



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

August 18, 2020

Luz G. Chan
Registration Manager
Drexel Chemical Company
P.O. Box 13327
Memphis, TN 38113

Subject: Label Amendment – Revised Alfalfa Directions for Use
Product Name: DREXEL AQUAPEN 3.8 HERBICIDE
EPA Registration Number: 19713-698
Application Date: February 13, 2020
Decision Number: 560771

Dear Ms. Chan:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance

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with FIFRA section 6. If you have any questions, please contact Kable Bo Davis by phone at 703-306-0415, or via email at davis.kable@epa.gov.

Sincerely,

A handwritten signature in black ink, appearing to read 'ES' or similar initials, followed by the word 'for' written in a cursive style.

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

Enclosure



AquaPen™ 3.8

Herbicide

For use in African Marigold; Alfalfa; Artichoke; Asparagus; Bushberries and Caneberries (Bearing and Nonbearing); Citrus, Pome and Stone Fruit Trees (Bearing and Nonbearing); Grapes (Bearing and Nonbearing); Small Fruits Climbing Vines (Bearing and Nonbearing); Brassica Head and Stem Vegetables; Carrots; Carrots Grown For Seed; Corn (Field, Field Seed, Fresh Sweet, Popcorn and Popcorn Seed); Cotton; Dry Bulbs; Edible Beans, Fallow; Farmstead; Forage Grasses; Fruiting Vegetables; Grain Sorghum; Green Onions; Hops; Leaf Lettuce; Leafy Brassica Greens; Lentils and Peas; Melons; Mint; Peanuts; Perennial Grasses Grown for Seed; Potatoes; Rice; Safflower; Soybeans; Strawberries; Sugarcane; Sunflower and Other Oilseeds; Tobacco; Triticale and Wheat. Also for use as a pre-emergence weed control herbicide in Turfgrass, Ornamentals, Landscapes or Grounds Maintenance, Nonbearing Fruit and Nut Tree Nurseries, Conifer and Hardwood Seedling Nurseries, Tree Plantations, and Noncropland areas.

ACTIVE INGREDIENT:

Pendimethalin..... 38.7%

OTHER INGREDIENTS: 61.3%

TOTAL: 100.0%

This product contains 3.8 pounds of Pendimethalin per gallon.

KEEP OUT OF REACH OF CHILDREN CAUTION

(See FIRST AID Below)

(See Side (Back) Panel for FIRST AID); (See Page ____ for FIRST AID)
(See Attached Booklet (Container Labeling) for Complete Directions for Use)

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EPA Est. No. 19713-XX-X

Net Content: ____ Gals. (____ L)

FIRST AID
<p>IF SWALLOWED:</p> <ul style="list-style-type: none"> • Immediately call a poison control center or doctor for treatment advice. • 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.
<p>IF IN EYES:</p> <ul style="list-style-type: none"> • 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.
<p>IF ON SKIN OR CLOTHING:</p> <ul style="list-style-type: none"> • 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.
<p>Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also call CHEMTREC at 800-424-9300 for medical emergency information.</p>

698SP-0820*P

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

CAUTION: Causes moderate eye irritation. Harmful if swallowed or absorbed through the skin. Avoid contact with skin, eyes or clothing.

PERSONAL PROTECTIVE CLOTHING (PPE)

Applicators and other handlers must wear: Long-sleeved shirt and long pants, chemical-resistant gloves made of barrier laminate, butyl rubber, nitrile rubber \geq 14 mils, neoprene rubber \geq 14 mils, natural rubber \geq 14 mils, polyethylene, polyvinyl chloride \geq 14 mils or viton \geq 14 mils and shoes plus socks.

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 air craft 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, 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 fish. Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff from treated areas may be hazardous to aquatic organisms in adjacent aquatic sites. Do not contaminate water when disposing of equipment washwaters or rinsate.

NON-TARGET ORGANISM ADVISORY STATEMENT

This product is toxic to plants and may adversely impact forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated site. Protect the forage and habitat of non-target organisms by following label directions intended to minimize spray drift.

DIRECTIONS FOR USE

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 protection.

This label must be in the possession of the user at the time of pesticide application. Observe all precautions and restrictions in this label and the labels of products used in combination with this product. The use of this product not consistent with this label can result in injury to crops, animals or persons.

Do not allow spray to drift from the application site and contact people, structures people occupy at any time and the associated property, parks and recreation areas, non-target crops, aquatic and wetland areas, woodlands, pastures, rangelands or animals.

Do not enter or allow other people (or pets) to enter the treated area until sprays have dried.

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, 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), notification to workers and Restricted Entry Interval (REI). The requirements in this box only apply to uses of this product that are covered by the WPS.

Do not enter or allow worker entry to treated areas during the REI of 24 hours.

Exception: If the product is soil-injected or soil-incorporated, the WPS, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated. PPE required for early entry to treated areas that is permitted under the WPS and that involves contact with anything that has been treated such as plants, soil or water is: Coveralls, chemical-resistant gloves made of barrier laminate, butyl rubber, nitrile rubber \geq 14 mils, neoprene rubber \geq 14 mils, natural rubber \geq 14 mils, polyethylene, polyvinyl chloride \geq 14 mils or viton \geq 14 mils and shoes plus socks.

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are not within the scope of the 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.

PRODUCT INFORMATION

AQUAPEN 3.8 HERBICIDE is a water-based selective herbicide containing 3.8 pounds of Pendimethalin per gallon. This product is a meristematic inhibitor that interferes with the plant cellular division or mitosis and cell elongation in the growing points of shoots and roots of susceptible weeds. When susceptible weeds germinate in the treated area, they contact the herbicide and both shoot and root growth stops. Translocation of the herbicide within the plant is limited. Affected weeds die shortly after growth is stopped, usually before emergence from the soil.

This product will control most annual grasses and certain broadleaf weeds as they germinate. This product will not control established weeds. Destroy emerged weeds prior to application. This product is most effective in controlling weeds when mechanically incorporated or when incorporated into the weed germination zone by adequate rainfall or overhead irrigation after application.

Unusually cold, excessively wet or hot and dry conditions that delay germination or extend germination over a long period of time can reduce weed control. Uneven application or improper soil incorporation can decrease weed control or cause crop injury. Soil incorporation deeper than directed can reduce weed control. Seedling diseases, cold weather, excessive moisture, shallow or deep planting, low or high soil pH, high soil salt concentration or drought can weaken seedlings and plants and increase the possibility of crop damage from this product. Under these conditions, crop yields can be reduced.

In the event of crop loss due to adverse weather conditions or other reasons, any crop registered for a pre-plant incorporated application of this product can be replanted without adverse effects the same year (see "CROPS" section for exceptions).

ENDANGERED SPECIES PROTECTION

This product may have effects on federally listed threatened or endangered plant species or their critical habitat. When using this product, you must follow the measures contained in the Endangered Species Protection Bulletin for the county or parish in which you are applying the pesticide. To determine whether your county or parish has a bulletin, and to obtain that bulletin, consult <http://www.epa.gov/espp/> or call 1-844-447-3813 no more than 6 months before using this product. Applicators must use bulletins that are in effect in the month in which the pesticide will be applied. New bulletins will generally be available from the above sources 6 months prior to their effective dates.

If endangered plant species occur in proximity to the application site, the following mitigation measures are required:

- If applied by ground, leave an untreated buffer zone of 200 feet. The product must be applied using a low boom (20 inches above the ground) and ASABE fine to medium/coarse nozzles.
- If applied by air, leave an untreated buffer zone of 170 feet. Must use straight-stream nozzles (D-6 or larger). Wind can be no more than 8 mph and release height must be 15 feet or less.

RESISTANCE MANAGEMENT

PENDIMETHALIN	GROUP	3	HERBICIDE
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For resistance management, this product is a Group 3 mode of action herbicide. Any weed population may contain or develop plants naturally resistant to this product and other Group 3 mode of action herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same field. Appropriate resistance management strategies should be followed.

To delay herbicide resistance, take one or more of the following steps:

- Rotate the use of this product or other Group 3 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds in a field.
- Use tank mixtures with herbicides from a different group if such use is permitted; where information on resistance in target weed species is available, use the less resistance-prone partner at a rate that will control the target weed(s) equally as well as the more resistance-prone partner. Consult your local extension service or certified crop advisor if you are unsure as to which active ingredient is currently less prone to resistance.
- Adopt an integrated weed-management program for herbicide use that includes scouting and uses historical information related to herbicide use and crop rotation, and that considers tillage (or other mechanical control methods), cultural (e.g., higher crop seeding rates; precision fertilizer application method and timing to favor the crop and not the weeds), biological (weed-competitive crops or varieties) and other management practices.
- Scout after herbicide application to monitor weed populations for early signs of resistance development. Indicators of possible herbicide resistance include: (1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; (2) a spreading patch of non-controlled plants of a particular weed species; (3) surviving plants mixed with controlled individuals of the same species. If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method such as hoeing or tillage. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields, and planting clean seed.
- If a weed pest population continues to progress after treatment with this product, discontinue use of this product, and switch to another management strategy or herbicide with a different mode of action, if available.
- Contact your local extension specialist or certified crop advisors for additional pesticide resistance-management and/or integrated weed-management recommendations for specific crops and weed biotypes.
- For further information or to report suspected resistance, contact Drexel Chemical Company representatives at (901) 774-4370.

