the time of application. Always refer to the specific product label(s) for weeds controlled, rates of applications, directions for use, limitations, and restrictions.
SORGHUM (Grain) Harmony® Extra Herbicide Tank Mix	Preplant	1.3-2.5 pts.	Ground: 10 gals.	48 (grain) 20 (forage)	• Do not make more than 3 applications per year. • For Improved weed control, PARAQUAT CONCENTRATE may be tank mixed with Harmony Extra. • Always refer to the Harmony Extra label for weeds controlled, rates of applications, directions for use, limitations, and restrictions.

Crop	PARAQUAT CONCENTRATE Use Pattern	Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
SORGHUM (Grain)	Postemergence Directed (Including Hooded or Shielded)	0.7-1.3 pts.	Ground: 10 gals.	48 (grain) 20 (forage)	• Do not make more than 2 applications per year. • Apply when weeds are actively growing. • Use higher rate on larger or hard to control weeds. Weeds 6" or taller may not be controlled. • Severe damage and/or complete kill can occur if spray contacts sorghum plants. • Do not exceed 2 postemergence-directed applications or exceed a total of 5.3 pts. PARAQUAT CONCENTRATE per season. **HOODED OR SHIELDED SPRAYERS** • To avoid excessive crop phytotoxicity, use a hooded or shielded sprayer with skids or wheels on the spray boom to maintain spray height. • Apply by directing spray between the rows and by using hooded or shielded sprayers to prevent spray contact with crop plants. **DIRECTED SPRAY WITHOUT HOODED OR SHIELDED SPRAYERS** • Apply when sorghum is at least 12" tall when naturally standing. • Do not exceed 30 psi nozzle pressure or spray under conditions which may cause excessive drift. • Use precision directed-spray application equipment adjusted so that no more than the lower 3" of the sorghum stalk is contacted by the application spray. • Some crop injury will occur. The degree of injury is related to the precision of application and spraying conditions.
SOYBEANS	Preplant or Preemergence	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Do not exceed a total of 4.0 pts. of PARAQUAT CONCENTRATE per season. • Apply as a broadcast spray before, during or after planting, but before crop emergence. • PARAQUAT CONCENTRATE may be tank mixed with the following herbicides for improved burndown or residual control:

		Weeds 6": 2-2.7 pts.			2,4-DB Canopy Dual MAGNUM Goal Harmony Extra {Preplant Only} Lasso Lexone Linex Lorox Lorox Plus Prowl Pursuit Herbicide Scepter Herbicide Sencor Herbicide Surflan® Herbicide Turbo Herbicide • The rate of this product to be used in these tank mixtures is dependent on weed height and growing conditions. Where weed canopy is dense or under dry conditions, use the highest rate of PARAQUAT CONCENTRATE. Always refer to the respective product label(s) for a list of weeds controlled, rates of applications, directions for use, limitations, and restrictions. • The lower application rate may be used when weeds are less than 4" tall and a selective postemergence spray or cultivation will be made within 3 weeds after planting. • Seeding should be done with a minimum amount of soil disturbance. • Do not graze or harvest for forage or hay before the R3 stage of soybean development (early pod).
SOYBEANS 2,4-D ester (Low Volatile) Tank Mix	Preplant or Preemergence	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2 pts. Weeds 6": 2-2.7 pts.	Ground: 10 gals. Air: 5 gals.		• Do not make more than 3 applications per year. • Apply 2,4-D ester (Low Volatile) at 0.35-0.475 lbs. a.i./A at least 7 days prior to planting. • Apply 2,4-D ester (Low Volatile) at 0.475-0.95 lbs. a.i/A at least 30 days prior to planting. • Do not apply 2,4-D ester (Low Volatile) prior to planting soybeans if you are not able to accept the results of soybean injury including possible loss of stand and yield. • Do not use amine formulation as PARAQUAT CONCENTRATE activity may be reduced. • May be tank mixed with residual herbicides listed above. • Always refer to the 2,4-D ester (Low Volatile) label for weeds controlled, rates of application, directions for use, limitations, and restrictions.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
SOYBEANS	Postemergence Directed Spray (Includes Hooded or Shielded)	3.0-5.3 fl. oz.	Ground: 10 gals.	—	• Do not make more than 3 applications per year. • Apply when weeds are actively growing. • Use the lower rate of PARAQUAT CONCENTRATE for control of seedling johnsongrass, crabgrass, goosegrass, Brachiaria, Texas millet and pigweed less than 2" tall. • For control of 2-4" red rice, Brachiaria, barnyard grass, crabgrass, goosegrass, seedling johnsongrass, giant foxtail, and fall panicum, use 5.3 fl. oz. of PARAQUAT CONCENTRATE. • Use 5.3 fl. oz. of PARAQUAT

					CONCENTRATE for control of 2-3" sicklepod, purslane, pigweed, cutleaf ground cherry, and common ragweed. • Apply PARAQUAT CONCENTRATE at 5.3 fl. oz./A plus 0.2 lb. active ingredient per acre of a 2,4-D formulation for control of 2-4" grasses in mixture with common cocklebur, morningglory, and red rice. • Always refer to the 2,4-D label for weeds controlled, rates of applications, directions for use, limitations, and restrictions • Do not graze or harvest for forage or hay. • If necessary, make a second and final application 7-14 days later. **HOODED OR SHIELDED SPRAYERS** • Apply by directing spray between the rows and using hooded or shielded sprayers to prevent spray contact with crop plants. • Use higher rate on larger (less than 6") or hard to control weeds. Weeds 6" or taller may not be controlled. • Severe damage and/or complete kill can occur if spray intentionally or accidentally (including drift of fine droplets) contacts the plants. **DIRECTED SPRAY WITHOUT HOODED OR SHIELDED SPRAYERS** • Do not treat on soybeans that are less than 8" tall. • Use precision directed spray application equipment adjusted so that no more than the lower 3" of the soybean plant is contacted by the application spray. • Do not exceed 30 psi nozzle pressure or spray under conditions which may cause excessive drift. • Some crop injury will occur. The degree of injury is dependent upon the precision of application and spraying conditions.
SOYBEANS	Harvest Aid	5.4-10.7 fl. oz.	Ground: 20 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Indeterminant varieties: Applications should be made when at least 65% of the seed pods have reached a mature brown color or when seed moisture is 30% or less. Determinant varieties: Apply when plants are mature, i.e., beans are fully developed, 1/2 of leaves have dropped, and remaining leaves are yellowing. • Injury will occur on immature soybeans. • Mature cocklebur, especially drought-stressed plants, are tolerant to PARAQUAT CONCENTRATE and desiccation will not be complete. Always use the higher rate when treating cocklebur. • Do not apply within 15 days of harvest. • Do not graze or harvest for forage or hay.
STRAWBERRIES	Postemergence Directed Spray	1.3 pts.	Ground: 20 gals.	21	• Do not make more than 3 applications per year. • Direct spray between the rows, using shields to prevent spray contact with crop plants. • Do not allow spray to contact strawberry plants as injury or excessive residues may result. • Do not apply more than 3 times per season. • Do not graze livestock in treated areas.
SUGAR BEETS	Preplant or	1.3-2.7 pts.	Ground:	—	• Do not make more than 3 applications per year.

	Preemergence		10 gals. Air: 5 gals.		• For heavier weed infestations, use the higher label rate. • Seeding or transplanting should be done with a minimum amount of soil disturbance. • Crop plants emerged at time of application will be killed. • Can be used in fallow bed/stale seedbed for weed control. • Seedbeds or plantbeds should be formed as far ahead of treatment as possible to permit maximum weed emergence.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
SUGARCANE	Postemergence Directed Spray (includes Hooded or Shielded)			—	General Comments • Do not make more than 2 applications per year, except applications made by air in Florida and Texas in which the maximum number of applications allowed is 1 per year. • Apply as a hooded, shielded or directed spray to avoid contact with cane foliage to prevent leaf burn and yield reduction. • If necessary, a second and final application can be made when new weed growth is 2-6" high. • Do not graze treated areas or feed treated forage to livestock.
—Florida—		1.3 pts.	Ground: 50 gals.	—	• Do not make more than 2 applications per year. • Optimum results can be obtained by applying in early spring (March-April) when weeds are small. • Do not apply after June 1 as cane growth may be stunted and yields reduced.
—Hawaii—		1.3 pts.	Ground: 20 gals.	—	• Do not make more than 2 applications per year. • Do not apply after cane rows have closed in.
—Louisiana—		0.7-2.0 pts.	Ground: 20 gals.	30	• Do not make more than 2 applications per year. • For tiller control, apply when tillers are less than 18" high. • For heavier weed infestations or tiller growth use the higher rate.
—Florida & Texas—	Harvest Aid	0.4-0.7 pts.	Air: 5 gals.	—	• Do not make more than 1 application per year. • Under cool, cloudy weather conditions use higher rate. • Apply 3-14 days before burning and harvest.
SUNFLOWER	Preplant or Preemergence Broadcast or Banded Over Row	1.7-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Apply before, during, or after planting but before crop emergence.
SUNFLOWER	Preharvest Desiccation Broadcast	0.8-1.3 pts.	Ground: 10 gals. Air: 5 gals.	7	• Do not make more than 2 applications per year. • Apply when sunflower seeds reach physiological maturity (when seed moisture is 35% or lower). For many varieties, this is equivalent to the time when the back of the heads are yellow and the bracts are turning brown. • Do not graze treated areas or feed treated

					forage to livestock. • When crop stands or weed infestations are heavy, use the higher label rate.
TARO, DRYLAND (Hawaii Only)	Postemergence Directed Spray	t.3-2.1 pts.	Ground: 10 gals.	180	• Do not make more than 2 applications per year. • Do not allow spray to contact the taro plants as injury may result. • Make the first application when weed growth is 1-4" high. • Weeds emerging after the application will not be controlled. • A single re-treatment may be made; however, do not harvest dryland taro within 6 months of the last application.
TREE PLANTATION ESTABLISHMENT Deciduous and Conifers	Preplant Broadcast	1.3-2.7 pts.	Ground: 20 gals.	—	• Do not make more than 3 applications per year. • To allow maximum emergence of weeds prepare ground early. • Apply prior to planting. Plant with minimal soil disturbance. • For heavier weed infestations, use the higher application rate. • For improved burndown or residual control, tank mix PARAQUAT CONCENTRATE with other herbicides labeled for this use. • Always refer to the specific tank mix herbicide label(s) for weeds controlled, rates of applications, directions for use, limitations, and restrictions. • Do not apply in less than 20 gals./A as weed control will be reduced.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
TREES AND VINES Orchards Vineyards Windbreak, Shade & Ornamental Trees: Acerola Apples Apricots Avocados Bananas Beechnut Brazil nut Butternut Calamondin Cashew Cherries Chestnut Chinquapin Citrus citron Coffee Figs Filberts Grapefruit	Directed Spray	1.7- 2.7 pts.	Ground: 10 gals.	Apricots 28 Cherries 28 Figs 13 Kiwi Fruit 14 Nectarines 28 Olives 13 Peaches 14 Pistachios 7 Plums 28	• Do not make more than 5 applications per year, except for: Apricots, Cherries, Kiwi Fruit, Nectarines, Peaches, Plums, no more than 3 applications per year; Olives, no more than 4 applications and Pistachios, no more than 5 applications but only 2 applications after shells split. • Do not allow spray to make contact with green stems (except suckers), fruit or foliage. • Use the shield or wrap plant when spraying around young trees or vines. • Do not graze treated areas. • Do not feed covered crops grown in treated areas to livestock. • Do not apply when figs, nuts or olives to be harvested are on the ground. • **For apricots** - Do not harvest within 28 days after application and do not exceed 3 postemergence directed applications per season. • **For cherries** - Do not harvest within 28 days after application and do not exceed 3 postemergence directed applications per season. • **For figs** - Do not harvest within 13 days after application and do not exceed 5 postemergence directed applications per season. • **For grapes** - Treat when sucker growth is no more than 8" long. Late

Grapes Hickory nut Kiwi fruit Kumquat Lemon Lime Macadamia nuts Mandarin Nectarines Olives Orange (sour & sweet) Papayas Peaches Pears Pistachios Plums Prunes Pummelo Satsuma mandarin Walnuts Other shade and ornamental trees such as arborvitae, ash, elm, fir, oak, pine, etc.					season applications to weeds should be made to avoid contact with desirable foliage. • **For kiwi fruit** - Do not treat more than 3 times per year. • For mature woody weeds, perennial weeds, late germinating weeds and green suckers, retreatment or spot treatment may be necessary. • **For nectarines** - Do not harvest within 28 days after application and do not exceed 3 postemergence directed applications per season. • **For olives** - Do not harvest within 13 days after application and do not exceed 4 postemergence directed applications per season. • **For peaches** - Do not harvest within 14 days after application, and do not exceed 3 postemergence directed applications per season. • **For pistachios** - Do not exceed 2 applications after shells split. • **For plums** - Do not harvest within 28 days after application and do not exceed 3 postemergence directed applications per season.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
TREES AND VINES Tank Mixes	Directed Spray	1.7-2.7 pts.	Ground: 10 gals.	Always refer to other Tank Mix labels	• Do not make more than 5 applications per year, except for: Apricots, Cherries, Kiwi Fruit, Nectarines, Peaches, Plums, no more than 3 applications per year; Olives, no more than 4 applications and Pistachios, no more than 5 applications but only 2 applications after shells split. • This product may be tank mixed with registered residual herbicides listed below for combined emerged and residual weed control. PARAQUAT CONCENTRATE may be tank mixed with the following herbicides: Devrinol® Herbicide Goal® Karmex® Krovar® Herbicides Princep® Sinbar® Solicam® Herbicide

					Surflan® • Always refer to other herbicide labels for weeds controlled, rates of applications, directions for use, limitations, and restrictions.
TYFON (New Hampshire only)	Preplant Preemergence	1.7-2.7 pts.	Ground: 10 gals.	—	• Do not make more than 3 applications per year. • Seeding should be done with a minimum of soil disturbance. • Weeds and grasses emerging after treatment will not be controlled. • Crop plants emerged at time of application will be injured.
VEGETABLES (Seeded or Transplanted) Beans (Lima, Snap) Broccoli Cabbage Cantaloupe Carrots Cauliflower Chayote fruit Chinese cabbage Chinese waxgourd Citron melon Collards Cucumber Eggplant Gherkin Gourd, Edible Groundcherry Lettuce Momordica spp. Musk melons Peas Pepino Peppers Pumpkin Squash Sweet Corn Tomatillo Turnips Tomatoes Watermelons	Preplant Preemergence	1.3-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Seedbeds or plantbeds should be formed as far ahead of treatment as possible to permit maximum weed emergence. • Banded or broadcast treatment applications can be made before, during or after planting but prior to the crop emergence. • For heavier weed infestations, use the higher rate. • Seeding or transplanting should be done with a minimum amount of soil disturbance. • Crop plants emerged at time of application will be killed. • PARAQUAT CONCENTRATE can be used in fallow bed/stale seedbed for weed control alone or tank mixed with Goal®. Always refer to the Goal label for weeds controlled, rates of applications, directions for use, limitations, and restrictions. • Do not harvest tomatoes within 30 days after application.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions

VEGETABLES Eggplant Peppers Tomatoes	Directed Spray	1.3 pts.	Ground: 10 gals.	—	• Do not make more than 3 applications per year. • For control or suppression of emerged weeds between rows after crop establishment. • Use precision directed spray application equipment adjusted to prevent spray contact with crop plants. Do not exceed 30 psi nozzle pressure. Do not spray under conditions which may cause excessive drift. • Apply when weeds are succulent and weed growth is less than 6". • Do not apply more than 3 applications per season. • Do not allow animals to graze in treated areas. • Do not harvest tomatoes within 30 days after application.

VEGETABLES Tomatoes	After Final Harvest	1.6-2.5 pts.	Ground: 40-120 gals.	—	• Do not make more than 2 applications per year. • Apply in 40-120 gallons of water per acre (0.62-0.93 lb. a.i./A). • Add NIS containing 75% or more surface active agent at 0.125 v/v (1 pt./100 gals. spray solution). • To ensure maximum herbicide burndown, tomato vines should be thoroughly covered. • PARAQUAT CONCENTRATE may be deactivated and less efficacious when dirty or muddy water is used. • To aid in the removal of sweet potato whitefly, burn tomato vines with propane burners as soon as possible after the vines have dried down sufficiently. • DO NOT apply more than a total of 3 lbs. active ingredient (paraquat) per acre per season. • To minimize drift, do not use nozzles or nozzle configurations which produce fine spray droplets (mist).
VEGETABLES (California, Washington, Oregon, Idaho only) Lettuce Melon Sugar Beets Tomatoes	Broadcast	0.4-0.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 2 applications per year. • For control of volunteer barley in preformed seedbeds. • Do not harvest tomatoes within 30 days after application.
VEGETABLES Rhubarb	Dormant	1.7-2.7 pts.	Ground: 10 gals.	—	• Do not exceed 2 applications per year. • Apply during dormant season before buds in crown begin to grow.

RESIN SOAKING

Pines including Loblolly, Shortleaf, Longleaf, Slash, Virginia, Pond, Pitch, and Spruce Pines.

Tree Selection -Trees should be selected from stands on sites not subject to stress from periods of extreme drought stress because the desiccating effect of PARAQUAT CONCENTRATE is accentuated during drought, causing a reduction in the amount of oleoresin deposited in the xylem. Vigorous, non-stagnated natural or planted stands should be selected. Plan PARAQUAT CONCENTRATE treatments in stagnated or commercial timber stands, not sooner than three years after a commercial thinning.

Application Directions: To bring the treatment into contact with sapwood (or xylem), apply water-diluted PARAQUAT CONCENTRATE to an appropriate wound in the tree trunk.

Bark Streaks or Cuts: Use a standard or rotary bark hack or a chainsaw shipping tool (used in naval stores work) to remove a single 1-inch wide streak of bark about 1-2 ft. from ground level. Do not exceed 1/3 of the circumference of the tree. Serious girdling of the trunk and premature

death of the tree can result if multiple streaks or cuts are made. Apply a coarse spray (about 1.7-5.0 ml) PARAQUAT CONCENTRATE solution (1-5% cation, wt./wt. basis) to runoff to the exposed xylem, using a low-pressure sprayer. The amount of spray required per cut depends on tree circumference and the length of cut or streak. For example, for a 9-inch diameter tree, using 3 ml of 2 or 4% PARAQUAT CONCENTRATE solution will cover the 1-inch wide streak and will result in application of 60 or 120 mg per streak.

Time of Treatment: Less severe pine beetle infestation and longer tree life usually result during cool season treatments under non-drought seasons. However, resin soaking can occur from treatments made any time of the year.

Interval between Treatment and Tree Harvest: There should be at least a 6-month interval between application of PARAQUAT CONCENTRATE and tree harvest. However it is preferable the interval is from 12-24 months, even though intervals of over 6 months may not be possible under conditions of drought or serious pine beetle attacks possibly making early harvest necessary.

With this treatment, there is a potential for promoting beetle attack or causing premature death of the tree. At high dosage rates, desiccation of the xylem tissue, rather than the desired resin soaking, may occur.

Note: This type of treatment may reduce stem growth during between treatment and tree harvest.

Dilution Table for PARAQUAT CONCENTRATE (3.0 lbs. cation per gallon)	
Concentration of Cation Desired (wt./wt. basis)	Add the Following No. Gal. of Water to 2/3 Gallon of PARAQUAT CONCENTRATE
0.2%	118.8
0.5%	46.8
1.0%	22.9
2.0%	10.9
3.0%	6.9
4.0%	4.9
5.0%	3.7

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
CONSERVATION RESERVE, FEDERAL SET-ASIDE, CONSERVATION COMPLIANCE PROGRAMS (For use in compliance with the Federal Conservation	Broadcast	1.7-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • PARAQUAT CONCENTRATE may be tank mixed with other herbicides registered for this use for improved emerged weed control or extended weed control. Always refer to tank mix herbicide labels for weeds controlled, rates of applications, directions for use, limitations, and restrictions.

Reserve Program or Federal set-aside programs)					
NONCROP USES	Broadcast or Spot Treatment	1.7- 2.7 pts.	Ground: t0 gals.	—	• Repeat applications as necessary but do not make more than t0 applications per year. • To be used in noncrop areas including public airports, electric transformer stations, pipeline pumping stations, around commercial buildings, storage yards and other installations, and fence lines . • Avoid spray contact with the foliage of ornamentals or desired plants.
PASTURE RESEEDING For suppression of existing sod and undesirable emerged broadleaf weeds and grasses prior to or at time of planting grasses or forage legumes	Broadcast	0.7-1.3 pts.	Ground: t0 gals. Air: 5 gals.	See specific geographic recommenda-tion	• Do not make more than 3 applications per year. **West of Cascade and Sierra Nevada Mountains** • Apply in October through December after first tall rains and after weeds have emerged and sod has started new growth. • Apply on moderately to heavily grazed areas for best seeding results, • Do not use in heavy sod and weed growth areas. **East of Rocky Mountains** • Use the t.3 pts rate on vigorous or coarse sod species such as bromegrass. • Apply prior to, or at time of seeding grasses or forage legumes. • Apply only to grazed or mowed pastures not more than 3" in height at time of treatment. **Bermudagrass or Bahiagrass Sods** • Apply in late summer or early fall to sod not exceeding 3" in height. • For control of emerged little barley, apply in February or March before the mid-boof stage of little barley. **Bermudagrass and Coastal Bermudagrass Pastures** • Apply when bermudagrass is dormant. • For control of little barley, apply before the mid-boot stage. • Do not mow for hay until 40 days after treatment.
For control of endophyte-tungus-infected tescue forage legume/grass mixture and other grass pastures	Broadcast (Split Application)	0.7-t.3 pts. followed by 0.7-1.3 pts.	Ground: t0 gals.	—	• Do not make more than 2 applications per year. • Use split applications of 10-2t days apart if necessary. • Do not exceed 2.6 pts /A total in preparation for reseeding. • For spring plantings, the initial application of 0.7-1.3 pts. may be made the previous fall. • Apply when fescue is actively growing and no more than 4" high.

					• To reduce the infestation of endophyte-infested grass, do not allow fescue to go to seed starting with the preceding year's crop.

Crop	Use Pattern	PARAQUAT CONCENTRATE Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
*For prickly pear desiccation in pastures *Not for use in California	Spot Sprays	0.8 fl. oz. per gallon of water	Spray to wet weed foliage	—	• Do not make more than 10 applications per year. • Hand-held equipment such as knapsacks backpack sprayers, pump-up pressure sprayers, hand-guns, and hand-wands, can be used to direct the spray onto weed foliage so that the spray thoroughly wets foliage. • Mix 0.8 fl. oz. of PARAQUAT CONCENTRATE and 1/3 fl. oz. of a nonionic surfactant per gallon of water. • Completely and uniformly cover all green prickly pear foliage with spray. • Apply in May through September for best desiccation results. • Do not use more than 1.6 pts. of PARAQUAT CONCENTRATE per acre per year. • Apply only to pastures with no more than 3" of height at time of treatment. • Tank mix with Grazon® P+D Specialty® herbicide at a rate of 1-2 fl. oz. per gallon of water for improved desiccation and perennial control of prickly pear. • Always refer to the Grazon P+D Specialty herbicide label for weeds controlled, rates of applications, directions for use, limitations, and restrictions.
*For Juniper Species leaf moisture reduction or desiccation prior to Prescribed burning of pastures *Not for use in California	Broadcast	1.3 pts.	Air: 5 gals.	—	• Do not make more than 10 applications per year. • Use only in conjunction with prescribed burning as recommended and monitored by local SCS or University and Extension Range Specialists. • Apply during hot, dry weather conditions (generally July and August). • Use 2% v/v nonionic surfactant in a minimum of 5 gal spray solution. • Monitor juniper leaf moisture content. Maximum leaf moisture reduction generally occurs 3-4 weeks after PARAQUAT CONCENTRATE application. • Significant soil moisture and/or wet weather conditions prior to or after application will decrease the potential for juniper crown burns. • Reduction in leaf moisture can be adversely affected by cool or humid weather conditions.. • Do not graze livestock after application or prior to burning.
*Native	Broadcast	1.0-1.25 pts.	Ground:	—	• Do not make more than 2 applications

Pastures *Not for use in California			10 gals. Air: 5 gals.		per year. • Apply PARAQUAT CONCENTRATE for control of downy and Japanese brome. • Apply in spring after 90% node formation of brome species, but before full bloom. • Emerged native perennial grasses will be burned by application, but application after 90% node formation will allow adequate time for native grasses to recover and attain maximum growth in the use season. • Do not apply more than 1.25 pts. PARAQUAT CONCENTRATE per year. • Apply only to pastures with no more than 3" of height at time of treatment.

Conversion Table
PARAQUAT CONCENTRATE to Be Applied

Ounces	Pints	Lb. a.i.	Acres/Gallon
2.5	0.16	0.06	51.3
4.8	0.30	0.11	26.7
5.28	0.33	0.12	24.2
5.52	0.35	0.13	23.2
10.00	0.63	0.23	12.8
11.00	0.69	0.26	11.6
11.20	0.70	0.26	11.4
12.00	0.75	0.28	10.7
16.00	1.00	0.38	8.0
20.00	1.25	0.47	6.4
20.80	1.30	0.49	6.2
24.00	1.50	0.56	5.3
28.00	1.75	0.66	4.6
32.00	2.00	0.75	4.0
40.00	2.50	0.94	3.2
43.20	2.70	1.00	3.0

STORAGE AND DISPOSAL

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

Pesticide Storage: Store in original container and place in a locked storage area. Do not mix or store in containers, spray tanks, nurse tanks, or such systems made of aluminum or having aluminum fittings. Store at temperatures above 32°F. For Emergencies involving a Spill, Leak, Fire, Exposure, or Accident, contact: CHEMTREC at (800) 424-9300.

Pesticide Disposal: Pesticide wastes are acutely hazardous. Improper disposal of excess, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container Disposal:
Do not reuse container as container is not safe for food, feed or drinking water!

Plastic containers: Triple rinse (or equivalent). 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. Mini-bulk Containers: Reseal container and offer for reconditioning, or triple rinse (or equivalent) and offer for recycling or reconditioning, or clean in accordance with manufacturer's instructions. Mini-bulk Refillable Containers: Before refilling, inspect thoroughly for damage, such as cracks, punctures, bulges, dents, abrasions and damaged or worn threads on closure devices. After filling and before transporting, check for leaks. Do not refill or transport damaged or leaking container.

WARRANTY STATEMENT IMPORTANT NOTICE - Seller warrants that this product conforms to the chemical description and is reasonably fit for purposes stated on the label when used in accordance with the directions and instructions under normal conditions of use; **but neither this warranty nor any other warranty of merchantability or fitness for a particular purpose, express or implied, extends to the use contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to seller, and buyer assumes the risk of any such use.**

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SOURCE DYNAMICS

July 31, 2009

Document Processing Desk (APPL)
Office of Pesticide Programs (P7504C)
Environmental Protection Agency
Room S-4900, One Potomac Yard (South Building)
2777 S. Crystal Drive
Arlington, VA 22202

Attn: James Tompkins (PM 25), Herbicide Branch, Registration Division (7505P)

Dear Mr. Tompkins:

Subject: Paraquat Concentrate: EPA Reg. No. 82542-3: Amended Label

Thank you for your letter of July 27, 2009. The statement concerning methanol has been moved from under the ingredients statement to the Note to Physician subsection of the First Aid Statements. It is otherwise identical to the October 27, 2007 version of the label.

Please find enclosed one copy of the amended label and Form 8570-1.

Sincerely,

Rufus Bastian, President
Source Dynamics LLC
rbastian@solerasd.com

10039 E. Troon North Drive
Scottsdale, AZ 85262

Tel. 480.502.9289

Fax 480.502.9268

Print Form

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

EPA

United States
Environmental Protection Agency
Washington, DC 20460

[ ] Registration
[X] Amendment
[ ] Other

OPP Identifier Number

Application for Pesticide - Section I

1. Company/Product Number 82542-3	2. EPA Product Manager J. Tompkins	3. Proposed Classification [ ] None [X] Restricte
4. Company/Product (Name) Paraquat Concentrate	PM# 25	
5. Name and Address of Applicant *(Include ZIP Code)* Source Dynamics LLC 10039 E. Troon North Drive Scottsdale, AZ 85262 [ ] *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.
[X] Final printed labels in repsonse to Agency lettor dated 7/27/2009
[ ] "Me Too" Application.
[ ] Other - Explain below.

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

Submission of amended label. The statement regarding methanol has been moved from the ingredients statement to the Note to Physician subsection of the First Aid Statements.

Section - III

1. Material This Product Will Be Packaged In:

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

3. Location of Net Contents Information: [ ] Label [ ] Container

4. Size(s) Retail Container

5. Location of Label Directions: [ ] On Label [ ] On Labeling accompaning 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)
Rufus Bastian	President	480-502-9389

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 Rufus Bastian	3. Title President
4. Typed Name Rufus Bastian	5. Date July 31, 2009

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

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

DUPLICATE

Date: August 13, 2009
OPP Decision Number: D416972
EPA Registration Number: 82542-3
Product Name: Paraquat Concentrate
EPA Receipt Date: June 25, 2009
EPA Company Number: 82542
Company Name: Source Dynamics, LLC

Rufus Bastian
Source Dynamics LLC
10039 E. Troon North Drive
Scottsdale, AZ 85262

Subject: Confirmation of Request to Withdraw an Application

Dear Mr. Bastian

This is to confirm that the Agency has received and processed your request of August 13, 2009 to withdraw the above referenced application. Even when an application is withdrawn, Agency must retain at least 25% of the fee pursuant to FIFRA Section 33(b)(2)(G). When an application is withdrawn within 60 days of the beginning of the PRIA review period, as is the case here, the Agency must refund 75% of the registration service fee. Accordingly, the Agency will refund the difference between what was paid and what the Agency must retain. In this case, the Agency will refund 75% of the registration service fee as soon as practical. Any future submission related to this action must be submitted as a new application that requires either the appropriate fee or payment of 25% or 50% of the fee with a request to waive the remaining 75% or 50%.

If you have questions concerning this letter, please contact the Pesticide Registration Fee Ombudsperson at (703) 308-9362

Sincerely,

Lois Rossi

Lois Rossi, Director
Registration Division

Paraquat: "Application Dated June 25, 2009: 82542-3"
Rufus Bastian
to:
Hope Johnson
08/13/2009 11:48 AM
Show Details

WITHDRAWN

History: This message has been replied to.
Dear Ms. Johnson,

I'm not sure you receive this message yesterday or not. Nevertheless I am resending it.

Thank you for your e-mail of August 10. This e-mail will confirm the telephone call of August 11 stating that we wish to retain the registration of our current product, and we will reapply for registration of the second product as a new product rather than as an alternate product.

I would appreciate your advice on the mechanics of how to accomplish this. Most of the supporting material is already on file with the Agency. Therefore we propose to submit a new replacement EPA Form 8570-1 which proposes a registration rather than an amendment, and a new label with a different product name. Does this approach appear acceptable to you?

We realize that this action is in a different PRIA category and that an additional PRIA fee is required. We will contact Linda Arrington regarding whether any of the previous PRIA fee can be applied toward this action.

Once again, thanks very much for your help on this project.

Rufus Bastian
Source Dynamics, LLC
480-502-9289

EPA Registration Number 82542-3; Application dated June 25, 2009
Hope Johnson to: Rufus Bastian, sbernard 07/30/2009 09:05 AM
Cc: Jim Tompkins

Mr. Bastian,

The Agency has received the application for an alternate CSF with data for EPA Registration Number 82542-3.
As discussed with Stanley Bernard in the meeting last week, a product cannot be registered under two separate labels and respective formulations. There may be only one current label of record for a registered product. Therefore, your current application dated June 25, 2009 must be revised to a replacement of the current basic CSF and label (including a revised CSF and application letter), or withdrawn and submitted as a new separate product application if still desired.

If you have any questions please contact me at the number below. Respond back with your intention for this application as soon as possible.

Thank you,

Hope A. Johnson
U.S. Environmental Protection Agency
Office of Pesticide Programs
Registration Division
Herbicide Branch
Phone: 703-305-5410
Mail Code 7505P

#825.2-3

Need mini-jacket

Memorandum

Date: 07/12/09

To: RM 25, Regulatory Manager

From: Information Services Branch, ITRMD

Reject make LCA

Your receipt of this data submission is not an indication that MRIDs for the enclosed studies have been posted to OPPIN.

We expect that it will be approximately 5 days from the above date before the study-level data is available in OPPIN.

If you have any questions about this process, please contact Teresa Downs (305-5363).

This is a:
- ☒ fully accepted submission
- ☐ partially accepted submission
- ☐ rejected submission

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

July 17, 2009

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

SOURCE DYNAMICS, LLC
10039 E. TROON NORTH DRIVE
SCOTTSDALE, AZ 85262-

Report of Analysis for Compliance with PR Notice 86-5

Thank you for your submittal of 14-JUL-09. Our staff has completed a preliminary analysis of the material. The results are provided as follows:

Your submittal was found to be in full compliance with the standards for submission of data contained in PR Notice 86-5. A copy of your bibliography is enclosed, annotated with Master Record lD's (MRIDs) assigned to each document submitted. Please use these numbers in all future references to these documents. Thank you for your cooperation. If you have any questions concerning this data submission, please raise them with the cognizant Product Manager, to whom the data have been released.

Receipt for Section 3

S: 853671

Resubmission: Yes No

Regulatory Type: Product Registration - Section 3

Fee For Service: Yes No

Application Type: Amendment

Billable: Yes No

Company: 62542 SOURCE DYNAMICS, LLC

Print Letter

Enter More Information

Tracking

Risk Manager: Registration Division, Risk Management Team 25

Product #: 62542-3 Product Name: PARAQUAT CONCENTRATE

Override#:

Me Too Section3: 62557-1 Me Too Product Name: PARAQUAT SL HERBICIDE

Application Date: 25-Jun-2009

OPP Rec'vd Date: 14-Jul-2009

Front End Date: 14-Jul-2009

Risk Manager Send Date:

FFS Due Date:

Negotiated Due Date:

OPP Target Date:

Receipt Content

Study

CSF

View/Edit

Fast Track:

New Ingredient:

Receipt Description:

Application for an alternate CSF

New Ingredient Request Date:

New Ingredient Received Date:

Form A: Signature Date:

Form B: Signature Date:

June 25, 2009

Document Processing Desk **(REGFEE)**
Office of Pesticide Programs (7504P)
U.S. Environmental Protection Agency
Rm S-4900, One Potomac Yard
2777 South Crystal Drive
Arlington, VA 22202

ATTN: MR. JIM TOMPKINS, PM25/HERBICIDE BRANCH

Re: Application for an Alternate Confidential Statement of Formula (CSF)
PARAQUAT CONCENTRATE (EPA File Symbol 82542-3)

Dear Mr. Tompkins,

Herewith:

1. Completed EPA Form 8570-1

2. Two copies of the proposed alternate CSF

3. Certification with respect to citation of data

4. Data matrix

5. Five copies of the proposed label

6. Three copies of the following report:

47803201 *Product Identity, Composition, Analysis, Physical and Chemical Characteristics of Paraquat Concentrate*

7. ~~Check~~ Receipt to cover the associated PRIA fee for this application. prepaid at pay.gov (attached)

We believe that Action R301 which carries the fee of $1,638.00 applies to this application.

If you have questions/clarification regarding this submission, I can be reached at (480) 502-9289.

Thank you.

Sincerely,

June 25, 2009

Document Processing Desk **(REGFEE)**
Office of Pesticide Programs (7504P)
U.S. Environmental Protection Agency
Rm S-4900, One Potomac Yard
2777 South Crystal Drive
Arlington, VA 22202

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Thank you.