WEEDS CONTROLLED

See "CROPS" section for additional weeds controlled.

Weeds Controlled By Up to 2.4 Quarts of This Product Per Acre		
Grasses		
Annual ryegrass*	Foxtail (Yellow)	Panicum (Fall)
Barnyardgrass	Goosegrass	Panicum (Texas)
Canarygrass*.a	Hairy chess*.b	Sandbur (Field)
Cheat*.a	Itchgrass*	Shattercane*
Crabgrass	Italian ryegrass*	Signalgrass*
Crowfootgrass	Japanese brome*.b	Wild proso millet*
Downy brome* (Cheatgrass)	Johnsongrass (Seedling)	Witchgrass
Foxtail (Giant)	Jointed goatgrass*.b	Woolly cupgrass*
Foxtail (Green)	Oat (Wild)*	
Broadleaves		
Amaranth (Palmer)	Lambsquarters (Common)	Shepherdspurse*
Bugloss (Small).b	Lambsquarters (Slimleaf).a	Smartweed (Pennsylvania)*
Carpetweed	London rocket*	Spurge (annual)
Chickweed (Common)*	Mustard (Black).a	Velvetleaf*
Henbit	Pigweed spp.	Waterhemp spp.
Kochia	Purslane	
Lady's thumb	Pusley (Florida)	
*Suppression but controlled when use rate of this product is greater than 2 quarts per acre.		
.a Not controlled in California.		
.b Neither suppressed nor controlled in California.		

Weeds Controlled by 2 Quarts or Greater of this Product Per Acre		
Grasses		
Annual bluegrass Browntop Panicum Guinea grass ^a	Junglerice Lovegrass Sprangletop (Mexican)	Sprangletop (Red) Swollen fingergrass
Broadleaves		
Dodder* Fiddleneck	Knotweed (Prostate) Morningglory**	Puncturevine
*Use the highest labeled rate of this product specified in the specific crop for optimum control of Dodder. **Suppression ^a Not controlled in California.		

APPLICATION RATE

Use rates for this product when used alone, in tank-mix or for sequential applications are given in the "CROPS" section. Use rates of this product vary by soil texture and organic matter. See the following table for soil texture groupings used in this label.

Soil Texture	Soil Type
Coarse	Loamy sand, Sand, Sandy loam
Medium	Loam, Sandy clay, Sandy clay loam*, Silt, Silt loam
Fine	Clay, Clay loam, Silty clay, Silty clay loam*
Peat and Muck**	-
*Sometimes considered as transitional soils and may be classified as either medium or fine textured soil. **This product may be used on peat and muck soils but weed control may be inconsistent and/or reduced. Use maximum labeled use rate allowed in the specific crop.	

TIMING OF APPLICATION

This product will provide most effective weed control when applied by ground or aerial equipment and subsequently incorporated into the soil by rainfall, sprinkler irrigation or mechanical tillage prior to weed seedling emergence from soil. This product can also be applied through chemigation including flooded basin irrigation systems. Apply this product as pre-plant surface, pre-plant incorporated, surface incorporated, pre-emergence, early post-emergence, post-emergence incorporated (CULTI-SPRAY) or lay-by treatment. See the "CROPS" section for specific application directions by crop.

Pre-plant Surface Applications: Apply this product alone or in tank-mixtures up to 45 days before planting in minimum tillage or no-tillage production systems. When making early pre-plant surface applications (15 to 45 days prior to planting), tank-mix this product or follow by a post-emergence herbicide application. Rainfall or sprinkler irrigation within 7 days after application is required to move this product into the upper soil surface where weed seeds germinate.

Pre-plant Incorporated Applications: Apply this product and incorporate into the upper (1 to 2 inches) soil surface up to 60 days before planting. Use an implement capable of giving uniform incorporation. Two-pass incorporation usually results in a more consistent result.

Surface Incorporated Applications: Uniformly apply this product as broadcast or banded treatment to soil surface underneath established trees and/or in ground areas between tree rows. Incorporate into upper (1 to 2 inches) soil surface using either rainfall, sprinkler irrigation or shallow mechanical incorporation using an implement capable of giving uniform incorporation. Two-pass incorporation usually results in a more consistent result.

Pre-emergence Surface Applications: Broadcast treatment uniformly to the soil surface at planting and up to 2 days after planting (refer to "CROPS" section for exceptions). Rainfall, sprinkler irrigation or shallow mechanical incorporation within 7 days after application is required to move this product into the upper soil surface where weed seeds germinate. If adequate rainfall or irrigation does not occur and weed seedling emergence begins, a shallow cultivation, rotary hoeing or light harrowing will improve performance. Make sure that crop seeds are below the tilled soil surface area.

Early Post-emergence Applications: Apply this product prior to weed seedling emergence or in a tank-mix with products that control the emerged weeds. Refer to the "CROPS" section for specific post-emergence application directions by crop.

Post-emergence Incorporated Applications (CULTI-SPRAY): Prior to application, cultivate crops in such a manner as to throw at least 1 inch of soil over the base of the crop plants. This will prevent direct contact of this product and the zone of brace root formation. Broadcast apply this product with a ground sprayer when crop is at least 4 inches tall up to lay-by. Use drop nozzles if crop foliage will prevent uniform coverage of the soil surface within the rows. Thoroughly and uniformly incorporate treatments of this product into the soil with (1) a sweep-type or rolling cultivator set to provide thorough incorporation in the top 1 inch of soil or (2) adequate overhead irrigation water or rainfall. See "CORN" and "GRAIN SORGHUM" under the "CROPS" section for more details on Culti-Spray application.

Lay-by Application: Apply this product directly to the soil between rows as a directed spray following the last normal cultivation (lay-by). See the "CROPS" section for more details on lay-by application.

Split Applications: This product may be applied pre-plant incorporated up to 60 days prior to planting followed by a pre-emergence application at planting or up to 2 days after planting. The total amount of this product applied per acre per season cannot exceed the highest specified rate for any given soil type. See the "CROPS" section for more details on split applications.

Fall Applications: This product may be used in Fall application programs in certain crops. See the "CROPS" section for details on Fall application timing.

APPLICATION INSTRUCTIONS

This product may be applied using either water or sprayable fluid fertilizer (such as straight 32-0-0 or 28-0-0) as the spray carrier. Additionally, this product may be impregnated on dry bulk fertilizer. Do not use sprayable fluid fertilizer as a carrier after crop emergence unless the typical fertilizer burn symptoms on the crop are acceptable.

AERIAL APPLICATION

Uniformly apply in 5 or more gallons of water per acre.

Exercise precautions to minimize drift. Do not apply during periods of gusty winds or when wind conditions favor drifting.

Spray drift can cause injury to sensitive crops. Use a flagman or an automatic mechanical flagging unit on the aircraft to avoid overlapping and possible crop injury.

GROUND APPLICATION (BROADCAST)

Uniformly apply with properly calibrated ground equipment in 10 or more gallons of water per acre or 20 or more gallons of liquid fertilizer per acre. Use sprayers equipped with appropriate nozzles that provide uniform and accurate spray distribution and minimize drift. Keep the bypass line on or near the bottom of the tank to minimize foaming. Nozzle and in-line screens must be no finer than 50 mesh. Application of this product during periods of gusty winds may result in uneven applications. Do not apply this product post-emergence in liquid fertilizers.

If liquid fertilizer/herbicide(s) mixture separates in the spray tank, clogged equipment and uneven application can result. Always predetermine the compatibility of this product alone or with other herbicides based on the following compatibility jar test:

1. Add 1 pint of fertilizer to a quart jar.
2. Add 1 to 4 teaspoons of the Dry Flowable (DF), Wettable Powder (WP), Aqueous Solution (SL), Flowable (SC) or Liquid (L) formulation (depending on mixing ratio required) to the liquid fertilizer. The number of teaspoons of the formulation to add can be determined by the following formula:

$$\frac{\text{Lbs. or Pts. of the Product/Acre}}{\text{Gals. of Fertilizer/Acre}} \times 11.4 = \text{No. of Teaspoons of Herbicide to Add to 1 Pint of Fertilizer}$$

3. Close the jar and agitate until the herbicide(s) are evenly dispersed in the liquid fertilizer. If the materials do not disperse well, it may be necessary to slurry the chemicals in water before adding to the fertilizer.
4. After dispersing the materials, add appropriate number of teaspoons of this product to the jar and shake well. Add water soluble concentrate herbicides to the mixture last and agitate. Let the mixture stand for 30 minutes and then observe the results. Look for signs of separation: an oily layer or globules, sludge, flakes or other precipitates.
5. Evaluate compatibility.
 - (a) If the herbicide(s) and liquid fertilizer mixture does not separate, use this mixture in your spray tank.
 - (b) If the mixture separates but mixes readily with shaking, the mixture can be used provided that good agitation is maintained in the spray tank.
 - (c) If separation of the mixture occurs and agitation does not correct this problem, a compatibility agent is needed.