Sincerely,

PRIA 2 – 21 Day Content Screen Review Worksheet

(EPA/OPP Use Only)

3/23/09

21 Day Screen Start Date: 7-14-09

Experts In-Processing Signature: MF HARRINGTON Date 7-16-09 Fee Paid: Yes ✓

Division management contacted on issues No_____ Yes _____ Date _____

EPA Reg. Number: 82542-3	EPA Receipt Date: 7-14-09

	Items for Review	Yes	No	N/A*
1	**Application Form** (EPA Form 8570-1)(link to form) signed & complete including package type	X		
2	**Confidential Statement of Formula** all boxes completed, form signed, and dated (EPA Form 8570-4) (Link to form)	X		
	a) All inerts (link to http://www.epa.gov/opprd001/inerts/), including fragrances, approved for the proposed uses (see Footnote A) — yes: X; no: ~~X~~ (J. Bak 8/6/09)			
3	**Certification with Respect to Citation of Data** (EPA Form 8570-34) (Link to form) completed and signed (N/A if 100% repack)		X	
	Certificate and data matrix consistent		X	
	If applicant is relying on data that are compensable, is the offer to pay statement included. (see Footnote B) — yes: ; no:			
	If applicable, is there a letter of Authorization for exclusive use only.			
4	**Formulator's Exemption Statement** (EPA Form 8570-27) (Link to form) completed and signed (N/A if source is unregistered or applicant owns the technical)			X
5	**Data Matrix** (EPA Form 8570-35) (Link to form) both internal and external copies (PR 98-5) (Link to PR 98-5) completed and signed (N/A if 100% repack)		X	
	a) Selective Method (Fee category experts use) — yes: ; no:			
	b) Cite-All (Fee category experts use) — yes: ; no:			
	c) Applicant owns all data (Fee category experts use) — yes: ; no:			
6	**5 Copies of Label** (link to **http://www.epa.gov/oppfead1/labeling/lrm/**) **(Electronic labels on CD are encouraged and guidance is available)**(link to http://www.epa.gov/pesticides/regulating/registering/submissions/index.htm#labels)	X		

7	**Is the data package consistent with PR Notice 86-5** (link to PRN 86-5)	X		
8	**Notice of Filing (link to http://www.epa.gov/pesticides/regulating/tolerance_petitions.htm) included with petitions (link to http://www.epa.gov/pesticides/regulating/tolerances.htm)**			X
9	**If applicable for conventional applications, reduced risk rationale (link to http://www.epa.gov/opprd001/workplan/reducedrisk.html)**			X
10	**Required Data (link to http://www.epa.gov/pesticides/regulating/data_requirements.htm) and/or data waivers. See Footnote C.**			
	a) List study (or studies) not included with application			

Comments:

- ☐ Passed 86-5 Review
- ☐ Registrant did not send corrections regarding inert ingredient. See Attached correspondence. KC 7/30

MRID 478032

* N/A – Not Applicable

Footnotes

A. During the 21 day initial content review, all CSFs will be reviewed to determine whether all inerts listed, including fragrances, are approved for the proposed uses. If an unapproved inert is identified, the applicant must either 1) resolve the inert issue by, for example, removing the inert, substituting it with an approved inert, submitting documentation that EPA approved the inert for the proposed pesticidal uses, correcting mistakes on the CSF, etc. or 2) provide the data to support OPP approval of the inert or 3) withdraw the application. Removing or substituting an inert ingredient will require a new CSF and may require submission of data. All information, forms, data and documentation resolving the inert issue must have been received by the Agency or the application withdrawn within the 21 day period, otherwise, the Agency will reject the application as described below.

To successfully complete this aspect of the 21 day initial content screen, applicants are **strongly encouraged** to verify that all inert ingredients have been approved for the application's uses **even if a product is currently registered** by consulting the inert Web

site [link to http://www.epa.gov/opprd001/inerts/lists.html] and if the inert is not approved, to **obtain the necessary inert approval prior to submitting** an **application to register a pesticide product containing that inert ingredient.** Some inert ingredients are no longer approved for food uses or certain types of uses. The name and/or CAS number on a CSF must match the name and CAS number on this web site. Simple typographical errors in the name or CAS number have resulted in processing delays.

If an inert is not listed on the inert ingredient web site and the applicant believes that the inert has been approved, the applicant should contact the Inert Ingredient Assessment Branch (IIAB) at inertsbranch@epa.gov and resolve the issue. Copies of the correspondence with IIAB resolving the issue should accompany the application. All new inerts except PIP inerts are reviewed by IIAB. The IIAB should also be contacted for any questions on what supporting data needs to be submitted for and the Agency's inert review process. Questions on PIP inerts should be directed to the Chief of Microbial Pesticides Branch [Link to http://www.epa.gov/oppbppd1/biopesticides/contacts_bppd.htm].

When a brand, trade, or proprietary name of an inert ingredient is listed on a CSF, additional information such as an alternate name of the inert, CAS number or other information [link to http://www.epa.gov/opprd001/inerts/tips.pdf] must also be included to enable the Agency to determine if it has been approved. Each component of an inert mixture (including a fragrance) must be identified. In some cases, the supplier of the mixture or fragrance may need to provide this information to the Agency. Prior to the Agency's receipt of an application, applicants must arrange with a proprietary mixture or fragrance supplier to provide the component information to the Agency or promptly upon EPA's request. If the inert ingredients in a proprietary blend (including fragrances) cannot or are not identified or provided within the 21-day content review period, the Agency will reject the application.

During the 21 day content review, applicants should submit information to the individual identified by the Agency when the applicant is informed of an unapproved inert.

Unapproved Inerts Identified on CSFs

All applications except conventional new products and PIPs

Once an unapproved inert is identified on a CSF, the Agency will contact the applicant with the following options:

1. Correct the application by, for instance, correcting the inert's identity or CAS number, providing documentation that the inert has been approved, or removing the unapproved inert from the CSF or replacing it with one that is approved for the application's uses; or

2. Submit the information and data needed for the Agency to approve the unapproved inert. If this option is selected and implemented, the Agency may request an extension in the PRIA decision review timeframe to accommodate the inert review/approval process;

3. Withdraw the application (the Agency retains 25% of the full fee for the fee category estimated); or

If none of these options is selected and implemented by the applicant within the 21 day content review period, the Agency will reject the application and retain 25% of the full fee of the category identified.

Conventional New Product Applications

When the Registration Division identifies an unapproved inert on a CSF with an application for a new product that the applicant has not identified as requiring an inert approval (R311, R312 or R313), it will contact the applicant with the following options:

1. Correct the application by, for instance, correcting the inert's identity or CAS number, providing documentation that the inert has been approved, or removing the unapproved inert from the CSF or replacing it with one that is approved for the application's uses; or

2. Submit the information and data needed for the Agency to approve the unapproved inert, including any required petition to establish or amend a tolerance or exemption from a tolerance. (This option may change the PRIA category for the application, which could require a longer decision review time and a larger fee. If additional fees are due, they must be received by the Agency within the 21 day content review period.)

3. Withdraw the application (the Agency retains 25% of the full fee for the fee category estimated); or

If none of the above options is selected and implemented during the 21-day content-review period, the Agency will reject the application and retain 25% of the appropriate fee for the new product-inert approval category.

PIP Applications

When the Biopesticide and Pollution Prevention Division identifies an unapproved inert on a PIP CSF and a request to approve the inert does not accompany the application, it will contact the applicant with the following options:

1. Correct the application by, for instance, correcting the spelling or name of the inert to that in 40 CFR 174, or providing documentation that the inert has been approved; or

2. Submit the information and data needed for the Agency to approve the unapproved inert. If an inert ingredient tolerance exemption petition is required, the petition must be received by the Agency and the B903 fee paid within the 21 day period. If this option is selected and implemented, the Agency will discuss harmonizing the timeframe for both actions.

3. Withdraw the application (the Agency retains 25% of the full fee for the fee category estimated); or

If none of the above options is selected and implemented during the 21 day content review period, the Agency will reject the application and retain 25% of the fee.

B. A policy on documentation of offers to pay is still being developed, however, for a me-too or fast track (similar/identical) new product, R300 or A530, an application without the necessary authorizations of offers to pay will be placed into either R301 or A531. The Agency recommends that authorizations of offers to pay be submitted with other PRIA applications to avoid delays in the Agency's decision.

C. Biopesticide applicants are advised to contact the Agency and discuss study waivers prior to submitting their application to the Agency. Documentation of such discussions should be submitted with the study waiver.

Fw: Amended Registration of Paraquat Concentrate
Rufus Bastian to: Kirk Clausen 07/28/2009 12:20 PM

Dear Mr. Clausen,

In response to you telephone call and e-mail we respectfully submit the following:

We are somewhat surprised by your request.

Use of the [redacted] in paraquat formulations is common here in the United States and around the world, including US EPA registered paraquat formulations.

Aside from the fact this is not a new development for paraquat, the concentration of the [redacted], currently an EPA list 3 inert ingredient, is only [redacted] or [redacted].

Based upon the fact that this material is currently used in registered paraquat formulations on the market and the extremely low concentration in formulation; we respectfully request you accept the formula as it is.

We hope you will take our request into consideration. Please let me know if you need further details or information.

Sincerely,

Rufus Bastian
Source Dynamics, LLC
480-502-9289

Stanley Bernard
901-337-0999

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

July 15, 2009

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

PLEASE RETURN A COPY OF THIS LETTER WITH PAYMENT
OR PAY ON-LINE at www.Pay.Gov (See Below for Details)

OPP Decision Number: D-416972
EPA File Symbol or Registration Number: 82542-3
Product Name: PARAQUAT CONCENTRATE
EPA Receipt Date: 14-Jul-2009
EPA Company Number: 82542
Company Name: SOURCE DYNAMICS, LLC

RUFUS BASTIAN
SOURCE DYNAMICS, LLC
10039 E. TROON NORTH DRIVE
SCOTTSDALE, AZ 85262-

SUBJECT: Receipt of Amendment Subject to Registration Service Fee

Dear Registrant:

The Office of Pesticide Programs has received your application for Amendment. If you submitted data with this application, the results of the PRN-86-5 screen will be communicated separately. During the administrative screen, the Office of Pesticide Programs has determined that this Action is subject to a Pesticide Registration Service Fee as defined in the Pesticide Registration Improvement Act.

The Action has been identified as Action Code: R340

NON-FAST-TRACK (INCLUDES CHANGES TO PRECAUTIONARY LABEL STATEMENTS;SOURCE CHANGES TO AN UNREGISTERED SOURCE);

Please remit payment in the amount of: $1,806 ($3,444 fee minus $1,638 previously paid) to:

By USPS:
USEPA Washington Finance Center
Pesticide Registration Service Fee
PO Box 979074
St. Louis, MO 63197

By Courier:
U.S. Bank
Government Lockbox 979074
1005 Convention Plaza
SL-MO-C2-GL
St. Louis, MO 63197
Tephone: (314) 418-4990

All payments must be in United States currency by check, bank draft, or money order drawn to the order of the Environmental Protection Agency. To ensure proper credit, please write the OPP DECISION NUMBER on your check, and enclose a copy of this letter with your payment.

Effective November 1, 2006, fees may be paid on-line via credit card or electronic fund transfer. To submit a payment on-line, visit www.pay.gov. From the pay.gov home page, select "search by form name." From the next page, select "P," then click on "Pesticide Registration Improvement Act. Fee Payment" and complete the form, making certain to use the decision number and registration number on the invoice you receive from the Pesticide Program in the space provided.

You may be eligible for a partial waiver of the registration service fee if, for example, you qualify as a small business or are applying for a minor use, or if your application is soley associated with an IR-4 tolerance petition. Please be advised that if you intend to request a waiver, you must do so in writing within 15 days of receipt of this invoice instead of remitting the amount indicated above. OPP will not consider waiver requests after the registration service fee has been paid. Information regarding eligibility and how th request and document a fee waiver is available on the OPP Fee for Service web site at www.epa.gov/pesticides/fees.

Please send Registration Service Fee Waiver requests to:

By USPS:
Document Processing Desk (WAIVER)
Office of Pesticide Programs (7504P)
U.S. Environmental Protection Agency
1200 Pennsylvania Ave NW
Washington, DC 20460

By Courier:
Document Processing Desk (WAIVER)
Office of Pesticide Programs (7504P)
U.S. Environmental Protection Agency
Room S-4900 Potomac Yard
2777 S. Crystal Dr.
Arlington, VA

A PRIA decision time review period will not start until a fee waiver is granted and/or the

Agency receives certification that the outstanding fee has been paid. If the Agency does not receive certification of payment for this action or a fee waiver request within the next 30 days, the Agency will presume that you no longer want to pursue this action. The Agency will then initiate a process that may result in administrative withdrawal of this action.

If you have any questions, please contact the Pesticide Registration Service Fee Ombudsman, at (703) 305-6249.

Sincerely,

Teresa Downs

Front End Processing Staff
Information Technology & Resources Management Division

Fee for Service

{8536710~

This package includes the following

- ○ New Registration
- ◉ Amendment

☑ Studies? ☐ Fee Waiver?

☐ volpay % Reduction: ___

for Division

- ○ AD
- ○ BPPD
- ◉ RD

Risk Mgr. 25

Receipt No.	S- 853671
EPA File Symbol/Reg. No.	82542-3
Pin-Punch Date:	7/14/2009

☐ This item is NOT subject to FFS action.

Action Code:

Requested: R301

Granted: R340

Amount Due: $ 3444.00

Inerts approved. S. Rock 8/6/09

Parent/Child Decisions:

~~Inerts not approved. See status form~~ ~~S. Rock 7/16/09~~

☒ Inert Cleared for Intended Use ☒ Uncleared Inert in Product

Reviewer: [signature] Date: 7/15/09

Remarks:

THIS IS NOT A NEW PRODUCT

Receipt for Section 3

S: 853671

Resubmission: Yes No

Regulatory Type: Product Registration - Section 3

Fee For Service: Yes No

Application Type: Amendment

Billable: Yes No

Company: 62542 SOURCE DYNAMICS, LLC

Print Letter

Enter More Information

Tracking

Risk Manager: Registration Division, Risk Management Team 25

Product #: 62542-3 Product Name: PARAQUAT CONCENTRATE

Override#:

Me Too Section3: 62557-1 Me Too Product Name: PARAQUAT SL HERBICIDE

Application Date: 25-Jun-2009

OPP Rec'vd Date: 14-Jul-2009

Front End Date: 14-Jul-2009

Risk Manager Send Date:

FFS Due Date:

Negotiated Due Date:

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New Ingredient:

Receipt Description:

Application for an alternate CSF

New Ingredient Request Date:

New Ingredient Received Date:

Form A: Signature Date:

Form B: Signature Date:

Pay.Gov Payment Confirmation

om: **paygovadmin@mail.doc.twai.gov**
nt: Tue 7/07/09 1:22 PM
terrystojic@hotmail.com (terrystojic@hotmail.com)

HIS IS AN AUTOMATED MESSAGE. PLEASE DO NOT REPLY.

Your transaction has been successfully completed.

Payment Summary

Application Name: PRIA Service Fees
Pay.gov Tracking ID: 24VJJOlK
Agency Tracking ID: 74075201589

Account Holder Name: Terry K Stojic
Transaction Type: Sale
Billing Address: 7364 E Red Hawk Street
City: Mesa
State/Province: AZ
Zip/Postal Code: 85207
Country: USA
Card Type: Visa
Card Number: **********8851
Payment Amount: $1,638.00
Transaction Date: Jul 7, 2009 4:22:53 PM

Decision Number:
Registration Number:

261

Please read instructions on reverse before comp. ing 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 82542-3	2. EPA Product Manager Jim Tompkins	3. Proposed Classification [ ] None [✓] Restricted
4. Company/Product (Name) PARAQUAT CONCENTRATE	PM# 25/Herbicide Branch	
5. Name and Address of Applicant *(Include ZIP Code)* Source Dynamics, LLC 10039 E. Troon North Drive Scottsdale, AZ 85262 [ ] *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 repsonse to Agency letter dated _____
- [ ] "Ma Toa" Application.
- [ ] Other - Explain below.

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

Submission of an alternate confidential statement of formula. Details are in the cover letter accompanying this submission.

WITHDRAWN

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	1, 2.5, 5, 10, 15, 30, 55 Gal; Bulk; Tote	[✓] On the label

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)
Rufus Bastian	President	(480) 502-9289

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
Rufus Bastian	President
4. Typed Name	**5. Date**
Rufus Bastian	July 10, 2009

262

June 25, 2009

Document Processing Desk **(REGFEE)**
Office of Pesticide Programs (7504P)
U.S. Environmental Protection Agency
Rm S-4900, One Potomac Yard
2777 South Crystal Drive
Arlington, VA 22202

ATTN: MR. JIM TOMPKINS, PM25/HERBICIDE BRANCH

Re: Application for an Alternate Confidential Statement of Formula (CSF)
PARAQUAT CONCENTRATE (EPA File Symbol 82542-3)

Dear Mr. Tompkins,

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4. Data matrix

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7. ~~Check~~ Receipt to cover the associated PRIA fee for this application. prepaid at pay.gov (attached)

We believe that Action R301 which carries the fee of $1,638.00 applies to this application.

If you have questions/clarification regarding this submission, I can be reached at (480) 502-9289.

Thank you.

Sincerely,

RESTRICTED USE PESTICIDE

Due to acute toxicity. For retail sale to and use only by certified applicators or persons under their direct supervision and only for those uses covered by the certified applicator's certification.

Paraquat Concentrate

Defoliant and desiccant herbicide for the control of weeds and grasses and as a harvest aid.

NEVER PUT INTO FOOD, DRINK OR OTHER CONTAINERS. IF SWALLOWED, TAKE IMMEDIATE ACTION AS PRESCRIBED IN FIRST AID. SYMPTOMS ARE PROLONGED AND PAINFUL. DO NOT USE OR STORE IN OR AROUND THE HOME. DO NOT REMOVE CONTENTS EXCEPT FOR IMMEDIATE USE. THE ODOR OF THIS PRODUCT IS FROM THE STENCHING AGENT WHICH HAS BEEN ADDED, NOT FROM PARAQUAT.

ACTIVE INGREDIENT:

Paraquat dichloride (1,1'-dimethyl-4,4'-bipyridinium dichloride)	43.2%
OTHER INGREDIENTS:	56.8%
TOTAL:	100.0%

Contains 3.0 pounds paraquat cation per gallon as 4.14 pounds of dichloride salt per gallon. Contains emetic and stenching (odor) agent.

KEEP OUT OF REACH OF CHILDREN

DANGER **PELIGRO**

POISON **VENENO**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

EPA Reg. No. 82542-3

EPA Est. No. 82542-XX-XXX **Net Content:_____**

FIRST AID

Contains paraquat, a bipyridinium herbicide. Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

IF SWALLOWED:
- Call a poison control center or doctor IMMEDIATELY for treatment advice. SPEED IS ESSENTIAL. Immediate medical attention is required. If available, give an absorbent such as activated charcoal, bentonite or Fuller's Earth.
- Have person sip a glass of water if able to swallow.
- Do not induce vomiting unless told to by a poison control center or doctor.
- Do not give anything by mouth to an unconscious person.

IF INHALED:
- Move person to fresh air. The odor of this product is from the stenching agent, which has been added, not from the paraquat.
- If person is not breathing, call 911 or an ambulance.
- Call a poison control center or doctor for treatment advice.

(Continued)

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 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.

NOTE TO PHYSICIAN: Administer either activated charcoal (100 grams for adults or 2 g/kg body weight in children) or Fuller's Earth (15% solution; 1 liter for adults or 15mL/kg body weight in children). NOTE: The use of gastric lavage without administration of an absorbent has not shown any clinical benefit. Do not use supplemental oxygen. Eye splashes from concentrated material should be treated by an eye specialist after initial treatment. With the possibility of late onset corneal ulceration, it is advised that patients with paraquat eye injuries are reviewed by an eye specialist the day after first presentation. Use treatment that is appropriate for chemical burns. Intact skin is an effective barrier to paraquat; however, contact with irritated or cut skin or repeated contact with intact skin may result in poisoning.