6. If the need for a compatibility agent is demonstrated, the following procedure is recommended: Using a clean quart jar, repeat step 1 above and add one-half teaspoon of the compatibility agent to the liquid fertilizer. Mix well and repeat steps 2, 3 and 4. If separation or precipitation occurs with the compatibility agent, do not use this product with that specific liquid fertilizer.

GROUND APPLICATION (BAND)

Uniformly apply the broadcast equivalent rate and volume per acre. To determine these:

$$\frac{\text{Band width in Inches}}{\text{Row width in Inches}} \times \text{Broadcast Rate per Acre} = \text{Band Rate per Acre}$$

$$\frac{\text{Band width in Inches}}{\text{Row width in Inches}} \times \text{Broadcast Volume per Acre} = \text{Band Volume per Acre}$$

GROUND APPLICATION (DRY BULK FERTILIZER)

Apply this product/dry bulk fertilizer mixtures with ground equipment only. See "CROPS" section for crops suitable for dry bulk fertilizer applications. **Do not** impregnate this product onto coated ammonium nitrate or limestone because these materials will not absorb the herbicide. Dry fertilizer blends containing mixtures of ammonium nitrate or limestone may be impregnated with this product. A minimum of 200 pounds of impregnated dry bulk fertilizer excluding the weight of ammonium nitrate or limestone must be applied per acre.

Use the following formula to determine the amount of this product (in quarts) to be impregnated on a ton of dry bulk fertilizer based on the rate of fertilizer to be applied per acre:

$$\frac{2000}{\text{Lbs. of Dry Fertilizer}} \times \text{This Product (Rate per Acre)} = \text{This Product per Ton of Fertilizer}$$

To impregnate this product on bulk fertilizer, use a closed rotary drum mixer or other commonly used dry bulk fertilizer blender equipped with suitable spray equipment. Spray nozzles must be placed to provide uniform coverage of this product onto the fertilizer during mixing.

Apply the mixture of this product and bulk fertilizer with an accurately calibrated dry fertilizer spreader. This product/dry bulk fertilizer mixture must be spread uniformly on the soil surface.

CHEMIGATION APPLICATION (VIA SPRINKLER IRRIGATION SYSTEMS)

This product may be applied as a chemigation treatment through sprinkler irrigation systems. Refer to "CROPS" section for individual crops.

Do not apply this product via chemigation to crops unless specified in the "CROPS" section.

Apply this product **ONLY** through a sprinkler irrigation system of the following type: center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set or hand move. Only apply this product through a drip irrigation system that has emitters above the soil surface. Do not apply this product through any other type of sprinkler or drip irrigation system.

Uniform distribution of irrigation water treated with this product is the sole responsibility of the applicator and is required to avoid crop injury, lack of herbicide effectiveness or illegal pesticide residues in the crop. If you have any questions about calibration, contact your state extension service specialists, equipment manufacturers or other experts.

The system must be properly calibrated (with water only) to ensure that the amount of this product applied corresponds to the specified rate. Apply this product in one-half to three-fourths inches of water during the first sprinkler set (use at least 1 inch of water in the states of New Mexico, Oklahoma and Texas). Mix this product with water at a 1:1 ratio in injection nurse tank to assist with product flowability. Maintain agitation in the injection nurse tank to keep a uniform herbicide suspension during application. When application is complete, flush the system with water.

Chemigation Instructions for Low Volume Micro Sprinklers

Output of low volume sprinkler equals 4 to 50 gallons per hour (gph) per emitter. Point of application must be above ground. Irrigation system should run a sufficient amount of time prior to injection of this product to have all emitters functioning properly. After system is operating properly, length of injection should be such that at one period of time during the injection, the first and last emitters in the system contain water treated with this product. Add this product to the supply tank already filled with the volume of water required for the injection period. Maintain proper agitation in the injection tank containing this product. Mix this product in clean water and inject down-line from filters. Following injection of this product, flush the system for a period of

time sufficient to clear the line of this product. (If application of this product is made during a normal irrigation cycle, make the injection during the last stage.)

Chemigation Calibration of Low Volume Micro Sprinklers

Calculation of use rate is based on wetted area around emitters, **not** on tree acres. To determine the correct amount of this product, use the following formula:

1. Treated area per each emitter = A

$$A = 3.14 \times (\text{radius} \times \text{radius})$$

2. The area in square feet wet in each acre = B

$$B = \frac{A \times \text{Emitters/Acre}}{144}$$

3. The total area (sq. ft.) wet by your system = C

$$C = B \times \text{Acres covered by system}$$

4. Rate per treated acre of this product (based on length of control desired) = R

$$\text{Amount of This Product to Inject (S)} = \frac{C}{43,560} \times R = \text{Quarts of This Product}$$

Example:

If the average distance from emitter to perimeter of wetted area measured 1 inch below soil surface is 13 inches, then:

$$A = 3.14 \times (13" \times 13") \text{ and } A = 530.7 \text{ sq. in.}$$

If there are 300 emitters per acre, then:

$$B = \frac{530.7 \times 300}{144} \text{ and } B = 1105.6 \text{ sq. ft. wetted per acre}$$

If the system covers 20 acres, then:

$$C = 1105.6 \text{ sq. ft.} \times 20 \text{ acres and } C = 22,112 \text{ sq. ft. wetted by the system}$$

If the desired application rate per treated acre is 2 quarts of this product, then:

$$S = \frac{22,112}{43,560} \times 2 \text{ and } S = 1 \text{ quart of this product}$$

have to be injected into the system

Special Restrictions For Chemigation

1. Do not apply when wind speed favors drift beyond the area intended for treatment.
2. Do not connect an irrigation system used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.
3. A person knowledgeable of the chemigation system and responsible for its operation or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.
4. Tail water (runoff water) from chemigation that contains this product must be recirculated and/or contained in the field in a cistern or holding reservoir from the initial application and/or used only on adjacent, approved crops for which this product is registered for this type of application.
5. The pesticide injection pipeline must contain a functional, automatic quick-closing check valve to prevent the flow of fluid back toward the injection pump. It must also contain a functional, normally closed solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
6. The sprinkler chemigation system must contain a functional check valve, vacuum relief valve, and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow. In addition, systems must use a metering pump such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
7. The sprinkler chemigation system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.

8. The irrigation line or water pump must include a functional pressure switch that will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Chemigation Systems Connected to Public Water Systems

1. Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.
2. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
3. All chemigation systems connected to public water systems must also follow restrictions listed in the preceding sections involving chemigation.

CHEMIGATION APPLICATION (VIA FLOOD, FLOODED BASIN OR GRAVITY FLOW IRRIGATION SYSTEMS)

This product may be applied via flood, flooded basin or gravity flow irrigation systems, but only to the following crops: Alfalfa, bearing and non-bearing fruit and nut trees, bearing and non-bearing Bushberries and Caneberries, bearing and non-bearing Olive trees, bearing and non-bearing Vineyards, bearing and non-bearing small fruit climbing vines, non-bearing Date palm, and non-bearing Fig trees.

Use Instructions for Flooded Basin Irrigation

1. This product may be applied through flood, flooded basin or gravity flow irrigation systems designed to uniformly distribute irrigation water along the soil surface. Solid set systems utilizing tall riser for overhead application are excluded.
2. Follow all label directions for this product regarding rates per acre, timing of application and crop specific use precautions and restrictions.
3. A person knowledgeable of the chemigation system and responsible for its operation or under the supervision of the responsible person shall shut the system down and make necessary adjustments should the need arise.
4. Mix this product with water at a 1:1 ratio in the injection nurse tank to assist with product flowability. Maintain agitation in the injection nurse tank to keep a uniform herbicide suspension during application. When application is complete, flush the system with water.
5. Systems using a gravity-flow pesticide dispensing system must meter the pesticide in the water at the head of the field downstream of a hydraulic discontinuity such as a drop structure or weir box to decrease potential for water source contamination from backflow water.
6. Tail water (runoff water) from flood, flooded basin or gravity flow irrigation that contains this product must be recirculated and/or contained in the field in a cistern or holding reservoir from the initial application and/or used only on adjacent approved crops for which this product is registered for this type of application.
7. Systems utilizing a pressurized water and pesticide injection system must meet the following requirements:
 - The system must contain a functional check valve, vacuum-relief valve and low-pressure drain appropriately located in the irrigation pipe to prevent water source contamination from backflow.
 - The pesticide injection pipeline must contain a functional, automatic, quick closing check valve to prevent flow of fluids back towards the injection pump.
 - The pesticide injection pipeline must also contain a functional, normally closed solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
 - The system must contain a functional interlocking control to automatically shut off the pesticide injection pump when the water pump stops.
 - The irrigation pipe or water pump must include a functional pressure switch, which will stop the pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
 - Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) of effective design and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
 - Any alternative to the above safety devices must conform to the list of EPA-approved alternative devices.
8. Regularly measure the flow in the field to ensure the correct amount of this product is being metered into the irrigation water and also regularly monitor to ensure that treated water is being uniformly distributed across the field. Flow rates through metering devices and distribution of this product can vary with water temperature and speed of water flow across the field.

9. Uniform distribution of irrigation water treated with this product is the sole responsibility of the applicator and is required to avoid crop injury, lack of herbicide effectiveness, or illegal pesticide residues in the crop.
10. If you have questions about calibration, contact your state extension service specialists, equipment manufacturers or other experts.

Use Restriction for Flooded Basin Irrigation

- Do not connect an irrigation system used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.

SPRAY DRIFT

Aerial Applications:

- Do not release spray at a height greater than 10 feet above the crop canopy, unless a greater application height is necessary for pilot safety.
- Applicators are required to use a medium or coarser droplet size (ASABE S572.1).
- Do not apply when wind speeds exceed 15 mph at the application site. If the wind speed is greater than 10 mph, the boom length must not exceed 65% of the wingspan for fixed wing aircraft or 75% of the rotor diameter for helicopters. Otherwise, the boom length must not exceed 75% of the wingspan for fixed wing aircraft or 90% of the rotor diameter for helicopters.
- Applicators must use one-half swath displacement upwind at the downwind edge of the field.
- Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- Do not apply during temperature inversions.

Ground Boom Applications:

- Applicators must only apply with the nozzle height recommended by the manufacturer, but no more than 3 feet above the ground or crop canopy.
- Applicators are required to use a medium or coarser droplet size (ASABE S572.1).
- Do not apply when wind speeds exceed 15 mph at the application site.
- Do not apply during temperature inversions.

Boom-less Ground Applications:

- Applicators are required to use a medium or coarser droplet size (ASABE S572.1) for all applications.
- Do not apply when wind speeds exceed 15 mph at the application site.
- Do not apply during temperature inversions.

SPRAY DRIFT ADVISORIES

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT. BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

Boom-less Ground Applications

Setting nozzles at the lowest effective height will help to reduce the potential for spray drift.

Handheld Technology Applications

Take precautions to minimize spray drift.

IMPORTANCE OF DROPLET SIZE

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

Controlling Droplet Size – Aircraft

Adjust Nozzles - Follow nozzle manufacturer's recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.

Controlling Droplet Size – Ground Boom

- Volume - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- Pressure - Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- Spray Nozzle - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

BOOM HEIGHT – Ground Boom

For ground equipment, the boom should remain level with the crop and have minimal bounce.

RELEASE HEIGHT - Aircraft

Higher release heights increase the potential for spray drift.

SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

TEMPERATURE AND HUMIDITY

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

TEMPERATURE INVERSIONS

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.

WIND

Drift potential generally increases with wind speed. **AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.**

Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

ADDITIVES

Spray adjuvants have little or no influence on performance of this product when applications are made prior to weed emergence. However, several tank-mixes with this product require adjuvants to improve burndown of emerged weeds. Therefore, surfactants, liquid fertilizer (28%, 30% or 32% urea ammonium nitrate (UAN) or ammonium sulfate (AMS) or crop oil concentrate (COC) may be used with this product tank mixed applied pre-plant, pre-emergence or early post-emergence to the crop. Follow the adjuvant directions for use on the label of the tank-mix partner.

TANK-MIXING INFORMATION

This product may be applied in a tank-mix or a sequential application with other herbicides registered for use in a given crop. Refer to the companion label for weeds controlled in addition to this product.

When using tank-mixtures or sequential applications with this product, always read the companion product label(s) to determine the specific use rate by soil types, weed species and weed or crop growth stage. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank-mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank-mixture.

Tank-Mixture With Other Product(s)

If compatibility with tank-mix partner is not known, perform a mixing test to check the compatibility of this product with the tank-mix partners.

Mixing Instructions

1. Fill tank one-half to three-fourths full with clean or liquid fertilizer and agitate. Prior to mixing this product or tank-mixtures of this product in liquid fertilizer, refer to appropriate label sections for use in liquid fertilizer, application instructions and compatibility determinations.

Note: This product will not mix in high salt formulation fertilizers such as 10-34-0. When utilizing high salt formulation fertilizers as the spray carrier, use one of the following:

- a) Pre-slurry this product in water prior to adding to the tank. Use 1:1 ratio of water to this product.
- b) Add water to fertilizer solution prior to adding this product. The amount of water should be equal or greater than the amount of this product to be used.

2. This Product Alone

When using this product alone, add this product to partially filled tank while agitating and then fill the remainder of the tank with water or liquid fertilizer.

3. This Product in Tank-Mixture

Add the tank-mixture products in the order listed below prior to adding this product.

- a) Wettable Powder (WP) formulations - Make a slurry of the WP in water (1:2 ratio). Add the slurry slowly into the partially filled tank while agitating.
- b) Dry Flowable (DF)/Water Dispersible Granule (WDG) formulations - Add the granules to the partially filled tank while agitating. Make a slurry of the granules in water before adding to liquid fertilizer.
- c) Flowable (SC) formulations: Add the SC formulation to the partially filled tank while agitating.
- d) Add this product to the partially filled tank while agitating.
- e) Water Soluble Concentrate (WSC) formulations: Add the WSC formulation to the partially filled tank while agitating.
- f) Emulsifiable Concentrate (EC) formulations: Add the EC formulation to the partially filled tank while agitating.

After complete mixing, add this product to the tank.

Fill the remainder of the tank with water or liquid fertilizer while agitating.

4. Thorough and continuous sprayer-tank agitation must be maintained during mixing and spraying of this product. If the spray mixture is allowed to settle for any period of time, thorough agitation is essential to re-suspend the mixture before spraying is resumed.

CLEANING SPRAY EQUIPMENT

Clean application equipment thoroughly by using a strong detergent or commercial spray cleaner according to the manufacturer's directions and then triple rinsing the equipment before and after applying this product.

USE RESTRICTIONS

- Do not exceed the maximum labeled rate for any soil type.
- In the event of a crop loss due to adverse weather conditions or other reasons, do not plant any crop not registered for a pre-plant incorporated application of this product in the same year due to possible adverse effects (see "CROPS" section). If replanting of any crop registered for pre-plant incorporated application of this product is necessary, do not work the soil deeper than the treated zone.

NOTE: Refer to the "CROPS" section for crop specific pre-harvest intervals (PHI) and feeding and grazing restrictions.

CROP ROTATION

- Use of this product in accordance with label directions is expected to result in normal growth of rotational crops in most situations. However, various environmental and agronomic factors such as arid conditions make it impossible to eliminate all risks associated with the use of this product and, therefore, rotational crop injury is always possible. Soil characteristics and environmental conditions which may contribute to crop stress that may be accentuated by the use of this product include: coarse soils, compaction, high salinity, eroded knolls/hilltops, cold and/or wet soils, drought and heavy rainfall soon after application.
- When this product is used in tank-mix or sequential combinations, refer to label(s) of other herbicide(s) for additional rotational crop restrictions.
- After harvest of furrow-irrigated crops, thoroughly mix the soil by plowing or deep disking to minimize the potential for herbicide carryover to the following crop.
- Restrictions for rotational cropping after the use of this product are dependent on the application use rate of this product in the primary crop. Read the following restrictions to determine the rotational crops for their specific situation according to application use rate. For field and row crops, see the section following.

CROP ROTATION RESTRICTIONS AND LIMITATIONS

Rotational Crop Restrictions Following Applications of This Product to Grove, Orchard and Vineyard Crops

In the growing season after application of this product to bearing fruit and nut trees, Bushberries, Caneberries or Grapes, plant only those crops for which this product is labeled for pre-plant incorporated treatment or crop injury may occur. Do not rotate to other crops (except for fruit and nut trees, Bushberries, Caneberries or Grapes) for 24 months after application of this product.

Rotational Crop Restrictions Following Applications of This Product to Field and Row Crops

Rotational Crops	States	Rate of This Product (Qts./Ac.)	Rainfall + Irrigation Amount (inches) Between Application of This Product and Rotational Crop Planting	Rotational Planting Interval (Months) After Application of This Product	
				Spring	Fall
All crops labeled for pre-plant incorporated application	ALL	> 2.0	-	The next growing season	
All other crops labeled for pre-plant incorporated application				24	
Cotton, Edible beans, Fruiting vegetables, Lentils, Peas, Peanuts, Safflower, Soybeans, Sunflower (and other Group 20B Oilseeds), Vegetable soybean	ALL	≤ 2.0	-	0	
Alfalfa stand establishment	ALL	≤ 2.0	> 12	6	
Barley*, Wheat*	Colorado, Idaho, Kansas, Montana, Nebraska, Nevada, Oregon, Utah, Washington, Wyoming	< 1.6	-	4	
		> 1.6 but ≤ 2.0	> 12	4	
	All Other States	≤ 2.0	> 12	12	14
		≤ 2.0	< 12	12	14
Proso millet, Grain sorghum, Annual or Perennial grass crops or mixtures	Minnesota, North Dakota, South Dakota	≤ 2.0	-	18	20
	All Other States	≤ 2.0	> 20	10	12
Red beets**, Spinach**	ALL	≤ 2.0	> 12	12	14
			< 12	18	20
Sugar beets**	Nebraska and counties Goshen, Laramie, Platte in Wyoming	≤ 1.3	> 12 and only if cropland is under center pivot irrigation	10	14
		> 1.3 but ≤ 2.0		12	14
		≤ 2.0	< 12	18	20
	All other states and other counties in Wyoming	≤ 2.0	> 12	12	14
All Other Crops	ALL	≤ 2.0	> 12	12	12
			< 12	18	20

* In dryland areas and/or areas where irrigation is necessary to produce the crop, do not plant Winter wheat or Barley as a follow crop if crop failure/destruction occurs and land is fallowed during the Summer.
**To ensure thorough mixing of soil before planting Red beets, Spinach and Sugar beets, plow the land using a moldboard plow to a depth of 12 inches.