For more information on this pesticide product (including health concerns, medical emergencies, or pesticide incidents), call the National Pesticide Information Center at 1-800-858-7378.

HOT LINE NUMBER: TRANSPORTATION EMERGENCY [CHEMTREC] 800-424-9300

PRECAUTIONARY STATEMENTS

Hazards To Humans And Domestic Animals

DANGER: May be fatal if swallowed. Fatal if inhaled. Corrosive. Causes irreversible eye damage. Wear protective eyewear. Do not breathe spray mist. Wear a dust/mist respirator. Do not get in eyes or on clothing. Harmful if absorbed through skin. Avoid contact with skin. Prolonged or frequently repeated contact may cause allergic reactions in some individuals.

IMPORTANT: Inhalation is an unlikely route of exposure due to low vapor pressure and large spray droplet size, but mucosal irritation or nose bleeds may occur. Prolonged contact with this concentrated product can irritate your skin.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers (other than mixers and loaders) must wear: Long-sleeved shirt and long pants; Chemical resistant gloves - Category A (e.g., barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinyl chloride (PVC) or viton); Shoes plus socks; Protective eyewear; A NIOSH approved particulate filtering respirator equipped with N, R, or P, class filter media. The respirator should have a NIOSH approval number prefix TC-84-A.

(Continued)

PRECAUTIONARY STATEMENTS (Continued)

It is recommended that you require that the respirator wearer must be fit tested and trained in the use, maintenance, and limitations of the respirator.

Mixers and loaders must wear:

Long-sleeved shirt and long pants; Chemical resistant gloves - Category A (e.g., barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinyl chloride (PVC) or viton); Shoes plus socks; Chemical resistant apron; Face shield; NIOSH approved particulate filtering respirator equipped with N, R, P, or class filter media. The respirator should have a NIOSH approval number prefix TC-84-A. It is recommended that you require the respirator wearer must be fit tested and trained in the use, maintenance, and limitations of the respirator.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

ENGINEERING CONTROLS

When handlers use closed systems, enclosed cabs, or aircraft 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.

USER SAFETY RECOMMENDATIONS

Users should: 1) Wash hands before eating, drinking, and chewing gum, using tobacco or using the toilet. 2) Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. 3) 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.

ENVIRONMENTAL HAZARDS

This product is toxic to wildlife. 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 cleaning equipment or disposing of equipment wash waters.

Paraquat dichloride is toxic to nontarget crops and plants if off-target movement occurs because it desiccates all green plant tissue. Extreme care must be taken to ensure that off-target drift is minimized to the greatest extent possible. Refer to the local state laws, regulations, guidelines, and spray drift information contained in the *Directions For Use* section of this label for proper application to avoid off-target movement. Do not apply under conditions involving possible drift to food, forage, or other plantings that might be damaged or the crops thereof rendered unfit for sale, use, or consumption. Do not apply when weather conditions favor drift from treated areas. To avoid drift, do not make aerial application during periods of thermal inversion.

PHYSICAL AND CHEMICAL HAZARDS

This product is mildly corrosive to aluminum and produces hydrogen gas which may form a highly combustible gas mixture. Do not mix or store in containers, spray tanks, nurse tanks, or such systems made of aluminum or having aluminum fittings. The product is compatible with high density polyethylene and rubber-lined steel containers.

DIRECTIONS FOR USE

RESTRICTED USE PESTICIDE.

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

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. Do not use around home gardens, schools, recreational parks, golf courses or playgrounds.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard (WPS) 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.

(Continued)

AGRICULTURAL USE REQUIREMENTS (Cont'd)

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 interval (REI). The requirements in this box only apply to uses of this product that are covered by the WPS.

For preplant or preemergence (broadcast or banded), chemical fallow, postemergence directed spray applications, early postemergence broadcast in peanuts and dormant season applications, and "between cutting" applications in alfalfa: Do not enter or allow worker entry into treated areas during the REI of 12 hours.

For harvest aid and desiccation application: Do not enter or allow worker entry into treated areas during the 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, shoes plus socks, protective eyewear, chemical resistant gloves - Category A (e.g., barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinyl chloride (PVC) or viton).

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 (WPS) 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 others to enter the treated area until sprays have dried.

AVOID working in spray mist.

Keep all unprotected persons out of operating areas or vicinity where there may be danger of drift.

Certain states may require more restrictive reentry intervals; consult your State Department of Agriculture for further information.

GENERAL INSTRUCTIONS AND INFORMATION

Do not apply this product through any type of irrigation system.

When this product is applied at less than 10 gallons per acre finished spray volume, a drift control or spray deposition additive should be used. Refer to the additive label for rates of applications, directions for use, limitations, and restrictions.

SPRAY DRIFT INFORMATION

AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR. The interaction of many equipment- and weather-related factors determines the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following DRIFT MANAGEMENT REQUIREMENTS must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

1. The distance of the outermost 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 must never be pointed downwards more than 45 degrees.

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*.

AERIAL DRIFT REDUCTION ADVISORY INFORMATION

Information on Droplet Size

The most effective way to reduce drift potential is to apply large droplets. The best management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environment conditions (see Wind, Temperature and Humidity, and Temperature Inversions).

Controlling Droplet Size

Volume - Use high flow rate nozzles to apply the highest spray volume. Nozzles with higher rated flows produce larger droplets.

Pressure - Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.

Number of Nozzles - Use the minimum number of nozzles that pro-

vide uniform coverage.

Nozzle Orientation - Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice.

Significant deflection from horizontal will reduce droplet size and increase drift potential.

Nozzle Type - Use a nozzle that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles.

Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

Boom Length

For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.

Application Height

Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making application at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

Swath Adjustment

When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase with increasing drift potential (higher wind, smaller drops, etc.).

Wind

Drift potential is lowest between wind speeds of 2 to 10 mph. However, many factors, including droplet size and equipment type, determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. NOTE: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

Temperature and Humidity

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

Temperature Inversions

Applications should not occur during a temperature inversion because drift potential is high.

Temperature inversions restrict vertical air mixing, which causes 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 are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They 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 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.

Sensitive Areas

The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, nontarget crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

GENERAL INFORMATION

This product is a liquid formulation containing 3 lbs. of active ingredient per gallon. It contains a nontoxic odor to help prevent accidental ingestions. It also contains an emetic (an agent which will induce vomiting if the product is swallowed).

APPLICATION

This product is a contact herbicide for control or suppression of a broad-spectrum of emerged weeds including most small annual broadleaf and grass weeds. It can also be used to suppress perennial weeds by destroying green foliage and as a desiccant/ defoliant at harvest.

Complete coverage of target weeds is necessary to get good control because this product is a contact-type herbicide. It is also necessary to obtain complete coverage for good crop desiccation and defoliations. Undesirable weed control and undesirable crop desiccation/defoliation will result if improper application techniques and/or applications to large, stressed, or mown weeds are made. Refer to the following details for specific application instructions.

Thorough coverage of all green foliage is required for efficacious weed control and crop defoliation and desiccation because this product requires actively growing green plant tissue to function. Drought-stressed weeds, weeds with little green foliage (i.e., mowed or cut weeds), or mature woody bark of trees and vines are unaffected by application of this product.

There is no residual soil activity to affect later-planted crops or later germinating weeds because clay and organic matter rapidly tie up this product.

ROTATIONAL CROPS

After the last application of this product, all rotational crops may be planted immediately.

RAINFASTNESS

Rain occurring 30 minutes or more after application will have no effect on the activity of this product because it is rapidly absorbed by the weed foliage.

USE OF A NONIONIC SURFACTANT OR CROP OIL CONCENTRATE CLEARED FOR THE CURRENT USE

The following should always be added and be used at the recommended rates or there will be a reduction in efficacy of this product.

Nonionic Surfactant:

Either add a nonionic surfactant containing 50 to 74% surface-action agent at 0.25% v/v (2 pts. per 100 gals.), or add nonionic surfactant containing 75% or more surface-active agent at 0.125% v/v (1 pt. per 100 gals.); of the finished spray volume for ground applications. Add a nonionic surfactant at 0.25% v/v (2 pts. per 100 gals.) of the finished spray volume for aerial applications.

Crop Oil Concentrate: For ground applications, add a nonphytotoxic crop oil concentrate that contains 5 to 20% approved emulsifier, with 1.0% v/v (1 gal. per 100 gals.) of the finished spray volume. Add 1 pt. of crop oil concentrate per acre for aerial applications. For cotton harvest aid, do not use crop oil concentrate when using this product.

NOZZLE SELECTION

The use of flat-fan nozzles is the most effective application of this product. The use of flood nozzles may result in a reduction of weed control due to inadequate coverage because they produce large uneven droplets.

Use only flat fan nozzles when spraying less than 20 gallons of spray carrier per acre using the following table.

Recommended Nozzle Type and Spray Pressures and Setup

	Nozzle Type	
	Flat Fan	Flood
Maximum Size	8	15
Spray Pressure (at nozzle)	30-50 psi	30-50 psi
Maximum Nozzle Spacing	30"	40"
Direction of Spray Pattern	Down	Down
Maximum Speed	10 mph	10 mph
Spray Overlap (at each edge)	30%	50%

Reduced control will result if nozzles, pressures, or setups differ from the above chart.

SPRAY CARRIER

This product may be inactivated by muddy water, or suspension-type fertilizers containing clay. Therefore, always use clean water (free of mud or clay), clear liquid nitrogen, or complete clear liquid fertilizers as the carrier when spraying this product. Never use suspension-type fertilizers containing clay as the spray carrier. Always use the higher rate of this product and surfactant if using a complete clear liquid fertilizer containing high phosphate levels as the spray carrier.

Note: It is important that when using liquid fertilizers such as 28% N as a spray carrier, that nonionic surfactant still be used with this product. The use of liquid fertilizer carriers are not substitutes for surfactants.

RATES OF THIS PRODUCT

With each use, follow rates listed in the following tables. When weeds are larger or are dense, use the higher label rates. For use as a harvest aid, use higher rate when crop vegetation is dense. Do not exceed 0.50 lbs. a.i. per acre in a minimum of 30 gallons of spray for broadcast applications with backpack sprayers.

SPRAY VOLUME

With each use, follow rates listed in the following tables. Spray volumes should be increased as necessary to obtain complete coverage of the target weed or plant without runoff from the foliage, because the volumes listed are minimum volumes only.

TARGET WEEDS SHOULD NOT EXCEED SIX INCHES IN HEIGHT

WHEN SPRAYING LESS THAN 20 GAL)S OF SPRAY CARRIER PER ACRE.

APPLICATION TIMING

Applications should be made to small emerged weeds. Larger weeds more than 6 inches in height may be more difficult to control than weeds t to 6 inches in height. If possible, when green foliage is removed either from grazing or mowing, allow the weeds to grow 2 to 4 inches in height.

Also, during harvesting forage or grain crops before spraying, weeds present in the field are also cut. Therefore, raise cutter bars as high as possible from the ground to cut stubble and weeds at a greater height, allowing sufficient green foliage to remain for applications.

BURNDOWN OF GRASS COVER CROPS OR VOLUNTEER CEREALS

The best results occur for control of grass cover crops or volunteer cereals when this product is applied prior to tilling or after boot stage, especially with a wheat cover crop or volunteer wheat. Complete control may not be achieved with treatments made between tilling and boot stage. Complete control of perennial cover crops should not be expected.

ENVIRONMENTAL CONDITIONS

This product is active over a wide range of environmental conditions such as cool (below 55°F), cloudy or overcast weather. However, these conditions will slow the activity of this product.

SPOT SPRAYING

Refer to the following table if only small areas are to be sprayed with labeled applications.

Mixing Instructions for Small Quantities for Spot Spraying

If the Broadcast Rate Per Acre for THIS PRODUCT is:	Add The Following Amount of THIS PRODUCT to 1 Gallon of Water:
t ½ pts.	1/3 fl. oz.
2 pts.	3/8 fl. oz.
2 ½ pts.	t/2 fl oz.
3 pts.	2/3 fl. oz.

Add t/3 to 1/2 fl. oz. of a nonionic surfactant for each gallon of spray at all times. Thoroughly wet the foliage, but not to the point of runoff when spot spraying in this manner.

TANK MIXING: ENHANCED BURNDOWN OF DIFFICULT-TO-CONTROL WEEDS AND FOR RESIDUAL WEED CONTROL

Photosynthetic Inhibitor Herbicides

To control difficult weeds, tank mix this product with other herbicides. The addition of other photosynthetic inhibitors (PSI) herbicides will slow the activity of this product. This allows this product to thoroughly distribute throughout a treated leaf, thus achieving better control than if this product was applied alone.

THIS PRODUCT may be applied in tank mixture with the following PSI herbicides:

AAtrex® Herbicide
Atrazine 4L Herbicide
Bicep Lite II
MAGNUM® Herbicide
Bicep MAGNUM® Herbicide
Canopy® Herbicide
Lariat® Herbicide
Lexone® Herbicide
Linex® Herbicide
Lorox® Herbicide
Lorox Plus™ Herbicide
Princep® Herbicide
Sencor® Herbicide

Always refer to the respective product label(s) for rates of applications, directions for use, limitations, and restrictions.

Improved Weed Control with PSI's

The addition of a PSI herbicide will help improve the control of difficult weeds listed below. Make a second application for best results.

Barnyardgrass
Broadleaf signalgrass
Cheatgrass
Cocklebur
Fall panicum
Giant ragweed
Knotweed
Kochia
Lambsquarters
Malva (cheeseweed)
Marestail
Morningglory
Pennsylvania smartweed
Perennial weeds (suppression only)
Prickly lettuce
Sedges
Tansymustard
Velvetleaf
Volunteer wheat

Improved Control of Perennial and Annual Broadleaf Weeds

Tank mixing with labeled 2,4-D ester (Low Volatile), 2,4-DB or Banvel® herbicide will help improve control when perennial broadleaf weeds such as Canada thistle, bindweed, dandelion, etc., or difficult to control annual broadleaf weeds such as giant ragweed or morningglory are present. Reduced grass control may be achieved when tank mixing the amine formulation of 2,4-D with this product.

Order of Tank Mixing

It is advisable to tank mix this product and other listed products as follows:

t. Fill spray tank 1/2 full with clean water or other approved carriers such as clear liquid fertilizer.
2. Begin tank agitation and continue throughout mixing and spraying.
3. Add dry formulations (WP, DF, etc.) to tank.
4. Add liquid formulations (SC, EC, L, etc.) to tank.
5. Add THIS PRODUCT to tank.
6. Add nonionic surfactant to tank.
7. Fill remainder of spray tank.

Always read other pesticide products labels for weeds controlled, rates of applications, directions for use, limitations, and restrictions.

It is advisable to perform a jar test to check physical compatibility when using different formulations of the herbicides listed on this label.

GENERAL PRECAUTIONS AND RESTRICTIONS

EQUIPMENT

THIS PRODUCT is corrosive to aluminum. Thoroughly flush all aluminum spray equipment and aluminum aircraft structures that are exposed to spray solution or spray drift with water immediately after use. The activity of THIS PRODUCT may be reduced in dry areas where dust stirred up by high winds or equipment tires can coat weed or plant leaves. Therefore, avoid applications in extremely dusty conditions.

LIMITATIONS AND PRECAUTIONS

- Unless otherwise indicated, THIS PRODUCT will severely injure or kill crop plants emerged at time of application if they come in contact with sprays.
- Do not pasture livestock in treated fields or feed treated foliage in cotton when this product is used as a cotton harvest aid.
- Do not use around home gardens, schools, recreational parks, or playgrounds.
- Do not apply to soils lacking clay minerals such as peat, muck, pure sand, artificial planting media for preplant and preemergence (to the crop) uses.
- To enable maximum weed and grass emergence prior to treatment, seedbeds and plantbeds should be formed as far ahead of planting and treatment as possible.
- Avoid disturbing soil when seeding or transplanting.
- Transplanted plants may become damaged when they come in contact with plastic mulch used for preplant weed control that has been treated with this product. To prevent damage to the crop, sufficient wash-off such as rainfall or sprinkler irrigation prior to planting may be needed.
- THIS PRODUCT will be ineffective in controlling or suppressing weeds and grasses that have emerged after application.

APPLICATION INSTRUCTIONS						
Crop	**Weeds**	**Use Pattern**	**THIS PRODUCT Rate Per Acre**	**Minimum Total Spray Per Acre**	**Grazing or Preharvest Interval (Days)**	**Additional Precautions, Restrictions and Directions**
ALFALFA (California only) New seedlings	—	Broadcast	0.7-1.3 pts. See Table on "Alfalfa: New Seedlings (CA Only)"	Ground: 10 gals. Air: 5 gals.	70	• Do not make more than one application per year. • Applications should be made during late winter or early spring. • Do not cut or harvest within 70 days after application. • Alfalfa foliage present at time of application will be burned. • Replanting may be needed due to the reduction of seedling stands. • Do not apply to seedling alfalfa grown for seed.
ALFALFA Preplant or Preemergence (No-till or conventional planting)	—	Broadcast or Banded Over Row	1.7 – 2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 2 applications per year. • Apply prior to emergence of the crop. Avoid disturbing soil when seeding. • Crop plants emerged at time of application will be killed.
ALFALFA Dormant season Established plantings Region A – See table at end of Alfalfa section	Weeds, including bluegrass, chickweed, henbit, downy brome, ryegrass, cheatgrass, dogfennel, tansymustard, London rocket, sowthistle, rescue brome, wild oats, and other winter annuals; and suppression of perennial weeds.	Broadcast	1.3-2.0 pts.	Ground: 10 gals. Air: 5 gals.	42	• Do not make more than one application per year. • **Fall regrowth:** Do not apply if last fall cutting is greater than 6". • **Spring regrowth:** Do not apply if last cutting is greater than 2". • After the crop is dormant, apply to well-established stands that are at least 1-year old. • Yield of first cutting may be reduced because alfalfa foliage present at the time of application will be burned. • Do not cut or harvest within 42 days after application. • For improved and longer-lasting weed control, tank mix with metribuzin (Lexone or Sencor). Always refer to the metribuzin label for weeds controlled, rates of applications, directions for use, limitations, and restrictions.
ALFALFA Dormant season Tank Mix with Velpar® L Herbicide Region A – See table at end of Alfalfa section	Weeds including chickweed, downy brome and tansymustard.	Broadcast	0.7-1.3 pts.	Ground: 10 gals. Air: 10 gals.	42	• Do not make more than 2 applications per year. • When weeds are less than 4 inches tall apply at 0.7 pt. rate of THIS PRODUCT. • Mix THIS PRODUCT with 1-2 qts. of Velpar L per acre. • Use lower rate of Velpar L on loamy sands or sandy loams. Always refer to the Velpar L label for weeds controlled, rates of applications, directions for use, limitations, and restrictions. • During the dormant season, make one application to established alfalfa stands. • **Fall regrowth:** Do not apply if last fall cutting is greater than 6". • **Spring regrowth:** Do not apply if last cutting is greater than 2". • Do not apply to alfalfa during the first season after seeding. • Temporary chlorosis may occur on alfalfa regrowth. • Increased chances of crop injury may occur if stress which may be caused in part by low fertility, disease, insects, winterkill, overcutting, drought or frost occur.

(Continued)

Crop	Weeds	Use Pattern	THIS PRODUCT Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
(Continued) **ALFALFA** Dormant season Tank Mix with Velpar L Herbicide Region **A** – See table at end of Alfalfa section	Weeds including chickweed, downy brome and tansymustard.	Broadcast	0.7-1.3 pts.	Ground: 10 gals. Air: 10 gals.	42	• DO NOT USE on gravelly or rocky soils, exposed subsoils, hardpan, sand or poorly drained alkaline soils as crop injury, including mortality, may result. • Do not cut or harvest within 42 days of application.
ALFALFA Dormant Season On established plantings: Region B: See table at end of Alfalfa section. On fall-seeded newly established stands less than 1-year-old: Region A – See table at end of Alfalfa section On fall-seeded newly established stands less than 1-year-old: Region B – See table at end of Alfalfa section	Weeds including London rocket, sowthistle, rescue brome, wild oats, chickweed, ryegrass, bluegrass, cheatgrass, dogfennel, tansymustard, henbit, downy brome, and other winter annuals; and suppression of perennial weeds **California:** Desiccation of weeds including bluegrass, ryegrass, shepherdspurse, chickweed, tansymustard, foxtail, sowthistle and groundsel.	Broadcast	0.7-1.3 pts.	Ground: 10 gals. Air: 5 gals.	60	• Do not make more than one application per year. • Applications should be made before first spring cutting and during late fall or winter months after the last fall cutting. • **California:** Do not apply if spring regrowth after grazing or cutting is more than 2 inches in Orange and Riverside counties, and all counties north of these counties. • **All other areas within Region B:** Do not apply if regrowth after grazing or cutting is more than 2 inches. • Do not harvest within 60 days of application. • Applications to alfalfa that is not dormant, or has broken dormancy, may result in stand and/or yield reductions. Replanting may be necessary. Green alfalfa foliage present at time of application will be burned. • If there is a severe weed infestation, total hay yield of first cutting may be reduced in alfalfa fields and the reduction is typically directly proportionate to the loss of weed weight. • For improved and residual weed control in dormant **established (at least 1-year-old) alfalfa**, tank mix with metribuzin (Lexone or Sencor). Do not apply tank mix with metribuzin on alfalfa that is less than 1-year-old. • Always refer to metribuzin label for weeds controlled, rates of applications, directions for use, limitations, and restrictions. **California** • If ryegrass, shepherdspurse, sowthistle or groundsel are present, use higher rate.
		Broadcast	0.7-1.3 pts.	Ground: 10 gals. Air: 5 gals.	60	
		Broadcast	0.5-0.8 pts.	Ground: 10 gals. Air: 5 gals.	60	

Crop	Use Pattern	THIS PRODUCT Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
ALFALFA (East of the Rocky Mountains) Between-cuttings treatment in established plantings. (Includes first year alfalfa)	Broadcast	0.7 pt.	Ground: 10 gals.	30	• Do not make more than 3 applications per year. • Control of weeds beyond the seedling stage and weed stubble cut off during harvest are less affected by this treatment. • Make applications immediately after alfalfa has been removed for hay or silage. • Do not treat more than 5 days after cutting. • A reduction in first year alfalfa stands and yields may occur if alfalfa is allowed to regrow more than 2 inches. • Burning of alfalfa foliage will occur at time of application. • Weed control may be reduced where moisture is limited such as in arid climates. • Do not cut or harvest within 30 days of application. • Apply as needed up to three times during the growing season in addition to a dormant application. • Do not make more than 2 applications during the first growing season of first-year alfalfa
ALFALFA (For use only in the following states: ID, MT, NV, OR, UT, WA, WY) Desiccation of alfalfa to aid harvesting alfalfa seed THIS PRODUCT/ Reglone Tank Mix	Broadcast	1.7-2.7 pts.	Ground: 20-25 gals. Air: 5-10 gals.	See Precautions	• Do not make more than 2 applications per year. • Do not harvest until at least 4 days after application. • Do not apply when weather conditions favor drift from treated areas. • Do not apply by ground equipment within 25 ft., or by air within 75 ft. of lakes; reservoirs; rivers; permanent streams; marshes or natural ponds; estuaries; and commercial fish farm ponds. • Use only on fields in production of alfalfa seed. Do not use on fields producing alfalfa for livestock feed. Do not use any portion of the treated field for human or animal feed, including seed, seed screenings, hay forage, or stubble. • Do not cut current year's treated alfalfa seed crop for hay or forage. Do not graze current year's treated alfalfa seed crops. • Do not use treated alfalfa seed for sprouting. Tag all alfalfa seed treated with THIS PRODUCT/Reglone tank mix at processing plants with, "NOT FOR HUMAN CONSUMPTION". The grower is responsible for notifying the processing plants of any seed crop treated with THIS PRODUCT/Reglone tank mix. • Remove ALL THIS PRODUCT/Reglone treated alfalfa seed screenings from the market because all screening from alfalfa seed processing are prohibited from feed channels.

ALFALFA: New Seedlings – Suppression and control of broadleaf weeds and grasses in new alfalfa seedlings grown for hay (California only).		
For Control of:	Rate/Acre*	
	For Suppression	For Control
Annual Bluegrass	—	10.7 – 21.3 fl. oz.
Chickweed	—	10.7 – 21.3 fl. oz.
Fiddleneck (6 inches tall or less)	5.4 – 10.7 fl. oz.	21.3 fl. oz.
Red Maids (6 inches tall or less)	—	10.7 – 21.3 fl. oz.
Shepherdspurse	10.7 – 21.3 fl. oz.	—
Spikeweed (4 inches tall or less)	5.4 fl. oz.	10.7 – 16.0 fl. oz.
Volunteer Small Grain (8 inches tall or less)	5.4 – 10.7 fl. oz.	21.3 fl. oz.

* Use the 5.4 fl. oz. rate only when alfalfa has at least 3 trifoliate leaves; use the 10.7 fl. oz. rate only when alfalfa has 6 trifoliate leaves; or use rates over 10.7 fl. oz. only when there are 9 trifoliate leaves.

ALFALFA-REGIONS

Region A
Alaska, California (counties of Del Norte, Siskiyou, Modoc, Shasta, Lassen, Plumas, Sierra and Nevada), Colorado, Connecticut, Delaware, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New York, North Dakota, Ohio, Oregon, Pennsylvania, Rhode Island, South Dakota, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming

Region B
Alabama, Arizona, Arkansas, California (all other counties not listed in Region A), Florida, Georgia, Hawaii, Louisiana, Mississippi, New Mexico, North Carolina, Oklahoma, South Carolina, Tennessee, Texas

Crop	Use Pattern	THIS PRODUCT Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
ALMONDS	Directed Spray	0.8-2.7 pts.	Ground: 10 gals.	—	• Do not make more than 5 applications per year. • Avoid allowing spray to contact green stems (except suckers) or foliage. • When spraying around young trees, use a shield or wrap plant. • Do not graze treated areas and do not feed cover crops grown in treated areas to livestock. • Do not apply when nuts to be harvested are on the ground. • Retreatment or spot treatments may be necessary for mature woody weeds, perennial weeds, late germinating weeds and green suckers.
ARTICHOKE (GLOBE)	Directed Spray	1.7-2.7 pts.	Ground: 20-100 gals.	1	• Do not make more than 3 applications per year. • Do not exceed 8 pts. per season. • Applications must be made at least 7 days apart. • Do not harvest within 24 hours of last application.
ASPARAGUS	Preplant or Preemergence Broadcast or Banded Over-Row	1.7-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Application should be made prior to emergence of the crop. • Emerged asparagus at time of application will be killed.
ASPARAGUS Preemergence to established plantings at least 2 years old.	Broadcast or Banded Over-Row	1.7-2.7 pts.	Ground: 10 gals.	6	• Do not make more than 3 applications per year. • Application should be made prior to emergence of the crop or after last harvest. • Emerged asparagus at time of application will be killed.
BEANS, DRY Not for use in California Sweet lupin White sweet lupin White lupin Grain lupin Adzuki beans Asparagus beans Black beans Broad beans	Harvest-Aid	0.8-1.3 pts.	Ground: 20 gals. Air: 5 gals.	7	• Do not make more than 2 applications per year. • Add nonionic spreader at 1 qt./100 gals. of spray mix. • Use a single application of the higher rate for vining type beans or bush type with lush growth. • May also be applied as a split application and may improve vine coverage. However, do not make more than 2 applications per year or exceed a total of 1.3 pints per acre.

(Continued)

Crop	Use Pattern	THIS PRODUCT Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
(Continued) Field beans Garbanzo beans Kidney beans Lablab beans Moth beans Mung beans Navy beans Pinto beans Rice beans Tepary beans Urd beans Guar **PEAS, DRY** Not for use in California Blackeyed peas Chickpeas Cowpeas Crowder peas Southern peas Catjang	Harvest-Aid	0.8-1.3 pts.	Ground: 20 gals. Air: 5 gals.	7	• Apply when at least 80% of the pods are yellowing and mostly ripe and when leaves are no more than 40% of bush type peas or beans or 30% of vine type peas or beans are green. • Do not apply when weather conditions favor spray drift. To reduce drift, a drift control agent may be included. • Not registered for use in dry beans and dry peas in California.
BERRIES Blackberry Blueberry Boysenberry Currant Elderberry Gooseberry Huckleberry Loganberry Raspberry	Post-emergence Directed Spray	1.3-2.7 pts.	Ground: 50 gals.	—	• Do not make more than 5 applications per year. • New canes or shoots can be injured. Therefore, apply before their emergence. • To prevent crop injury from spray mist, apply as a coarse spray.
CACAO	Directed Spray	1.3-2.7 pts.	Ground: 50-200 gals.	1	• Do not make more than 5 applications per year. • Apply when weeds are succulent and growth is from 1-6". • Retreatment or spot treatments may be necessary for mature woody weeds, late-germinating weeds and grasses and for perennials. • Use a shield for young trees to prevent sprays from contacting cacao plants, as injury may result. • Do not spray under windy conditions. • Do not graze treated areas or feed treated cover crops to livestock.
CASSAVAS, TANIERS & YAMS (Puerto Rico only)	Shielded Post Directed Spray	1.3 pts.	Ground: 50 gals.	90	• **Cassavas and Taniers:** Do not make more than 3 applications per year. • **Yams:** Do not make more than 2 applications per year. • Make applications when weeds are succulent and growth is 1-6". • Prevent spray from contacting crop to prevent injury to crop. • Do not spray under windy conditions. • Do not graze treated areas or feed treated forage to livestock.

General Information for Chemical Fallow

- As the density of stubble, crop residue or weeds increases, use higher spray volumes for better coverage.
- To control volunteer wheat or downy brome, fall-applied treatments generally work best with THIS PRODUCT. If possible, tank mix with atrazine for maximum burndown and residual control.
- Apply from immediately after harvest up to emergence of the newly seeded crop as a broadcast or band treatment.
- Before applying THIS PRODUCT, cut wheat as high as possible to avoid cutting weeds too short, and allow the weeds to grow at least 2-3" after harvest.
- The addition of dicamba (Banvel) or 2, 4-D ester (Low Volatile) may aid in the suppression of emerged perennial broadleaf weeds and large annual broadleaf weeds. Always refer to the product label(s) for 2, 4-D ester (Low Volatile), Banvel, or residual herbicide for rates of applications, directions for use, limitations, and restrictions.
- It is permissible to tank mix with registered residual herbicide combinations other than listed for extended weed control during the fallow period.
- Weeds and grasses emerging after application and weeds taller than 6 inches will not be controlled.
- Crop plants emerged at the time of application will be killed.
- The minimum total spray per acre allowed is 5 gallons for ground and 5 gallons for air applications.
- Apply 5-60 gallons spray mix per acre by ground application. When applying at less than 10 GPA by ground: Do not apply with floaters or exceed a speed of 10 mph. Apply with flat fan nozzles at 30-40 psi. Apply only in a tank mix with atrazine at a minimum of 0.5 lb. a.i./acre. By air: apply in 5-10 gallons of spray mix per acre.

Crop	Use Pattern	THIS PRODUCT Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
CHEMICAL FALLOW Continuous Wheat (2-3 month recropping interval)	Broadcast	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2.0 pts. Weeds 6": 2-2.7 pts.	Ground: 5 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Apply at least 45 days before seeding. • For volunteer wheat or downy brome control in spring, use at least 1.3 pts. of THIS PRODUCT per acre with a Photosynthetic Inhibitor Herbicide. • Refer to the section "General Information for Chemical Fallow".
CHEMICAL FALLOW Wheat-Fallow-Wheat Rotations (Fall applied after harvest; seeded 12-14 months later)	Broadcast	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2.0 pts. Weeds 6": 2-2.7 pts.	Ground: 5 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Spray before weeds produce seeds. • Control of volunteer wheat and downy brome increases when applications are made late August or early September. • For improved burndown and residual control of weeds, tank mix with Atrazine, Marksman® Herbicide, or Command® Herbicide. • For improved burndown and residual control of grass and broadleaf weeds, tank mix with metribuzin (Sencor 75DF). • Always refer to the respective product label(s) for rates of applications, directions for use, limitations, and restrictions. • Refer to the section "General Information for Chemical Fallow".
CHEMICAL FALLOW Wheat-Fallow-Wheat Rotations (Spring applied: seeded 3-5 months later)	Broadcast	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2.0 pts. Weeds 6": 2-2.7 pts.	Ground: 5 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • To conserve moisture, application should be made March 1 to April 15, prior to spring rains. • Even though moisture loss is greater when applications are made after the boot stage, volunteer wheat is easier to control after this stage. • For volunteer wheat or downy brome control in spring, use at least 1.3 pts. of THIS PRODUCT per acre with a Photosynthetic Inhibitor Herbicide. • Refer to the section "General Information for Chemical Fallow". • For burn down and residual control of grass and broadleaf weeds, tank mix with metribuzin, (Sencor 75DF/Lexone). • Always refer to the label for metribuzin (Sencor 75DF/Lexone) for rates of applications, directions for use, limitations, and restrictions.
CHEMICAL FALLOW Wheat-Annual Crop[1]-Wheat Rotations (Fall applied in wheat stubble)	Broadcast	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2 pts. Weeds 6": 2-2.7 pts.	Ground: 5 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • For improved burndown and residual weed control, tank mix with Atrazine or Marksman. Always refer to the respective product label(s) for rates of applications, directions for use, limitations, and restrictions. • Make applications after wheat harvest and before weeds produce seed. • If grasses such as foxtails or barnyardgrass recover, respray before seed production. • Applications made late August to November help control volunteer wheat and downy brome. • Refer to the section "General Information for Chemical Fallow".

Crop	Use Pattern	THIS PRODUCT Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
CHEMICAL FALLOW Wheat-Annual Crop-Wheat Rotations (Spring applied prior to planting an annual crop[1])	Broadcast	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2 pts. Weeds 6": 2-2.7 pts.	Ground: 5 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • For enhanced burndown and residual weed control, tank mix with Atrazine. Always refer to the respective product tabel(s) for Atrazine for rates of applications, directions for use, limitations, and restrictions. • For volunteer wheat or downy brome control in spring, use at least 1.3 pts. of THIS PRODUCT per acre with a Photosynthetic Inhibitor Herbicide. • Refer to the section "General Information for Chemical Fallow". • Refer to the Atrazine label for directions pertaining to soil pH and recropping intervals.

[1]Approved Annual Crops are grain sorghum, corn, wheat, or proso millet.

Crop	Weeds	Use Pattern	THIS PRODUCT Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
CLOVER AND OTHER LEGUMES including velvetbean, tespedeza, lupine, sainfoin, trefoil, vetch, crown vetch, and milk vetch. Dormant Season On established plantings: Region A – See table at end of Alfalfa section.	For desiccation of weeds, including London rocket, sowthistle, rescue brome, wild oats, chickweed, ryegrass, bluegrass, cheatgrass, dogfennel, tansymustard, henbit, downy brome, and other winter annuals, and suppression of perennial weeds. California – Use for desiccation of weeds including bluegrass, ryegrass, shepherdspurse, chickweed, tansy mustard, foxtail, sowthistle and groundsel.	Broadcast	1.3-2.1 pts.	Ground: 10 gals. Air: 5 gals.	60	• Do not make more than 1 application per year. • Applications should be made during late fall or winter months after the last cutting and before first spring cutting. • Do not apply if regrowth after grazing or cutting is more than 2". • Do not harvest within 60 days of application. • **CAUTION:** Stand and/or yield reductions may occur when applications are made to clover or other legumes that are not dormant, or have broken dormancy. Therefore, it may be necessary to replant. Burning will occur to green clover or other legumes' foliage present at the time of application. • Discoloration and temporary stunting will occur in clover or other legumes' foliage present at the time of application. • If there is severe weed infestation, the total hay yield of first cutting may be reduced in clover or other legumes fields and is usually directly proportionate to the loss of weed weight. In California: • If ryegrass, shepherdspurse, sowthistle or groundsel are present, use higher rate.
On established plantings: Region B – See table at end of Alfalfa section.		Broadcast	0.7-1.3 pts.	Ground: 10 gals. Air: 5 gals.	60	
On fall-seeded, newly established stands less than 1-year-old: Region A – See table at end of Alfalfa section.		Broadcast	0.7-1.3 pts.	Ground: 10 gals. Air: 5 gals.	60	
On fall-seeded, newly established stands less than 1-year-old: Region B – See table at end of Alfalfa section.		Broadcast	0.5-0.8 pts.	Ground: 10 gals. Air: 5 gals.	60	

Crop	Use Pattern	THIS PRODUCT Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
CORN **FIELD CORN** **POPCORN** **SWEET CORN** **SEED CORN** (Used alone)	Preplant or Preemergence Broadcast or Banded Over Row	Weeds 1-3": t.3-1.7 pts. Weeds 3-6": t.7-2 pts. Weeds 6": 2-2.7 pts.	Ground: t0 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Includes field, fresh sweet, forage, fodder and popcorn. • To permit maximum weed and grass emergence, seedbeds should be formed as far ahead of planting and treatment as possible. • Seeding should be done with a minimum amount of soil disturbance. • Control will not occur when applications are made after weeds and grasses have emerged. However, crop plants emerged at time of application will be killed.
CORN Tank mixes for no-till/reduced till	Preplant or Preemergence Broadcast or Banded Over Row	Weeds t-3": t.3-1.7pts. Weeds 3-6": t.7-2 pts. Weeds 6": 2-2.7 pts.	Ground: 10 gals. Air: 5 gals.*	—	• Do not make more than 3 applications per year. • Applications should be made as broadcast sprays before, during or after planting, but before crop emergence. • THIS PRODUCT may be tank mixed with the following herbicides for improved burndown or residual control: 2, 4-D Ester (Low Volatile), Harness®, Harness® Xtra, AAtrex®/Atrazine, Lasso® Herbicide, Banvel®, Linex®, Bicep MAGNUM®, Lorox®, Bicep Lite II MAGNUM®, Princep®, Dual MAGNUM, Prowl® Herbicide, Frontier®, Simazine, Guardsman®, Surpass®, EC Harmony®, Extra Herbicide Surpass, t00 (Preplant only) Topnotch®. • THIS PRODUCT may also be tank mixed with Ambush® insecticide. • Always refer to respective product label(s) for rates of applications, directions for use, limitations, and restrictions. * Always refer to respective product label(s) to confirm if these products can be applied by air.
FIELD CORN, POPCORN, SWEET CORN, SEED CORN	Post-emergence Directed Spray (including Hooded or Shielded)	0.7-1.3 pts.	Ground: 10 gals.	—	• Do not make more than 3 applications per year. • Applications should be made when weeds are actively growing. • Use a higher rate on larger or hard to control weeds. Weeds 6" or taller may not be controlled. • Severe damage and/or complete kill can occur if spray contacts corn plants. **For Hooded Or Shielded Sprayers:** • Use a hooded or shielded sprayer with skids or wheels on the spray boom to maintain spray height in order to prevent excessive crop phytotoxicity. • Apply by directing spray between the rows and using hooded or shielded sprayers to prevent spray contact with crop plants. **For Directed Spray Without Hooded Or Shielded Sprayers:** Corn height is measured from soil surface to top of whorl. • Apply when corn is at least 10" tall with nozzles arranged to spray no higher than the lower 3" of corn stalks. • Corn plants shorter than t0" may be injured and not recover. • For corn more than 20" tall: Arrange the nozzles to spray no higher than the lower t/3 of the corn stalks. • Injury to corn foliage will occur if sprayed. However, corn will recover and develop normally.