USE AREA



CROPS

The use of this product may result in crop injury, loss or damage including but not limited to agronomic, cultural, mechanical and environmental. Numerous risks of loss or damage to certain crops may be associated with the use of this product even when directions for use are completely followed. Before deciding to apply this product, take all such risks into consideration before deciding to apply the product.

If suitability of this product is not known, test on a small portion of the target crop to determine if damage is likely to occur. Only use this product to the extent that the benefit of use of this product outweighs the potential injury to the grower's crop.

In addition, many factors can affect crop growth and/or yield including but not limited to insects, diseases, weed competition, poor seed quality, improper planting depth, mechanical cultivation, poor weather (such as freezing or excessive wind, rain heat or cold), lack of excessive moisture, crusting, fertility or hardpans. Risk of loss or damage to crops may be associated with the use of this product and contribute to poor stands due to failure of crop to emerge, swelling of roots or other below ground plant parts, less vigorous plant growth and development and reduction in yield potential. This product may also cause injury to sensitive rotational crops.

AFRICAN MARIGOLD

Methods of Application, Timing and Rates

This product may only be used in African marigold production grown for the purpose of lutein and zeaxanthin extraction. This product may be applied by ground, chemigation or on dry bulk fertilizer.

Plant African marigold one-fourth to three-fourths inch deep and completely cover with soil. Make sure that crop seeds are below the tilled soil surface area.

This product may be applied in a single application or sequentially with an interval of 30 days or more. Uniformly apply this product up to 2.1 quarts per acre as a broadcast treatment before target-weed germination.

Pre-plant Incorporated: Apply this product within 60 days of planting and incorporate.

Pre-emergence: Apply this product at planting or up to 2 days after planting, but before crop emerges. Apply to a seedbed that is firm and free of clods.

Post-emergence: Apply this product over-the-top post-emergence after crop emergence for residual weed control.

Post-emergence Directed: Apply this product as a post-emergence directed spray on the soil at the base of established plants, beneath plants, and between rows for residual weed control. Avoid direct contact with foliage or stems.

Post-emergence and post-emergence directed treatments are most effective in controlling weeds when adequate rainfall or overhead irrigation is received after application. If sufficient rainfall or irrigation does not occur to activate the herbicide, mechanically incorporate. Apply this product before weeds germinate or after clean cultivation to remove existing weeds. Alternatively, apply post-emergence herbicide(s) to control emerged weeds before application of this product.

Use Precautions

- Avoid overlapping spray patterns because crop injury can occur.
- Avoid heavy residue on soil surface from previous year's crops.
- Avoid applying this product to open furrows with exposed seed.

Use Restrictions on African Marigold

- Do not apply more than 2.1 quarts of this product per acre in a single application.
- Do not apply more than a maximum cumulative total of 4.2 quarts of this product per acre per year.
- Do not feed forage or graze livestock in treated fields.

ALFALFA (GROWN FOR FORAGE, HAY OR SEED PRODUCTION)

Methods of Application, Timing and Rates

Apply this product by ground, air, chemigation, flooded basin and gravity flow irrigation systems or on dry bulk fertilizers.

Established Alfalfa for Forage/Hay and Seed Production (Defined as Alfalfa planted in the Fall or Spring that has gone through a first cutting/mowing): Apply this product uniformly at a broadcast rate of 1.1 to 4.2 quarts per acre before weed germination in the Fall after the last cutting/mowing, during Winter dormancy, in the Spring or between cuttings. Apply in single application or in sequential applications before Alfalfa reaches 6 inches in regrowth.

Seedling Alfalfa (Defined as Alfalfa planted in the Fall or Spring which has NOT gone through a cutting/mowing/seed harvest): Uniformly apply this product at a broadcast rate of 0.5 to 1 quart per acre before weed germination. Applications can be made when seedling Alfalfa has reached the 2nd trifoliate stage of growth. Apply before Alfalfa reaches 6 inches in growth.

Alfalfa Stand Establishment: Apply this product at a broadcast rate of 0.5 to 0.75 quart per acre as a pre-plant incorporated or pre-emergence treatment in direct-seeded Alfalfa. Some crop stand reduction and stunting may occur with the use of this product, however, reduced weed competition will allow establishment of a quality stand. Use the lower rates on coarse-texture soil or in lower rainfall areas (receiving less than 20 inches of rainfall and irrigation a year).

- Pre-plant incorporated – Uniformly incorporate this product into the top 2 to 3 inches of the final seedbed prior to planting.
- Pre-emergence – Apply directly after drill seeding Alfalfa. Plant Alfalfa into a seedbed that is firm and free of clods.

Chemigation Applications

This product may be applied through sprinkler irrigation systems. Follow all chemigation directions, special instructions and precautions found in "APPLICATION INSTRUCTIONS" section of this label.

Flood, Flooded Basin and Gravity Flow Irrigation Systems: This product may be applied in flood, flooded basin and gravity flow irrigation systems. Follow all directions, special instructions and precautions for flood, flooded basin and gravity flow irrigation systems found in "CHEMIGATION APPLICATION (VIA FLOOD, FLOODED BASIN OR GRAVITY FLOW IRRIGATION SYSTEMS)" section of this label.

Use Precautions on Alfalfa

- Some stunting and chlorosis of Alfalfa may occur with post-emergence applications.
- Applications made after Alfalfa exceeds 6 inches in height may result in poor weed control due to possible reduced spray coverage to the soil.

Use Restrictions on Alfalfa

- Do not exceed 4.2 quarts of this product per acre in a single application.
- For multiple applications, do not apply more than a maximum cumulative total of 4.2 quarts of this product per acre in any one crop season.
- Pre-harvest Interval (PHI) for Alfalfa forage or hay: 14 days
- Pre-harvest Interval (PHI) for Alfalfa seed: 90 days.

ARTICHOKE

Methods of Application, Timing and Rates

This product may be applied by ground or air.

This product must be applied pre-transplant at least 1 to 2 days before transplanting Artichoke. For a single application, uniformly apply this product up to 1.5 quarts per acre as a broadcast spray to the soil surface at least 60 days before harvest. Alternatively, uniformly apply 3.1 to 8.2 pints per acre as a broadcast spray to the soil surface at least 200 days before harvest.

Use Restrictions on Artichoke

- Do not apply post-emergence over-the-top of or to foliage of Artichoke because severe injury may occur.
- Do not apply more than 1.5 quarts of this product per acre per season when using the 60 day pre-harvest interval.
- If more than 1.5 quarts (up to 4.1 qts.) of this product per acre is applied, do not harvest Artichoke until 200 days after application.
- Do not apply more than 4.1 quarts of this product per acre per season.
- Do not feed forage or graze livestock in treated fields.

ASPARAGUS

Methods of Application, Timing and Rates

- This product may be applied by ground or air.
- Apply this product only to established Asparagus or to newly planted crown Asparagus. Do not apply to newly seeded Asparagus. When applying to newly-planted crown Asparagus, assure crowns are fully covered with 2 to 4 inches of soil.
- With a single application, uniformly apply this product to Asparagus up to 4.1 quarts per acre as a broadcast spray to the soil surface at least 14 days before the first spear harvest or after seasonal harvest is complete. Apply before spear emergence or remove emerged spears before making the application.
- If Asparagus is grown on sandy soils, do not apply this product at more than 1.2 quarts per acre.

Use Restrictions on Asparagus

- Do not apply post-emergence over-the-top of emerged spears or severe injury may occur.
- Do not apply more than 4.1 quarts of this product per acre per season.
- Pre-harvest Interval (PHI) - 14 days.
- Do not feed forage or graze livestock in treated fields.
- Do not apply by chemigation methods.