Crop	Use Pattern	THIS PRODUCT Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
FIELD CORN, POPCORN, SEED CORN	Harvest Aid Broadcast	0.8-1.3 pts.	Ground: 20 gals. Air: 5 gals.	7	• Do not make more than one application per year. Make ONE (1) application at least 7 days prior to harvest. • Apply after the corn is mature. This is indicated by a black layer which forms at the base of the kernels. You may consult your local agricultural authority for help in identifying the black layer. • Add nonionic surfactant containing at least 75% surface active ingredient at 0.25% v/v. • To desiccate mature broadleaf weeds and grasses or broadleaf weeds and grasses that are taller than 18", use 1.3 pts. • Drought stressed plants, especially broadleaf weeds, can be difficult to kill, and desiccation may not be complete.
FIELD CORN ONLY (grain, fodder, forage)	Post -emergence Directed Spray USOA Witch-weed Eradication Program	1.3 pts.	Ground: 10 gals.	—	• Do not make more than 3 applications per year. • If regrowth occurs, initiate sprays in late June to early July and repeat in early August. • Follow application instructions in post-emergence directed spray section above.
FIELD CORN ONLY (grain, fodder, forage) 2, 4-D Amine AE Tank Mix	Post-emergence Directed Spray USDA Witch-weed Eradication Program	5.4 fl. oz. + 0.5 lbs. 2, 4-D Amine AE	Ground: 10 gals.	—	• Do not make more than 3 applications per year. • Apply as directed spray onto grassy weeds and witchweed before witchweed blooms. If regrowth occurs, reapply. • Follow application instructions in post-emergence directed spray section above. • Always refer to respective product label(s) for rates of applications, directions for use, limitations, and restrictions.
COTTON (Used alone)	Preplant or Preemergence	1.7-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Apply prior to, during or after planting, but before crop emergence. • For fallow bed treatment, beds should be preformed to permit maximum weed and grass emergence prior to treatment. • Seeding should be done with a minimum of soil disturbance.
COTTON (California only; Used alone)	Preplant	5.4-10.7 fl. oz.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • For control of volunteer barley in preformed seedbeds.
COTTON Goal® Herbicide Tank Mix	Preplant or Fallow Bed Broadcast	1.7-2.7 pts.	Ground: 10 gals. Air: 10 gals.	—	• Do not make more than 3 applications per year. • Always refer to the Goal label for weeds controlled, rates of applications, and directions for use, limitations, and restrictions.
COTTON Other Tank Mixes	Preplant or Preemergence	1.7-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Apply as a broadcast spray before, during or after planting, but before crop emergence. • For improved residual control or burndown, THIS PRODUCT may be tank mixed with the following herbicides: Caparol® Herbicide, Cotoran® Herbicide, Cotton-Pro® Herbicide, Diuron, Dual MAGNUM®, Harmony® Extra (Preplant Only), Meturon® Herbicide, MSMA, Prowl®, Zorial® Herbicide. • When tank mixing with Cotoran® DF or Meturon® DF, follow mixing instructions carefully, maintain constant agitation, and see Order of Tank Mixing section in respective labels. • When tank mixing with any of the herbicides listed above, always refer to respective product label(s) for weeds controlled, rates of applications, directions for use, limitations, and restrictions.

COTTON HARVEST AID USE RES . CTIONS

- Do not make more than 4 applications per year.
- Do not pasture livestock in treated fields or feed treated foliage.
- Do not apply to cotton within 3 days before harvest.
- Repeat application if necessary. Do not exceed a total of 1.3 pts./A as a harvest aid.
- May be tank mixed with other cotton harvest aid materials known to be effective by a local expert. Unless otherwise instructed in this label, always refer to the respective product label(s) for rates of applications, directions for use, limitations, and restrictions.
- THIS PRODUCT can be applied in a tank mix with methyl parathion and/or Karate® insecticide. Always refer to the respective product label(s) for rates of applications, directions for use, limitations, and restrictions.
- Nodes above cracked bolls (NACB) timing is for guidance and is not intended to restrict the local expert in their use of the product.

Crop	Use Pattern	THIS PRODUCT Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
SOUTHERN COTTON Harvest aid for boll opening and defoliation (Tank mix with phosphate and chlorate defoliants).	Broadcast	5.4 fl. oz. + 1 pt. phosphate or 1 gal. chlorate	Ground: 10 gals. Air: 5 gals.	7	• Do not make more than 4 applications per year. • Development of immature bolls will be inhibited. • Apply when 80% or more of the bolls are open and the remaining bolls to be harvested are mature. • Always refer to tank mix product label(s) for rates of applications, directions for use, limitations, and restrictions.
SOUTHERN COTTON Additional tank mixes for boll opening and defoliation	Broadcast	2.1-3.3 fl. oz.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 4 applications per year. • THIS PRODUCT may be tank mixed with the following products to aid in defoliation and opening of mature bolls: Accelerate® Defoliant, Def® Defoliant, Dropp® Defoliant, Ethephon® Plant Growth Regulator, Folex® Defoliant, Harvade® Harvest Growth Regulator, Prep™ PGR. • Apply when 60% or more of the bolls are open and the remaining bolls to be harvested are mature. • Development of immature bolls will be inhibited. • Always refer to tank mix product label(s) for rates of applications, directions for use, limitations, and restrictions.
SOUTHERN COTTON Post Defoliation – To aid in opening of mature bolls and to desiccate green weeds.	Broadcast	0.7-1.3 pts.	Ground: 10 gals. Air: 5 gals.	3	• Do not make more than 4 applications per year. • If weed infestation is heavy or dense, use higher rate. • Apply when 75% or more of bolls are open and remaining bolls to be harvested are mature. • Development of immature bolls will be inhibited. • After a defoliation or conditioning application has been made, delay desiccation application of THIS PRODUCT approximately 3-7 days to minimize leaf sticking.
WESTERN COTTON Harvest aid for boll opening and early defoliation	Broadcast	3.7-5.4 fl. oz. + phosphate or sodium chlorate; and/or other compatible harvest aid products.	Ground: 10 gals. Air: 5 gals.	7	• Do not make more than 4 applications per year. • On rank cotton, use higher rate. • Do not use more than 5.4 fl. oz. of THIS PRODUCT for early defoliation as excessive desiccation may occur. • Early defoliation timing is when 60% or more of the bolls are open and the remaining bolls to be harvested are mature (approximately 4 NACB). • Development of immature bolls will be inhibited. • Do not use more than 4.0 lbs. of actual sodium chlorate defoliant per acre at this early defoliation timing. • Always refer to tank mix product label(s) for rates of applications, directions for use, limitations, and restrictions.

Crop	Use Pattern	THIS PRODUCT Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
WESTERN COTTON Harvest aid for boll opening and mid-to-late defoliation	Broadcast	5.4-10.7 fl. oz. alone or tank mix with sodium chlorate or phosphate defoliation and/or other compatible harvest aid products.	—	3 (Alone)	• Do not make more than 4 applications per year. • Use the 10.7 fl. oz. rate of THIS PRODUCT in desert cotton areas or on rank vigorous cotton. • Mid-to-late defoliation timing is when 75% or more of the bolls are open and remaining bolls to be harvested are mature (approximately 3 or fewer NACB). • Development of immature bolls will be inhibited. • Always refer to tank mix product label(s) for rates of applications, directions for use, limitations, and restrictions.
COTTON Stripper or Spindle Harvested Harvest aid for defoliation and boll opening.	Broadcast	2.1-7.5 fl. oz.	Ground: 10 gals. Air: 5 gals.	3	• Do not make more than 4 applications per year. • BECAUSE OF EXTREMES IN ENVIRONMENTAL AND PLANT CONDITIONS, IT IS ADVISABLE TO APPLY THE RANGE OF RATES ON A SMALL BLOCK OF COTTON TO DETERMINE THE RATE THAT BEST FITS YOUR NEEDS. • Apply when 75% of the bolls are open and the remaining bolls to be harvested are mature. • DEVELOPMENT OF IMMATURE BOLLS WILL BE INHIBITED. SLICE BOLLS AND INSPECT THE SEED FOR MATURITY. • THIS PRODUCT may be applied alone or tank mixed with the following cotton harvest aids: Accelerate Defoliant, Def Defoliant, Dropp Defoliant, Ethephone Plant Growth Regulator, Folex Defoliant, Harvade Harvest Growth Regulator, Prep PGR. • May be applied as a split application. Do not exceed a total of 1.3 pts./A. • To avoid leaf sticking, apply THIS PRODUCT as a desiccant approximately 3-7 days after defoliant or a conditioning application and 7-14 days before harvest. • Cooler temperatures may cause a longer waiting period between application of THIS PRODUCT as a desiccant and defoliation/conditioner. • South of Interstate – 10 in Texas, where temperatures are typically higher during defoliation, lower rates in the range may be necessary. • Always refer to tank mix product label(s) for rates of applications, directions for use, limitations, and restrictions.
COTTON Late season desiccation	Broadcast	0.7-1.3 pts.	Ground: 10 gals. Air: 5 gals.	3	• Do not make more than 4 applications per year. • BECAUSE OF EXTREMES IN ENVIRONMENTAL AND PLANT CONDITIONS, IT IS ADVISABLE TO APPLY THE RANGE OF RATES ON A SMALL BLOCK TO DETERMINE THE RATE THAT BEST FITS YOUR NEEDS. • May be applied as a split application. Do not exceed a total of 1.3 pts./A. • Apply when 85% of the bolls are open and the remaining bolls to be harvested are mature (approximately 0 NACB). • Development of immature bolls will be inhibited. Slice bolls and inspect the seed for maturity. • South of Interstate-10 in Texas, where temperatures are typically higher during defoliation, lower rates in the range may be necessary. • Delay desiccation application of THIS PRODUCT approximately 3-7 days to minimize leaf sticking if a defoliation or conditioning application has been made. • May be tank mixed with other harvest aid materials known to the local expert to be effective.

Crop	Use Pattern	THIS PRODUCT Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
COTTON Desiccation of regrowth	Broadcast	0.75-1.25 pts.	Ground: 10 gals. Air: 5 gals.	3	• Do not make more than 4 applications per year. • Use to desiccate regrowth occuring after defoliation or desiccation. • Because regrowth is difficult to control, thorough coverage with the full listed rate is necessary. • Control is dependent on growing conditions and desiccation of small new regrowth may not always be complete. • If regrowth is excessive, use higher rate.
EASTER LILIES (Field grown)	Preemergence	1.7-2.7 pts.	Ground: 10 gals.	—	• Do not exceed two applications per year.
FALLOW LAND Prior to planting of any crops.	Preplant Broadcast to Fallow Land	1.0-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 2 applications per year during the fallow period. • Fallow land may be between operations such as disking, ripping, plowing, leveling, irrigating or listing for ground preparation purposes. • Use for the control of weeds such as bluegrass, chickweed, henbit, downy brome, ryegrass, cheatgrass, dog fennel, tansy mustard, London rocket, sowthistle, rescue brome, wild oats, volunteer cereals and other winter annuals and for suppression of perennial weeds or sedges. • For weeds approaching the maximum size of 6", the higher rate may be used. • No more than 2 applications should be made during the fallow period. • Prior to application allow maximum weed emergence to maximize the benefit of this use. • Adhere to the preharvest intervals and other crop specific restrictions for planted crops elsewhere on this label.
GRASSES (For seed) (For use in seedbed preparation)	Preplant, at Planting, or Preemergence	1.3-2.7 pts.	Ground: 10 gals.	—	• Do not make more than 3 applications per year. • Prepare the seedbeds and allow weeds to germinate. • Apply THIS PRODUCT when weeds are at the 3-5 leaf stage. • Applications may be repeated as necessary (but only up to 3 applications per year) prior to grass emergence. • Do not graze treated areas or use the seed or straw from treated areas for animal feed or bedding.
GUAR (Preharvest desiccation)	Preharvest	1.3 pts.	Ground: 10 gals.	4	• Do not make more than 3 applications per year. • Apply after the pods are fully mature. • Do not graze treated areas or use the treated forage for animal feed.
GUAVA	Directed Spray	2.5 pts.	Ground: 10 gals.	—	• Do not make more than 4 applications per year. • Do not allow spray to contact green stems, fruit or foliage. • Do not graze treated areas. • Do not feed cover crops grown in treated areas to livestock. • Retreatment or spot spraying may be necessary for mature woody weeds, late-germinating weeds and grasses, and perennials.

Crop	Use Pattern	THIS PRODUCT Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
HOPS (ID, OR, & WA only)	Directed Spray and/or Suckering and Stripping.	1.3 pts.	Ground: 10 gals.	14	• Do not make more than 3 applications per year. • Retreatment or spot treatment may be necessary. • Do not allow spray to contact green stems, foliage, flowers, or cones as injury may result. • Do not allow animals to graze in treated hopyards. • Silage and hop vine refuse may be fed to livestock. • Spray only the basal 2 ft. of the vines for sucking and stripping. Repeat as necessary, but only up to 3 applications per season. • Experience with varieties other than Cascade, Yakima Cluster, and Bullion is limited. If using THIS PRODUCT on other varieties than these, test the use pattern on a small number of vines of each variety to determine sensitivity to injury. Do not use on unlisted varieties if unac ceptable crop injury occurs. • Chemical Pruning: Spray when vines are less than 3 ft. tall to burn back existing vines and obtain even emergence of subsequent vines. • APPLICATIDN TO HOP VINES LESS THAN 6 FT. TALL MAY CAUSE UNACCEPTABLE INJURY.
LENTILS NOT REGISTERED FOR USE ON LENTILS IN CALIFORNIA.	Harvest Aid	0.8-1.3 pts.	Ground: 20 gals. Air: 7 gals.	7	• Do not make more than 2 applications per year. • Add nonionic surfactant at 0.25% v/v (2 pts./100 gals) of the finished spray volume. • May also be applied as a split application. DO NOT make more than 2 applications or exceed a total of 1.3 pts/A. The split application may improve coverage. • Apply when crop is mature and at least 80% of the pods are yellowing and mostly ripe with no more than 30% of the leaves still green in color. • DO NOT apply when weather conditions favor spray drift. To reduce spray drift a drift control agent may be included.
MINT (Peppermint, Spearmint)	Dormant Season	1.3-2.0 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 2 applications per year. • For suppression of weeds such as groundsel, chickweed, downy brome, bluegrass, Italian ryegrass, prickly lettuce. • Apply when crop is dormant before spring growth begins and when weeds are less than 6" tall. • Do not apply more than 2.0 pts./A per dormant season. • May be tank mixed with Sinbar® Herbicide (terbacil) weed killer for improved contact activity and residual control of Italian ryegrass, prickly lettuce and groundsel. Apply this tank mixture no more than once per season. Always refer to Sinbar (terbacil) label for weeds controlled, rates of applications, directions for use, limitations, and restrictions.
ONIONS (seeded) AND GARLIC	Preplant/ Preemergence	1.7-2.7 pts.	Ground: 10 gals.	60 200 (CA only)	• Do not make more than 1 application per year. • For heavy weed infestations or wild oat control use the higher rate. Apply only one application per season at the 2.7 pts./A dosage. • Allow maximum weed and grass emergence prior to treatment but apply prior to crop emergence. • Apply a maximum of 2.7 pts./A per season.