BEARING AND NON-BEARING BUSHBERRIES AND CANEBERRIES

This product may be applied in the following individual crops within the Bushberry and Caneberry crop groups:

BUSHBERRY CROP GROUP		
Aronia berry	Elderberry	Lingonberry
Blueberry (highbush)	European barberry	Native currant
Blueberry (lowbush)	Gooseberry	Salal
Buffalo currant	Honeysuckle (edible)	Sea buckthorn
Chilean guava	Huckleberry	
Cranberry (highbush)	Jostaberry	
Currant (black, red)	Juneberry (Saskatoon berry)	

CANEBERRY CROP GROUP		
Blackberry	Loganberry	Raspberry (black, red, wild)

Methods of Application, Timing and Rates

- This product may be applied by ground, chemigation or flood, flooded basin and gravity flow irrigation systems.
- This product may be applied in a single application or sequentially with an interval of 30 days or more.
- Apply this product at 2.0 to 6.3 quarts per acre per application depending on the grower's weed control program, level of weed infestation, and desired use strategy.

Ground Application (Bearing): This product may be applied surface incorporated or (surface) pre-emergence. Apply this product as a broadcast or banded treatment using ground equipment before weed germination. Apply spray directly to the ground beneath the bushes or canes and/or in areas between rows or trellised rows. Do not apply over-the-top of bushes, canes or primocanes with leaves, buds or fruit. Contact by the spray mixture with leaves, shoots, or buds may cause injury.

This product may also be broadcast applied to (wild) lowbush Blueberry after pruning in Fall or Spring but before new growth/emergence in Spring or broadcast applied over-the-top of dormant bushes before new growth/emergence in Spring. DO NOT apply broadcast over-the-top of (wild) lowbush Blueberry if new spring growth/emergence is imminent.

Ground Application (Nonbearing): This product may be applied for pre-plant incorporated, pre-plant surface, surface incorporated or pre-emergence weed control in nonbearing Bushberry and Caneberry crops. This product may be applied before transplanting or applied after transplanting and the establishment of the nonbearing crops.

Pre-plant Surface - Before transplanting, uniformly apply this product with ground equipment. Avoid root contact with treated soil when placing transplants into the hole or injury may occur.

Pre-plant Incorporated - Uniformly apply this product before transplanting and before weeds germinate. Incorporate this product to a depth of 1 to 2 inches. Application and incorporation must be made before transplanting to avoid mechanical injury to the crop. Avoid root contact with treated soil when placing transplants into the hole or injury may occur.

Pre-emergence - Application may be in a band or broadcast.

Chemigation Application: This product may be applied through sprinkler irrigation and drip irrigation systems. Follow all directions, special instructions, and restrictions for chemigation found in the "APPLICATION INSTRUCTIONS" section. Do not apply irrigation water treated with this product over-the-top of bushes, canes or primocanes with leaves, buds or fruit. Contact with leaves, shoots or buds by spray mixture may cause injury.

Flood, Flooded Basin, and Gravity Flow Irrigation Systems Application: This product may be applied in flood, flooded basin, and gravity flow irrigation systems. Follow all directions, special instructions, and restrictions for flood, flooded basin and gravity flow irrigation systems found in the "APPLICATION INSTRUCTIONS" section of this label.

Use Restrictions on Bearing and Non-bearing Bushberries and Caneberries

- Do not apply by air.
- Do not apply more than 6.3 quarts of this product per acre per year.
- Do not feed forage or graze livestock in treated field or planting.
- Pre-harvest Interval (PHI) - 30 days
- Do not apply to newly seeded nursery stock.
- Not for use in California except as directed in 24(c) Special Local Need labeling.

BEARING AND NON-BEARING FRUIT AND NUT TREES

This product may be applied in the following individual crops within the Fruit tree and Tree nut crop groups:

CITRUS FRUITS CROP GROUP		
Australian desert lime Australian finger lime Australian round lime Brown River finger lime Calamondin Citron Citrus hybrids Grapefruit Japanese summer grapefruit	Kumquat Lemon Lime Mandarin (Mediterranean) Mount white lime New Guinea wild lime Orange (Sour, Sweet) Pummelo Russel River lime	Satsuma mandarin Sweet lime Tachibana orange Tahiti lime Tangelo Tangerine (mandarin) Tangor Trifoliolate orange Uniq fruit
POME FRUITS CROP GROUP		
Apples Azarole Crabapple Loquat	Mayhaw Medlar Pear Pear (Asian)	Quince Quince (Chinese, Japanese) Tejocote

STONE FRUITS CROP GROUP		
Apricot Apricot (Japanese) Aprium Capulin Cherries (Black, Nanking, Sweet, Tart) Jujube (Chinese)	Nectarine Peach Plum Plum (American, Beach, Canada, Cherry, Chickasaw, Damson, Japanese, Klamath, Prune) Plumcot	Pluot Sloe
OTHER FRUIT TREES		
Date palm (non-bearing)* Fig (non-bearing)*	Juneberry Olive	Pomegranate
*Not for use in California except as directed in 24(c) Special Local Need labeling.		

TREE NUTS CROP GROUPING		
African nut tree Almond Beech nut Brazil nut Brazilian pine Bunya Bur oak Butternut Cajou nut Candle nut Cashew Chestnut Chinquapin	Coconut Coquito nut Dika nut Gingko Guiana chestnut Hazelnut (Filbert) Heartnut Hickory nut Japanese horse chestnut Macadamia nut Mongongo nut Monkey pot Monkey puzzle nut	Okari nut Pachira nut Peach palm nut Pecan Pequi Pili nut Pine nut Pistachio Sapucaia nut Tropical almond Walnut (black, English) Yellowhorn

Methods of Application, Timing and Rates

- This product may be applied by ground, chemigation or flood, flooded basin and gravity flow irrigation systems.
- This product may be applied either in a single application or sequentially with an interval of 30 days or more.
- Apply this product at the rate of 2.0 to 6.3 quarts per acre depending on the grower's weed control program, level of weed infestation, and desired use strategy, but not more than a total of 4.2 quarts per acre per year in Olive, Pome, Pomegranate, and stone fruit trees, and not more than a total of 6.3 quarts per acre per year in Citrus trees, Nut trees, and non-bearing Date palm and non-bearing Fig trees.

Ground Applications (Bearing): This product may be applied surface-incorporated or surface pre-emergence. Apply this product as a broadcast or banded treatment using ground equipment before weed germination. Apply the spray directly to the ground beneath the trees and/or in areas between rows. Do not apply over-the-top of trees with leaves, buds or fruit. Contact by the spray mixture with leaves, shoots, or buds may cause injury or result in illegal pesticide residues on fruit.

Ground Application (Nonbearing): This product may be applied for pre-plant incorporated, pre-plant surface, surface incorporated or pre-emergence weed control in several non-bearing fruit and nut tree crops. This product may be used before or after transplanting non-bearing crops.

Pre-plant Surface - Before transplanting, uniformly apply this product with ground equipment. Avoid root contact with treated soil when placing transplants into the hole or injury may occur.

Pre-plant Incorporated - Uniformly apply this product before transplanting but before weeds germinate. Incorporate this product to a depth of 1 to 2 inches. Application and incorporation must be made before transplanting to avoid mechanical injury to the crop. Avoid root contact with treated soil when placing transplants into the hole or injury may occur.

Pre-emergence - Application may be in a band or broadcast.

Chemigation Application: This product may be applied through sprinkler and drip irrigation systems. Follow all directions, special instructions, and restrictions for chemigation found in the "APPLICATION INSTRUCTIONS" section. Do not apply irrigation water treated with this product over top of trees with leaves, buds or fruit. Contact with leaves, buds or shoots by spray mixture may cause injury or result in illegal pesticide residues on fruit.

Flooded Basin Irrigation Systems: This product may be applied in flood, flooded basin, and gravity flow irrigation systems. Follow all directions, special instructions, and restrictions for flood, flood basin, and gravity flow irrigation systems found in the "APPLICATION INSTRUCTIONS" section of this label.

Use Restrictions on Bearing and Non-bearing Fruit and Nut Trees

- Do not apply by air.
- Do not apply to newly seeded nursery stock.
- Do not apply more than 4.2 quarts of this product per acre per year in Olive, Pome, Pomegranate, and Stone fruits.
- Do not apply more than 6.3 quarts of this product per acre per year in Citrus trees, Nut trees, non-bearing Date palm and non-bearing Fig trees.
- Pre-harvest Interval (PHI) for Citrus fruit: 1 day.
- Pre-harvest Interval (PHI) for Olive, Pome, Pomegranate, Stone fruits, and Tree nuts: 60 days.
- Do not feed forage or graze livestock in treated groves or orchards.

BEARING AND NON-BEARING GRAPES

Methods of Application, Timing and Rates

- This product may be only applied by ground, chemigation, or flood, flooded basin, and gravity flow irrigation systems.
- This product may be applied in a single application or sequentially with an interval of 30 days or more.
- Uniformly apply this product in Grape vineyards at 3.2 to 6.3 quarts per acre depending on the grower's weed control program, level of weed infestation, and desired use strategy.
- This product may be applied anytime after Fall harvest, during Winter dormancy, and in Spring.