Crop	Use Pattern	THIS PRODUCT Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
PASSION FRUIT	Directed Spray	2.5 pts.	Ground: 10 gals.	—	• Do not make more than 5 applications per year. • If bark is still green at application time, use a shield or wrap vine. • Pick all fruit off the ground prior to application if application is to be made during harvest season. • Do not allow animals to graze on treated areas. • It may be necessary to retreat or spot treat.
PEANUTS	Broadcast At Ground Crack Postemergence	5.4-10.8 fl. oz.	Ground: 10 gals.	—	• Do not make more than 2 applications per year. • To control or suppress small (1-6") emerged annual grass and broadleaf weeds in peanuts at ground crack. A second application may be made up to 28 days after ground crack. • For at ground crack use, THIS PRODUCT can be tank mixed with Pursuit® Herbicide or Dual MAGNUM for residual weed control. • Always refer to the Pursuit or Dual Magnum label for a list of weeds controlled, application rates, necessary precautions, and use limitations. • Make no more than 2 applications per season and do not apply a total of more than 10.8 fl. oz. of product per acre per season. • Crop foliage sprayed will be injured in the form of bronzing and crinkling, but the crop will recover and develop normally. • Do not apply by air.
PEANUTS Basagran® Herbicide Tank Mix	Broadcast At Ground Crack Postemergence	5.4-10.8 fl. oz.	Ground: 10 gals.	—	• Do not make more than 2 applications per year. • Tank mix THIS PRODUCT with Basagran at 1 pt./A. for improved control of weeds such as cocklebur, bristly starbur, smartweed and prickly sida. • This tank mix can be applied at the ground crack stage of peanuts. A second application may be made up to 28 days after ground crack. • Make no more than 2 applications per season and do not apply a total of more than 10.8 fl. oz. of product per acre per season. • Crop foliage sprayed will be injured in the form of bronzing and crinkling, but the crop will recover and develop normally. • Always refer to the Basagran label for weeds controlled, rates of applications, directions for use, limitations, and restrictions. • If peanuts show injury (leaf phytotoxicity and/or plant stunting) produced by any other herbicide treatment, do not apply this tank mix as injury may be enhanced and/or prolonged. • During prolonged periods of drought or unseasonably cold weather do not apply this tank mix as unsatisfactory weed control may result. • Do not apply by air.
PEANUTS Butyrac® Herbicide or Butoxone® 200 Herbicide Tank Mix	Broadcast Post-emergence	5.4-10.8 fl. oz.	Ground: 10 gals.	—	• Do not make more than 2 applications per year. • For improved control of weeds such as cocklebur, sicklepod and morningglory, tank mix THIS PRODUCT with 8-16 oz. (0.125-0.25 lbs.) per acre of Butyrac or Butoxone 200. • Do not apply a total of more than 10.8 fl. oz. of product per season and make no more than 2 applications per season. • Crop foliage sprayed will be injured in the form of bronzing and crinkling but the crop will recover and develop normally.

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Crop	Use Pattern	THIS PRODUCT Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
(Continued) **PEANUTS** Butyrac® Herbicide or Butoxone® 200 Herbicide Tank Mix	Broadcast Post-emergence	5.4-10.8 fl. oz.	Ground: 10 gals.	—	• Always refer to the Butyrac or Butoxone 200 labels for weeds controlled, rates of applications, directions for use, limitations, and restrictions. • Do not apply by air.
PIGEON PEAS (Puerto Rico only)	Directed Spray	t.3 pts.	Ground: 10 gals.	60	• Do not make more than 1 application per year. • Avoid contact with pigeon pea foliage. • Do not make more than 1 application per season. • Do not graze treated areas or feed treated forage to livestock. • Cannery waste can be fed to livestock.
PINEAPPLE	Directed Spray	1.3-2.7 pts.	Ground: 10 gals.	20	• Do not exceed 3 applications per season. • More mature weeds may require retreatment.
POTATO	Preplant or Preemergence Broadcast	0.7-1.3 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Apply up to ground cracking stage, before potatoes have emerged.
POTATO (California, Washington, Oregon, Idaho only; used alone)	Preplant Broadcast	0.4-0.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • For control of volunteer barley in preformed seedbeds.
POTATO Fresh Market Only Preharvest vine killing and weed desiccation. For Use Only in the states of: Colorado, Delaware, Idaho, Illinois, Indiana, Kansas, Maine, Maryland, Massachusetts, Michigan, Minnesota, Nebraska, Nevada, New Jersey, New York, North Dakota, Ohio, Oregon, Pennsylvania, South Dakota, Utah, Washington, Wisconsin and Wyoming	Broadcast	0.7-1.3 pts.	Ground: 20 gals.	3	For **Fresh Market Potatoes Only.** (Fresh Market Potatoes include potatoes that are sent directly from the field to a consumer, grocery store, or processor for use.) • **DO NOT** make more than 2 applications per year. • **DO NOT** use on potatoes that will be stored as tuber decomposition may result. • Potatoes must be harvested promptly after desiccation and processed or consumed immediately. • **DO NOT** apply to drought stressed potato vines. • **DO NOT** use to desiccate the vines of seed potatoes as seed pieces may fail to germinate and grow normally. • **DO NOT** pasture livestock in treated potato fields. • **DO NOT** exceed 2.6 pts./A per season. • Begin application when leaves begin to turn yellow. • Immature potato foliage is tolerant to **THIS PRODUCT.** However, desiccation will not be complete under this condition. • Use 1.3 pts./A rate where quick vine kill is desired. • For dense vine growth, use 2 applications of 0.6 pt/A. Split applications must be applied a minimum of five days apart.
RICE	Preplant or Preemergence Broadcast	Weeds 1-3": t.3-1.7 pts. Weeds 3-6": 1.7-2.0 pts. Weeds 6": 2-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Apply as a broadcast spray before, during or after planting, but before crop emergence. When vegetation is dense, use higher rates and spray volumes. • Seeding should be done with a minimum amount of soil disturbance. • This product will not control weeds and grasses emerging after application. Crop plants emerged at time of application will be killed.

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Crop	Use Pattern	THIS PRODUCT Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
(Continued) **RICE**	Preplant or Preemergence Broadcast	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2.0 pts. Weeds 6": 2-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• THIS PRODUCT may be tank mixed with other herbicides registered for this use for improved or extended weed control. Always refer to the tank mix product label(s) for weeds controlled, rates of applications, directions for use, limitations, and restrictions. • Do not flood/flush within 48 hours of application in order to ensure complete kill of vegetation. If cool, cloudy and/or wet weather delays speed of kill, do not flood/flush until complete kill is evident.
SAFFLOWER	Preplant or Preemergence Broadcast or Banded Over Row	1.7-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Apply before, during or after planting but before crop emergence.
SAFFLOWER (California only)	Preplant Broadcast	0.7 pt.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • For control of volunteer barley in preformed seedbeds.
SMALL GRAINS (Barley, wheat)	Preplant or Preemergence	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2 pts. Weeds 6": 2-2.7 pts.	Ground: 5 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year.
SMALL GRAINS (Wheat Only) Hoelon® 3EC Tank Mix	Preplant or Preemergence	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2 pts. Weeds 6": 2-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • A tank mix with Hoelon 3 EC will improve grass control. • Apply when weeds are actively growing and 1-6" in height. Weeds 6 inches or taller may not be controlled. • Do not apply this tank mix to barley as crop injury may result. • Always refer to the Hoelon 3EC label for weeds controlled, rates of applications, directions for use, limitations, and restrictions.
SORGHUM (Grain)	Preplant/ Preemergence Broadcast or Band	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2 pts. Weeds 6": 2-2.7 pts.	Ground: 10 gals. Air: 5 gals.	48 (grain) 20 (forage)	• Do not make more than 3 applications per year. • To allow maximum weed and grass emergence, seedbeds should be formed as far ahead of planting as possible • Seeding should be done with a minimum amount of soil disturbance.
SORGHUM (Grain) Atrazine & 2, and 4-D ester [Low Volatile] Tank Mix	Preplant or Preemergence	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2 pts. Weeds 6": 2-2.7 pts.		48 (grain) 20 (forage)	• Do not make more than 3 applications per year. • THIS PRODUCT may be tank mixed with Atrazine for improved preemergence or residual weed control. The addition of 2, 4-D ester (Low Volatile) may assist in the suppression of perennial and annual broadleaf weeds emerged at the time of application. Always refer to the specific product label(s) for weeds controlled, rates of applications, directions for use, limitations, and restrictions.
SORGHUM (Grain) Harmony® Extra Herbicide Tank Mix	Preplant	1.3-2.5 pts.	Ground: 10 gals.	48 (grain) 20 (forage)	• Do not make more than 3 applications per year. • For improved weed control, THIS PRODUCT may be tank mixed with Harmony Extra. • Always refer to the Harmony Extra label for weeds controlled, rates of applications, directions for use, limitations, and restrictions.

Crop	Use Pattern	THIS PRODUCT Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
SORGHUM (Grain)	Post-emergence Directed (Including Hooded or Shielded)	0.7-1.3 pts.	Ground: 10 gals.	48 (grain) 20 (forage)	• Do not make more than 2 applications per year. • Apply when weeds are actively growing. • Use higher rate on larger or hard to control weeds. Weeds 6" or taller may not be controlled. • Severe damage and/or complete kill can occur if spray contacts sorghum plants. • Do not exceed 2 postemergence-directed applications or exceed a total of 5.3 pts. THIS PRODUCT per season. **HOODED OR SHIELDED SPRAYERS** • To avoid excessive crop phytotoxicity, use a hooded or shielded sprayer with skids or wheels on the spray boom to maintain spray height. • Apply by directing spray between the rows and by using hooded or shielded sprayers to prevent spray contact with crop plants. **DIRECTED SPRAY WITHOUT HOODED OR SHIELDED SPRAYERS** • Apply when sorghum is at least 12" tall when naturally standing. • Do not exceed 30 psi nozzle pressure or spray under conditions which may cause excessive drift. • Use precision directed-spray application equipment adjusted so that no more than the lower 3" of the sorghum stalk is contacted by the application spray. • Some crop injury will occur. The degree of injury is related to the precision of application and spraying conditions.
SOYBEANS	Preplant or Preemergence	Weeds 1-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2 pts. Weeds 6": 2-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Do not exceed a total of 4.0 pts. of THIS PRODUCT per season. • Apply as a broadcast spray before, during or after planting, but before crop emergence. • THIS PRODUCT may be tank mixed with the following herbicides for improved burndown or residual control: 2,4-DB — Lorox Canopy — Lorox Plus Prowl Dual MAGNUM Goal — Pursuit Herbicide Harmony Extra — Scepter Herbidice (Preplant Only) — Sencor Herbicide Lasso — Surflan® Herbicide Lexone — Turbo Herbicide Linex • The rate of this product to be used in these tank mixtures is dependent on weed height and growing conditions. Where weed canopy is dense or under dry conditions, use the highest rate of THIS PRODUCT. Always refer to the respective product label(s) for a list of weeds controlled, rates of applications, directions for use, limitations and restrictions. • The lower application rate may be used when weeds are less than 4" tall and a selective postemergence spray or cultivation will be made within 3 weeks after planting. • Seeding should be done with a minimum amount of soil disturbance. • Do not graze or harvest for forage or hay before the R3 stage of soybean development (early pod).

Crop	Use Pattern	THIS PRODUCT Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
SOYBEANS 2, 4-D ester (Low Volatile) Tank Mix	Preplant or Preemergence	Weeds t-3": 1.3-1.7 pts. Weeds 3-6": 1.7-2 pts. Weeds 6": 2-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Apply 2, 4-D ester (Low Volatile) at 0.35-0.475 lbs. a.i./A at least 7 days prior to planting. • Apply 2, 4-D ester (Low Volatile) at 0.475-0.95 lbs. a.i./A at least 30 days prior to planting. • Do not apply 2, 4-D ester (Low Volatile) prior to planting soybeans if you are not able to accept the results of soybean injury including possible loss of stand and yield. • Do not use amine formulation as THIS PRODUCT activity may be reduced. • May be tank mixed with residual herbicides listed above. • Always refer to the 2, 4-D ester (Low Volatile) label for weeds controlled, rates of application, directions for use, limitations, and restrictions.
SOYBEANS	Post-emergence Directed Spray (includes Hooded or Shielded)	3.0-5.3 fl. oz.	Ground: 10 gals.	—	• Do not make more than 3 applications per year. • Apply when weeds are actively growing. • Use the lower rate of THIS PRODUCT for control of seedling johnsongrass, crabgrass, goosegrass, Brachiaria, Texas millet and pigweed less than 2" tall. • For control of 2-4" red rice, Brachiaria, barnyard grass, crabgrass, goosegrass, seedling johnsongrass, giant foxtail, and fall panicum, use 5.3 fl. oz. of THIS PRODCT • Use 5.3 fl. oz. of THIS PRODUCT for control of 2-3" sicklepod, purslane, pigweed, cutleaf ground cherry, and common ragweed. • Apply THIS PRODUCT at 5.3 fl. oz./A plus 0.2 lb. active ingredient per acre of a 2, 4-D formulation for control of 2-4" grasses in mixture with common cocklebur, morningglory, and red rice. • Always refer to the 2, 4-O label for weeds controlled, rates of applications, directions for use, limitations, and restrictions. • Do not graze or harvest for forage or hay. • If necessary, make a second and final application 7-14 days later. HOODED OR SHIELDED SPRAYERS • Apply by directing spray between the rows and using hooded or shielded sprayers to prevent spray contact with crop plants. • Use higher rate on larger (less than 6") or hard to control weeds. Weeds 6" or taller may not be controlled. • Severe damage and/or complete kill can occur if spray intentionally or accidentally (including drift of fine droplets) contacts the plants. DIRECTED SPRAY WITHOUT HOODED OR SHIELDED SPRAYERS • Do not treat on soybeans that are less than 8" tall. • Use precision directed spray application equipment adjusted so that no more than the lower 3" of the soybean plant is contacted by the application spray. • Do not exceed 30 psi nozzle pressure or spray under conditions which may cause excessive drift. • Some crop injury will occur. The degree of injury is dependent upon the precision of application and spraying conditions.

Crop	Use Pattern	THIS PRODUCT Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
SOYBEANS	Harvest Aid	5.4-10.7 fl. oz.	Ground: 20 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Indeterminant varieties: Applications should be made when at least 65% of the seed pods have reached a mature brown color or when seed moisture is 30% or less. Determinant varieties: Apply when plants are mature, i.e., beans are fully developed, ½ of leaves have dropped, and remaining leaves are yellowing. • Injury will occur on immature soybeans. • Mature cocklebur, especially drought-stressed plants, are tolerant to THIS PRODUCT and desiccation will not be complete. Always use the higher rate when treating cocklebur. • Do not apply within 15 days of harvest. • Do not graze or harvest for forage or hay.
STRAWBERRIES	Post-emergence Directed Spray	1.3 pts.	Ground: 20 gals.	21	• Do not make more than 3 applications per year. • Direct spray between the rows, using shields to prevent spray contact with crop plants. • Do not allow spray to contact strawberry plants as injury or excessive residues may result. • Do not apply more than 3 times per season. • Do not graze livestock in treated areas.
SUGAR BEETS	Preplant or Preemergence	1.3-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • For heavier weed infestations, use the higher label rate. • Seeding or transplanting should be done with a minimum amount of soil disturbance. • Crop plants emerged at time of application will be killed. • Can be used in fallow bed/stale seedbed for weed control. • Seedbeds or plantbeds should be formed as far ahead of treatment as possible to permit maximum weed emergence.
SUGARCANE	Post-emergence Directed Spray (included Hooded or Shielded)			—	**General Comments** • Do not make more than 2 applications per year, except applications made by air in Florida and Texas in which the maximum number of applications allowed is 1 per year. • Apply as a hooded, shielded or directed spray to avoid contact with cane foliage to prevent leaf burn and yield reduction. • If necessary, a second and final application can be made when new weed growth is 2-6" high. • Do not graze treated areas or feed treated forage to livestock.
-Florida-		1.3 pts.	Ground: 50 gals.	—	• Do not make more than 2 applications per year. • Optimum results can be obtained by applying in early spring (March-April) when weeds are small. • Do not apply after June 1 as cane growth may be stunted and yields reduced.
-Hawaii-		1.3 pts.	Ground: 20 gals.	—	• Do not make more than 2 applications per year. • Do not apply after cane rows have closed in.
-Louisiana-		0.7-2.0 pts.	Ground: 20 gals.	30	• Do not make more than 2 applications per year. • For tiller control, apply when tillers are less than 18" high. • For heavier weed infestations or tiller growth, use the higher rate.

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Crop	Use Pattern	THIS PRODUCT Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
(Continued) **SUGARCANE** -Florida & Texas-	Harvest Aid	0.4-0.7 pts.	Air: 5 gals.	—	• Do not make more than 1 application per year. • Under cool, cloudy weather conditions use higher rate. • Apply 3-14 days before burning and harvest.
SUNFLOWER	Preplant or Pre-emergence Broad-cast or Banded Over Row	1.7-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Apply before, during, or after planting but before crop emergence.
SUNFLOWER	Preharvest Desicca-tion Broadcast	0.8-1.3 pts.	Ground: 10 gals. Air: 5 gals.	7	• Do not make more than 2 applications per year. • Apply when sunflower seeds reach physiological maturity (when seed moisture is 35% or lower). For many varieties, this is equivalent to the time when the back of the heads are yellow and the bracts are turning brown. • Do not graze treated areas or feed treated forage to livestock. • When crop stands or weed infestations are heavy, use the higher label rate.
TARO, DRYLAND (Hawaii Only)	Post-emergence Directed Spray	1.3-2.1 pts.	Ground: 10 gals.	180	• Do not make more than 2 applications per year. • Do not allow spray to contact the taro plants as injury may result. • Make the first application when weed growth is 1-4" high. • Weeds emerging after the application will not be controlled. • A single re-treatment may be made; however, do not harvest dryland taro within 6 months of the last application.
TREE PLANTATION ESTABLISHMENT Deciduous and Conifers	Preplant Broadcast	1.3-2.7 pts.	Ground: 20 gals.	—	• Do not make more than 3 applications per year. • To allow maximum emergence of weeds prepare ground early. • Apply prior to planting. Plant with minimal soil disturbance. • For heavier weed infestations, use the higher application rate. • For improved burndown or residual control, tank mix THIS PRODUCT with other herbicides labeled for this use. • Always refer to the specific tank mix herbicide label(s) for weeds controlled, rates of applications, directions for use, limitations, and restrictions. • Do not apply in less than 20 gals./A as weed control will be reduced.
TREES AND VINES Orchards, Vineyards, Windbreak, Shade & Ornamental Trees: Acerola, Apples, Apricots, Avocados, Bananas, Beechnut, Brazil nut, Butternut, Calamondin, Cashew, Cherries, Chestnut, Chinquapin, Citrus, Citron	Directed Spray	1.7-2.7 pts.	Ground: 10 gals.	Apricots 28 Cherries 28 Figs 13 Kiwi Fruit 14 Nectarines 28 Olives 13 Peaches 14 Pistachios 7 Plums 28	• Do not make more than 5 applications per year, except for: Apricots, Cherries, Kiwi Fruit, Nectarines, Peaches, Plums, no more than 3 applications per year; Olives, no more than 4 applications and Pistachios, no more than 5 applications but only 2 applications after shells split. • Do not allow spray to make contact with green stems (except suckers), fruit or foliage. • Use the shield or wrap plant when spraying around young trees or vines. • Do not graze treated areas. • Do not feed covered crops grown in treated areas to livestock. • Do not apply when figs, nuts or olives to be harvested are on the ground. • For apricots – Do not harvest within 28 days after application and do not exceed 3 postemergence directed applications per season. • For cherries – Do not harvest within 28 days after application and do not exceed 3 postemergence directed applications per season.