Ground Application (Bearing): This product may be applied surface incorporated or (surface) pre-emergence. Apply this product broadcast or banded using ground equipment before weed germination. Apply spray directly to the ground beneath grape vines and/or in areas between rows. Do not apply over-the-top of Grape vines with leaves, buds or fruit. Contact with leaves, shoots or buds by the spray mixture may cause injury or result in illegal pesticide residues on fruit.

Ground Application (Nonbearing): This product may be applied for pre-plant incorporated, pre-plant surface, surface incorporated, or pre-emergence weed control in nonbearing vineyards. This product may be used before or after transplanting.

Pre-plant Surface - Before transplanting, uniformly apply this product with ground equipment. Avoid root contact with treated soil when placing transplants into the hole or injury may occur.

Pre-plant Incorporated - Uniformly apply this product before transplanting but before weeds germinate. Incorporate this product to a depth of 1 to 2 inches. Application and incorporation must be made before transplanting to avoid mechanical injury to the crop. Avoid root contact with treated soil when placing transplants into the hole or injury may occur.

Non-Bearing Grapes

Newly Transplanted and One Year Old Grapevines

- Do not allow spray to contact buds or leaves or leaf distortion may occur.
- Do not apply to newly transplanted vines until ground has settled and no cracks are present.

Chemigation Application: This product may be applied through sprinkler irrigation and drip irrigation systems. Follow all directions, special instructions, and restrictions for chemigation found in the "APPLICATION INSTRUCTIONS" section. Do not apply irrigation water treated with this product over-the-top of Grape vines with leaves, buds or fruit. Contact with leaves, shoots or buds by spray mixture may cause injury or result in illegal pesticide residues on fruit.

Flood, Flooded Basin, and Gravity Flow Irrigation Systems: This product may be applied in flood, flooded basin, and gravity flow irrigation systems. Follow all directions, special instructions, restrictions and precautions for flood, flood basin, and gravity flow irrigation systems found in the "APPLICATION INSTRUCTIONS" section of this label.

Use Restrictions on Bearing and Non-bearing Grapes

- Do not apply over-the-top of Grape vines with leaves, buds or fruit.
- Do not apply by air.
- Do not apply more than 6.3 quarts per acre per year.
- Pre-harvest Interval (PHI): 90 days.
- Do not feed forage or graze livestock in treated vineyards.

BEARING AND NON-BEARING SMALL FRUITS CLIMBING VINES

This product may be applied in the following small fruit climbing vines:

Amur River grapes Gooseberry Fuzzy Kiwi fruit	Hardy Kiwi fruit Maypop Schisandra berry
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Methods of Application, Timing and Rates

- This product may be only applied by ground, chemigation, flood, flooded basin, and gravity flow irrigation systems.
- This product may be applied in a single application or sequentially with an interval of 30 days or more.
- Uniformly apply this product in small fruit climbing vines at 3.2 to 4.2 quarts per acre depending on the grower's weed control program, level of weed infestation, and desired use strategy.
- This product may be applied any time after fall harvest, during winter dormancy, and in spring.

Ground Application: This product may be applied surface incorporated or (surface) pre-emergence. Apply this product broadcast or banded using ground equipment before weed germination. Apply spray directly to the ground beneath small fruit climbing vines and/or in areas between rows. Do not apply over-the-top of small fruit climbing vines with leaves, buds, or fruit. Contact with leaves, buds, or fruit by the spray mixture may cause injury or result in illegal pesticide residues on fruit.

Chemigation Application: This product may be applied through sprinkler irrigation and drip irrigation systems. Follow all directions, special instructions, and restrictions for chemigation found in the "APPLICATION INSTRUCTIONS" section. Do not apply irrigation water treated with this product over-the-top of small fruit climbing vines with leaves, buds or fruit. Contact with leaves, buds or fruit by the spray mixture may cause injury or result in illegal pesticide residues on fruit.

Flood, Flooded Basin, and Gravity Flow Irrigation Systems: This product may be applied in flood, flooded basin, and gravity flow irrigation systems. Follow all directions, special instructions, and restrictions for flood, flood basin, and gravity flow irrigation systems found in the "APPLICATION INSTRUCTIONS" section of this label.

Use Restrictions on Bearing and Non-bearing Small Fruits Climbing Vines

- Do not apply over-the-top of small fruit climbing vines with leaves, buds or fruit.
- Do not apply by air.
- Do not apply more than 4.2 quarts per acre per year.
- Pre-harvest Interval (PHI): 60 days.
- Do not feed forage or graze livestock in treated vines.
- Do not apply this product when impregnated onto dry bulk fertilizer in small fruit climbing vines.

BRASSICA HEAD AND STEM VEGETABLES

This product may only be applied to the following Brassica head and stem vegetables:

Broccoli Chinese broccoli Brussels sprouts	Cabbage Cauliflower Cavalo broccolo	Chinese cabbage (napa) Chinese mustard cabbage Kohlrabi
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Methods of Application, Timing and Rates

- This product may be applied by ground or air.
- Uniformly apply this product to Brassica head and stem vegetables by ground or air as a pre-plant surface application before transplanting or as a post-emergence application.
- Uniformly apply this product only by ground as a post-emergence directed application to transplanted or established direct-seeded Brassica head and stem vegetables.
- Do not apply before direct-seeded Brassica head and stem vegetables.
- With a single application, apply up to 1.05 quarts per acre of this product to Brassica head and stem vegetables as a broadcast or banded spray to the soil surface at pre-transplant time, as a broadcast post-emergence foliar spray, or as a post-emergence directed spray between vegetable rows. Apply post-emergence or post-emergence directed to 2-leaf to 4-leaf vegetable transplants at 1 to 3 days after transplanting, or to the 2-leaf to 4-leaf stage of direct seeded vegetable plants.

- Apply this product as a post-emergence directed spray on the soil, beneath plants, and between vegetative rows. Do not spray foliage or stems because crop injury will occur. Roots of transplants must be established. Following the post-emergence directed application if sufficient rainfall or irrigation does not occur, mechanically incorporate to activate the herbicide. Apply this product before weed germination. Emerged weeds will not be controlled by this treatment.

Use Rates:

Pre-Transplant, Post-Emergence, Post-Emergence Directed Applications	
Soil Texture	Broadcast Rate (Qts./Acre)
Coarse	0.5 to 0.75
Medium	0.75 to 1.05
Fine	0.75 to 1.05

Use Precautions

- Avoid root contact with soil treated with this product when placing transplants into furrow or hole or crop injury may occur.
- Avoid overlapping spray patterns because crop injury can occur.

Use Restrictions on Brassica Head and Stem Vegetables

- Do not apply via chemigation methods.
- Do not apply more than 1.05 quarts per acre per season.
- Pre-harvest Interval (PHI) for Broccoli: 60 days.
- Pre-harvest Interval (PHI) for Cabbage and other Brassica head and stem vegetables: 70 days.
- Do not feed forage or graze livestock in treated fields.
- Not for use in California except as directed in 24(c) Special Local Need labeling.

CARROTS

Methods of Application, Timing and Rates

This product may be applied by ground, air or chemigation.

Pre-emergence Applications: Make a single broadcast application by ground or air or by chemigation using 1.0 quart of this product per acre as a post-plant treatment prior to emergence of the crop and before weed emergence. Apply a pre-emergence treatment within 2 days after planting.

Lay-by Application: This product may be applied only by ground equipment at lay-by (last mechanical cultivation) at 1.0 quart per acre as a directed spray to the soil between rows. Apply this product prior to weed emergence. Emerged weeds will not be controlled by this treatment. Do not allow the spray to contact Carrot plants or injury may occur. Do not apply lay-by applications by chemigation or by air.

Chemigation Application: This product may be applied through sprinkler irrigation systems. Follow all directions, special instructions, and restrictions for chemigation found in the "APPLICATION INSTRUCTIONS" section. Do not allow irrigation water treated with this product to contact Carrot plants. Do not apply tank-mixtures through any type of irrigation system unless the label instructions on chemigation of all products are followed.

Use Restrictions on Carrots

- Do not apply more than 1.0 quart of this product per acre per season.
- Pre-harvest Interval (PHI): 60 days.
- Do not feed forage or graze livestock in treated fields.
- Do not apply as a broadcast spray over-the-top of Carrots or crop injury may result.
- Do not apply lay-by applications by chemigation or by air.

CARROTS GROWN FOR SEED PRODUCTION

Methods of Application, Timing and Rates

This product may only be applied by lay-by with ground equipment.

Last Cultivation (Lay-by): Apply this product following the last normal mechanical cultivation (lay-by) at the rate of 0.5 to 2.0 quarts of this product per acre (on a broadcast basis). Uniformly apply as directed spray to the soil between rows.

Do not allow the spray to contact Carrot plants or injury may occur. Use protective shields to avoid contact with Carrot foliage. Use calibrated nozzles and equipment.

Lay-by applications can be applied to Carrots previously treated with herbicide(s) registered in/on Carrots. Consult the label(s) of the herbicide(s) for directions for use, rates to be used and precautions or restrictions for use in Carrots and for rotational crops.