(Continued)

Crop	Use Pattern	THIS PRODUCT Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
(Continued) Coffee Figs Filberts Grapefruit Grapes Hickory nut Kiwi fruit Kumquat Lemon Lime Macadamia nuts Mandarin Nectarines Olives Orange (sour & sweet) Papayas Peaches Pears Pistachios Plums Prunes Pummelo Satsuma mandarin Walnuts Other shade and ornamental trees such as arborvitae, ash, elm, fir, oak, pine etc.	Directed Spray	1.7-2.7 pts.	Ground: 10 gals.	Apricots 28 Cherries 28 Figs 13 Kiwi Fruit 14 Nectarines 28 Olives 13 Peaches 14 Pistachios 7 Plums 28	• **For figs** – Do not harvest within 13 days after application and do not exceed 5 postemergence directed applications per season. • **For grapes** – Treat when sucker growth is no more than 8" long. Late season applications to weeds should be made to avoid contact with desirable foliage. • **For kiwi fruit** – Do not treat more than 3 times per year. • For mature woody weeds, perennial weeds, late germinating weeds and green suckers, retreatment or spot treatment may be necessary. • **For nectarines** – Do not harvest within 28 days after application and do not exceed 3 postemergence directed applications per season. • **For olives** – Do not harvest within 13 days after application and do not exceed 4 postemergence directed applications per season. • **For peaches** – Do not harvest within 14 days after application, and do not exceed 3 postemergence directed applications per season. • **For pistachios** – Do not exceed 2 applications after shells split. • **For plums** – Do not harvest within 28 days after application and do not exceed 3 postemergence directed applications per season.
TREES AND VINES Tank Mixes	Directed Spray	1.7-2.7 pts.	Ground: 10 gals.	Always refer to other Tank Mix labels	• Do not make more than 5 applications per year, except for: Apricots, Cherries, Kiwi Fruit, Nectarines, Peaches, Plums, no more than 3 applications per year; Olives, no more than 4 applications and Pistachios, no more than 5 applications but only 2 applications after shell split. • This product may be tank mixed with registered residual herbicides listed below for combined emerged and residual weed control. THIS PRODUCT may be tank mixed with the following herbicides: Devrinol® Herbicide Goal® Karmex® Krovar® Herbicide Princep® Sinbar® Solicam® Herbicide Surflan® • Always refer to other herbicide labels for weeds controlled, rates of applications, directions for use, limitations, and restrictions.
TYFON (New Hampshire only)	Preplant Preemergence	1.7-2.7 pts.	Ground: 10 gals.	—	• Do not make more than 3 applications per year. • Seeding should be done with a minimum of soil disturbance. • Weeds and grasses emerging after treatment will not be controlled. • Crop plants emerged at time of application will be injured.
VEGETABLES (Seeded or Transplanted) Beans (Lima, Snap) Broccoli	Preplant Preemergence	1.3-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • Seedbeds or plantbads should be formed as far ahead of treatment as possible to permit maximum weed emergence.

(Continued)

Crop	Use Pattern	THIS PRODUCT Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
(Continued) Cabbage Cantaloupe Carrots Cauliflower Chayote fruit Chinese cabbage Chinese waxgourd Citron melon Collards Cucumber Eggplant Gherkin Gourd, Edible Groundcherry Lettuce Momordica spp. Musk melons Peas Pepino Peppers Pumpkin Squash Sweet Corn Tomatillo Turnips Tomatoes Watermelons	Preplant Preemergence	1.3-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Banded or broadcast treatment applications can be made before, during or after planting but prior to the crop emergence. • For heavier weed infestations, use the higher rate. • Seeding or transplanting should be done with a minimum amount of soil disturbance. • Crop plants emerged at time of application will be killed. • THIS PRODUCT can be used in fallow bed/stale seedbed for weed control alone or tank mixed with Goal®. Always refer to the Goal label for weeds controlled, rates of applications, directions for use, limitations, and restrictions. • Do not harvest tomatoes within 30 days after application.
VEGETABLES Eggplant Tomatoes Peppers	Directed Spray	1.3 pts.	Ground: 10 gals.	—	• Do not make more than 3 applications per year. • For control or suppression of emerged weeds between rows after crop establishment. • Use precision directed spray application equipment adjusted to prevent spray contact with crop plants. Do not exceed 30 psi nozzle pressure. Do not spray under conditions which may cause excessive drift. • Apply when weeds are succulent and weed growth is less than 6". • Do not apply more than 3 applications per season. • Do not allow animals to graze in treated areas. • Do not harvest tomatoes within 30 days after application.
VEGETABLES Tomatoes	After Final Harvest	1.6-2.5 pts.	Ground: 40-120 gals.	—	• Do not make more than 2 applications per year. • Apply in 40-120 gallons of water per acre (0.62-0.93 lb. a.i./A). • Add NIS containing 75% or more surface active agent at 0.125 v/v (1 pt./100 gals. spray solution). • To ensure maximum herbicide burndown, tomato vines should be thoroughly covered. • THIS PRODUCT may be deactivated and less efficacious when dirty or muddy water is used. • To aid in the removal of sweet potato whitefly, burn tomato vines with propane burners as soon as possible after the vines have dried down sufficiently. • DO NOT apply more than a total of 3 lbs. active ingredient (paraquat) per acre per season. • To minimize drift, do not use nozzles or nozzle configurations which produce the spray droplets (mist).
VEGETABLES (California, Washington, Oregon, Idaho only)	Broadcast	0.4-0.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 2 applications per year. • For control of volunteer barley in preformed seedbeds.

(Continued)

Crop	Use Pattern	THIS PRODUCT Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
(Continued) Lettuce Melon Sugar Beets **VEGETABLES** (California, Washington, Oregon, Idaho only) Tomatoes	Broadcast	0.4-0.7 pts.	Ground: t0 gals. Air: 5 gals.	—	• Do not harvest tomatoes within 30 days after application.
VEGETABLES Rhubarb	Dormant	1.7-2.7 pts.	Ground: 10 gals.	—	• Do not exceed 2 applications per year. • Apply during dormant season before buds in crown begin to grow.

RESIN SOAKING

Pines including Loblolly, Shortleaf, Longleaf, Slash, Virginia, Pond, Pitch, and Spruce Pines.

Tree Selection – Trees should be selected from stands on sites not subject to stress from periods of extreme drought stress because the desiccating effect of THIS PRODUCT is accentuated during drought, causing a reduction in the amount of oleoresin deposited in the xylem. Vigorous, non-stagnated natural or planted stands should be selected. Plan treatments of THIS PRODUCT in stagnated or commercial timber stands, not sooner than three years after a commercial thinning.

Application Directions: To bring the treatment into contact with sapwood (or xylem), apply water-diluted of THIS PRODUCT to an appropriate wound in the tree trunk.

Bark Streaks or Cuts: Use a standard or rotary bark hack or a chainsaw shipping tool (used in naval stores work) to remove a single 1-inch wide streak of bark about 1-2 ft. from ground level. Do not exceed 1/3 of the circumference of the tree. Serious girdling of the trunk and premature death of the tree can result if multiple streaks or cuts are made. Apply a coarse spray (about 1.7-5.0 ml) solution of THIS PRODUCT (1-5% cation, wt./wt. basis) to runoff to the exposed xylem, using a low-pressure sprayer. The amount of spray required per cut depends on tree circumference and the length of cut or streak. For example, for a 9-inch diameter tree, using 3 ml of 2 or 4% solution of THIS PRODUCT will cover the t-inch wide streak and will result in application of 60 or 120 mg per streak.

Time of Treatment: Less severe pine beetle infestation and longer tree life usually result during cool season treatments under non-drought seasons. However, resin soaking can occur from treatments made any time of the year.

Interval between Treatment and Tree Harvest: There should be at least a 6-month interval between application of THIS PRODUCT and tree harvest. However, it is preferable the interval is from 12-24 months, even though intervals of over 6 months may not be possible under conditions of drought or serious pine beetle attacks possibly making early harvest necessary.

With this treatment, there is a potential for promoting beetle attack or causing premature death of the tree. At high dosage rates, desiccation of the xylem tissue, rather than the desired resin soaking, may occur.

Note: This type of treatment may reduce stem growth between treatment and tree harvest.

Dilution Table for THIS PRODUCT (3.0 lbs. cation per gallon)

Concentrations of Cation Desired (wt./wt. basis)	Add the Following No. Gal. of Water to 2/3 Gallon of THIS PRODUCT
0.2%	118.8
0.5%	46.8
t.0%	22.9
2.0%	10.9
3.0%	6.9
4.0%	4.9
5.0%	3.7

Crop	Use Pattern	THIS PRODUCT Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
CONSERVATION RESERVE, FEDERAL SET-ASIDE, CONSERVATION COMPLIANCE PROGRAMS (For use in compliance with the Federal Conservation Reserve Program or Federal set-aside programs)	Broadcast	1.7-2.7 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 3 applications per year. • THIS PRODUCT may be tank mixed with other herbicides registered for this use for improved emerged weed control or extended weed control. Always refer to tank mix herbicide labels for weeds controlled, rates of applications, directions for use, limitations, and restrictions.
NONCROP USES	Broadcast or Spot Treatment	1.7-2.7 pts.	Ground: 10 gals.	—	• Repeat applications as necessary but do not make more than f0 applications per year. • To be used in noncrop areas including public airports, electric transformer stations, pipeline pumping stations, around commercial buildings, storage yards and other installations, and fence lines. • Avoid spray contact with the foliage of ornamentals or desired plants.

Crop	Use Pattern	THIS PRODUCT Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
PASTURE RESEEDING For suppression of existing sod and undesirable emerged broadleaf weeds and grasses prior to or at time of planting grasses or forage legumes	Broadcast	0.7-1.3 pts.	Ground: 10 gals. Air: 5 gals.	See specific geographic recommendation	• Do not make more than 3 applications per year. **West of Cascade and Sierra Nevada Mountains** • Apply in October through December after first fall rains and after weeds have emerged and sod has started new growth. • Apply on moderately to heavily grazed areas for best seeding results. • Do not use in heavy sod and weed growth areas. **East of Rocky Mountains** • Use the 1.3 pts. rate on vigorous or coarse sod species such as bromegrass. • Apply prior to, or at time of seeding grasses or forage legumes. • Apply only to grazed or mowed pastures not more than 3" in height at time of treatment. **Bermudagrass or Bahiagrass Sods** • Apply in late summer or early fall to sod not exceeding 3" in height. • For control of emerged little barley, apply in February or March before the mid-boot stage of little barley. **Bermudagrass and Coastal Bermudagrass Pastures** • Apply when bermudagrass is dormant. • For control of little barley, apply before the mid-boot stage. • Do not mow for hay until 40 days after treatment.
For control of endophyte-fungus-infected fescue forage legume/grass mixture and other grass pastures	Broadcast (Split Application)	0.7-1.3 pts. followed by 0.7-1.3 pts.	Ground: 10 gals.	—	• Do not make more than 2 applications per year. • Use split applications of 10-21 days apart if necessary. • Do not exceed 2.6 pts./A total in preparation for reseeding. • For spring plantings, the initial application of 0.7-1.3 pts. may be made the previous fall. • Apply when fescue is actively growing and no more than 4" high. • To reduce the infestation of endophyte-infested grass, do not allow fescue to go to seed starting with the preceding year's crop.
* For prickly pear desiccation in pastures * Not for use in California	Spot Sprays	0.8 fl. oz. per gallon of water	Spray to wet weed foliage	—	• Do not make more than 10 applications per year. • Hand-held equipment such as knapsacks, backpack sprayers, pump-up pressure sprayers, hand-guns, and hand-wands, can be used to direct the spray onto weed foliage so that the spray thoroughly wets foliage. • Mix 0.8 fl. oz. of THIS PRODUCT and 1/3 fl. oz. of a nonionic surfactant per gallon of water.
* For prickly pear desiccation in pastures * Not for use in California	Spot Sprays	0.8 fl. oz. per gallon of water	Spray to wet weed foliage	—	• Completely and uniformly cover all green prickly pear foliage with spray. • Apply in May through September for best desiccation results. • Do not use more than 1.6 pts. of THIS PRODUCT per acre per year. • Apply only to pastures with no more than 3" of height at time of treatment. • Tank mix with Grazon® P+D Specialty® herbicide at a rate of 1-2 fl. oz. per gallon of water for improved desiccation and perennial control of prickly pear. • Always refer to the Grazon P+D Specialty herbicide label for weeds controlled, rates of applications, directions for use, limitations, and restrictions

Crop	Use Pattern	THIS PRODUCT Rate Per Acre	Minimum Total Spray Per Acre	Grazing or Preharvest Interval (Days)	Additional Precautions, Restrictions and Directions
* For Juniper Species leaf moisture reduction or desiccation prior to Prescribed burning of pastures * Not for use in California	Broadcast	1.3 pts.	Air: 5 gals.	—	• Do not make more than 10 applications per year. • Use only in conjunction with prescribed burning as recommended and monitored by local SCS or University and Extension Range Specialists. • Apply during hot, dry weather conditions (generally July and August). • Use 2% v/v nonionic surfactant in a minimum of 5 gal spray solution. • Monitor juniper leaf moisture content. Maximum leaf moisture reduction generally occurs 3-4 weeks after application of THIS PRODUCT. • Significant soil moisture and/or wet weather conditions prior to or after application will decrease the potential for juniper crown burns. • Reduction in leaf moisture can be adversely affected by cool or humid weather conditions. • Do not graze livestock after application or prior to burning.
* Native Pastures * Not for use in California	Broadcast	1.0-1.25 pts.	Ground: 10 gals. Air: 5 gals.	—	• Do not make more than 2 applications per year. • Apply THIS PRODUCT for control of downy and Japanese brome. • Apply in spring after 90% node formation of brome species, but before full bloom. • Emerged native perennial grasses will be burned by application, but application after 90% node formation will allow adequate time for native grasses to recover and attain maximum growth in the use season. • Do not apply more than 1.25 pts. of THIS PRODUCT per year. • Apply only to pastures with no more than 3" of height at time of treatment.

Conversion Table
AMOUNT OF THIS PRODUCT to Be Applied

Ounces	Pints	Lb. a.i.	Acres/Gallon
2.5	0.16	0.06	51.3
4.8	0.30	0.11	26.7
5.28	0.33	0.12	24.2
5.52	0.35	0.13	23.2
10.00	0.63	0.23	12.8
11.00	0.69	0.26	11.6
t1.20	0.70	0.26	11.4
t2.00	0.75	0.28	10.7
16.00	1.00	0.38	8.0
20.00	1.25	0.47	6.4
20.80	1.30	0.49	6.2
24.00	1.50	0.56	5.3
28.00	t.75	0.66	4.6
32.00	2.00	0.75	4.0
40.00	2.50	0.94	3.2
43.20	2.70	1.00	3.0

STORAGE AND DISPOSAL

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

Pesticide Storage: Store in original container and place in a locked storage area. Do not mix or store in containers, spray tanks, nurse tanks, or such systems made of aluminum or having aluminum fittings. Store at temperatures above 32°F. For Emergencies involving a Spill, Leak, Fire, Exposure, or Accident contact: CHEMTREC at (800) 424-9300.

Pesticide Disposal: Pesticide wastes are acutely hazardous. Improper disposal of excess, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container Disposal:

Do not reuse container as container is not safe for food, feed or drinking water!

Nonrefillable Container (rigid material; less than 5 gallons): Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean 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 one-fourth 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. Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

Nonrefillable Container (rigid material; 5 gallons or greater): Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. Empty the remaining contents into application equipment or a mix tank. Fill the container one-fourth 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. 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. Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

Refillable Containers:

Refillable container. Refill this container with this product only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10% 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.

WARRANTY STATEMENT

IMPORTANT NOTICE – Seller warrants that this product conforms to the chemical description and is reasonably fit for purposes stated on the label when used in accordance with the directions and instructions under normal conditions of use; **but neither this warranty nor any other warranty of merchantability or fitness for a particular purpose, express or implied, extends to the use contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to seller, and to the extent consistent with applicable law, buyer assumes the risk of any such use.**

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Manufactured By:

Source Dynamics, LLC

10039 E. Troon North Drive

Scottsdale, AZ 85262

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FOR OFFICIAL USE ONLY

FILE SYMBOL
REGISTRATION NO. 82542-3

CONFIDENTIAL STATEMENT OF FORMULA ENCLOSED

DATE SUBMITTED	SUBMITTED BY (✓)	
	APPLICANT	BASIC SUPPLIER

Do Not Write Comments, Formula, or Parts of Formula on This Envelope

NOTE

It shall be unlawful—for any person to use for his own advantage or to reveal, other than to the Secretary, or officials or employees of the United States Department of Agriculture or other Federal agencies, or to the courts in response to a subpoena, or to physicians, and in emergencies to pharmacists and other qualified persons, for use in the preparation of antidotes, in accordance with such directions as the Secretary may prescribe, any information relative to formulas of products acquired by authority of Section 4 of the "Federal Insecticide, Fungicide, and Rodenticide Act."

Inert ingredient information may be entitled to confidential treatment

INERT CLEARANCE STATUS FORM

Reviewer Name: Sandra Rock			Request date: 07/16/2009
Tel: 703-308-6164	RD/IIAB	CUBE: S-7982	MAIL CODE: 7505P

A. COMMENTS:

Revised csf provided 8/3/09 omitting [redacted]

S. Rock 8/6/09

B. PESTICIDE PRODUCT INFORMATION:

Receipt Number: S-853671	Date on CSF: 05/19/2009	Food-Use Pesticide: [x] Yes []No
EPA Reg. No/File Symbol: 82542-3	Formulation: Alternate	
Product Name: Paraqual Concentrate		

C. INGREDIENT INFORMATION:

Ingredient No.1	Tolerance Exemption(s)[1] 910	920	930	940	950	960
Chem. Name:						
Trade Name: [redacted]						
CAS Reg. No. [redacted]						
Comments: This substance is not approved for food use.						

Ingredient No. 2						
Chem. Name:						
Trade Name:						
CAS Reg. No.:						
Comments:						

Reviewer Name: Sandra Rock **Review Date:** 7/16/2009

[redacted]

[1] *Language from the Code of Federal Regulations (40 CFR 180, subpart D):*
40 CFR 180.910: Inert ingredients used pre- and post-harvest; 40 CFR 180.920: Inert ingredients used pre-harvest; 40 CFR 180.930: Inert ingredients applied to animals; 40 CFR 180.940: Tolerance exemptions for active and inert ingredients for use in antimicrobial formulations; 40 CFR 180.950: Tolerance exemptions for minimal risk active and inert ingredients; and 40 CFR 180.960: Polymers.

Pages 296-301-*Confidential Statement of Formula may be entitled to confidential treatment*