Use Restrictions on Carrots Grown For Seed Production

- Do not apply as a broadcast spray over-the-top of Carrots or crop injury may result.
- Do not apply lay-by applications by chemigation or by air.
- Pre-harvest Interval (PHI) for Carrots seed: 60 days.
- Do not feed forage or graze livestock in treated fields.
- Do not harvest Carrots for food or feed use.

Special Use Restrictions on Carrots Grown For Seed Production

The pesticide applicator, the producer of the crop and the seed conditioner must be aware that use of this product according to this labeling is deemed a non-feed/non-food use. If the applicator of this pesticide is not the producer, the applicator should provide a copy of this labeling to the producer of the crop. Producers of this crop who use this product or cause the product to be used on a field they operate, should provide a copy of this pesticide label to the seed conditioner.

Consequently, no portion of this Carrot seed crop, including but not limited to green chop, hay, pellets, meal, whole seed, cracked seed, roots, bulbs, foliage and seed screenings, may be used or distributed for food or feed purposes.

Processed Carrot seed from a field treated with this product must bear a specific tag or conspicuous container labeling or if shipped in bulk, on the shipment invoice or bill of lading, with the following statement: "Not for human consumption or animal feed." All seed screenings from seed processing shall be disposed of in such a manner that the screenings cannot be distributed or used for human food or animal feed purposes.

The seed conditioner shall keep records of screening disposal for 3 years from the date of disposal and shall furnish the records immediately upon request. Conditioner disposal records shall consist of documentation of on-farm disposal, disposal at a controlled dumpsite, incinerator, composter or other equivalent disposal site and shall include the lot numbers, amount of material disposed of, the grower(s) and the date of disposal.

CORN

This product may be applied to the following types of Corn:

Field corn Field seed corn	Fresh sweet corn Popcorn	Popcorn seed
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Methods of Application, Timing and Rates

- This product may be applied by ground, air, chemigation or on dry bulk fertilizer.
- This product may be applied in conventional, minimum or no-till as a pre-emergence, post-emergence or post-emergence incorporated (CULTI-SPRAY) application in Field corn.
- This product may be applied in conventional tillage as a pre-emergence or post-emergence application in Field corn, Field seed corn, Popcorn, Popcorn seed corn, and fresh Sweet corn.

Note: Regardless of tillage system, plant Corn at least 1.5 inches deep and completely cover with soil.

In conventional tillage systems, plant into a seedbed that is firm and free of clods and trash. Use only where adequate tillage is practiced to provide good soil coverage of the Corn seed.

In no-till systems, utilize a no-till planter that is capable of planting through crop residue. The use of no-till planters under conditions that do not allow good soil coverage of the Corn seed can result in reduced crop stand or injury if this product contacts the germinating Corn seed. Check equipment to ensure good seed coverage.

Pre-emergence Application: Apply this product after planting but before weeds germinate and crop emerges.

Post-emergence Application: Apply this product post-emergence until Field corn is 30 inches tall (20 to 24 inches tall for Field seed corn, Popcorn, Popcorn seed, and Fresh sweet corn) or in the V8 growth stage, whichever is more restrictive. If the Corn canopy prevents applications from reaching the soil, use drop nozzles and apply as directed spray.

Culti-Spray Application: In addition to the weeds listed in the "WEEDS CONTROLLED" table, this product will control the following weeds in Corn with CULTI-SPRAY application - Wild proso millet and Shattercane.

Apply this product alone or this product plus Atrazine when Field corn is at least 4 inches tall until last cultivation (lay-by). This product plus Atrazine must be applied before Field corn reach 12 inches in height. See specific directions for (CULTI-SPRAY) application under the section "TIMING OF APPLICATION" on this label.

Do not apply more than 1.2 pounds of Atrazine a.i. per acre as specified on the Atrazine label. Under situations of low rainfall or soil moisture when deep germinating weeds such as Shattercane or Field sandbur are anticipated, mechanical incorporation will provide best results. If cultivation is needed after application and incorporation of this product, the depth of cut should be no deeper than the depth of cut used to incorporate.

Chemigation Application: This product may be applied through sprinkler irrigation systems. Follow all directions, special instructions, precautions and restrictions for chemigation found in the "APPLICATION INSTRUCTIONS" section.

Use Rates:

Pre-Emergence, Post-Emergence Applications			
Soil Texture	Organic Matter		
	< 1.5% (Qts./Acre)	1.5 to 3% (Qts./Acre)	> 3% (Qts./Acre)
Coarse	1.0	1.5	1.5
Medium	1.5	1.5	2.0
Fine	1.5	2.0	2.0

Culti-Spray Applications - Field Corn Only		
Soil Texture	Southern States* (Qts./Acre)	Northern States* (Qts./Acre)
Coarse	0.75	1.0
Medium	1.0	1.5
Fine	1.5	1.5

*See map for specific States in the "USE AREA" section.

Use Precaution

This product may be applied sequentially in a single crop season as long as the total use rate applied in the crop season does not exceed the highest rate per acre for any given soil type.

Use Restrictions on Corn

- Do not apply this product in reduced tillage, minimum tillage or no-till Fresh sweet corn, Seed corn or Popcorn.
- Do not apply this product in no-till in California.
- Do not apply this product pre-plant incorporated.
- Do not apply this product post-emergence in liquid fertilizer.
- Do not graze livestock or feed forage from treated Corn less than 21 days after application of this product.

COTTON

Methods of Application, Timing and Rates

- This product may be applied by ground, air, chemigation or on dry bulk fertilizer to Cotton grown under conventional tillage, minimum-tillage, no-till systems or on stale seedbeds.
- **Fall Application:** This product may be applied to control weeds in Cotton in the Fall after October 15 (up to 140 days prior to planting Cotton) in Arizona, California, Louisiana, Mississippi, New Mexico, Oklahoma, and Texas. Apply this product at the broadcast rate of 1.0 quart per acre on coarse or medium soils and 1.5 quarts per acre on fine soils.

Pre-plant Surface Application: Apply this product up to 15 days prior to planting. Apply tank-mixes of this product and sequential programs as specified under the "TANK-MIXING INFORMATION" section.

Pre-plant Incorporated Application: Apply this product up to 60 days prior to planting and incorporate. Apply tank-mixes of this product and sequential programs as specified under the "TANK-MIXING INFORMATION" section.

Pre-emergence Application: Apply this product at planting or up to 2 days after planting. Apply to a seedbed that is firm and free of clods. Apply tank-mixes of this product and sequential programs as specified under the "TANK-MIXING INFORMATION" section.

Pre-plant Incorporated Followed by Pre-emergence Applications: Apply this product up to 60 days prior to planting and incorporate. Make overlay application of this product at planting or up to 2 days after planting. Total amount of this product applied per acre cannot exceed the highest labeled rate for a given soil type. Pre-plant incorporated and pre-emergence applications of this product may be applied with the labeled tank-mix herbicide(s).

Lay-by Application (At last cultivation): Apply this product directly to the soil between rows as a directed spray following the last normal cultivation (lay-by). Lay-by applications can be applied in Cotton previously treated with this product or any herbicide(s) registered for use in Cotton. Consult the labels of those herbicide(s) for use directions, rates to be used, precautions or restrictions for use in Cotton and restrictions for rotational crops. The total amount of this product applied per acre per season cannot exceed the highest labeled rate for a given soil type.

Glyphosate may be applied with this product at lay-by in Cotton with the Glyphosate tolerant gene (e.g., Roundup Ready® or Roundup Ready Flex). DO NOT apply Glyphosate-containing products at lay-by on non-Glyphosate tolerant Cotton. Do not apply this product and Glyphosate tank-mix as a broadcast spray over-the-top of Cotton or crop injury may result.

Post-emergence Application: This product may be applied by ground or air as a broadcast over-the-top post-emergence application in Cotton. Post-emergence treatments are most effective in controlling weeds when adequate rainfall or overhead irrigation is received after application. Apply this product before weeds germinate or after clean cultivation to remove existing weeds because this product will not control emerged weeds. Apply a post-emergence herbicide to control emerged weeds.

This product may be used alone or tank-mixed with Glyphosate on Glyphosate tolerant Cotton (e.g., Roundup Ready or Roundup Ready Flex) or Glufosinate on Glufosinate tolerant Cotton (e.g., LibertyLink®). Do not tank-mix and apply over-the-top post-emergence with Prometryn, Fluometuron, Metolachlor, Glyphosate + Metolachlor or Pyriithiobac. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank-mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank-mixture.

Dry ammonium sulfate (AMS) at 17 pounds per 100 gallons of spray solution must be used when tank-mixing this product with Glyphosate. Liquid AMS at an equivalent rate may also be used. A nitrogen replacement should not be used with this tank-mix unless specified as acceptable from the Manufacturer in writing. An appropriate mixing order is as follows:

- 1) Fill tank to at least one-half full with water;
- 2) Then add in order: AMS, This product, Glyphosate herbicide;
- 3) Then fill the tank to capacity with water.

Post-emergence Application of This Product on Glyphosate-tolerant Cotton (e.g., Roundup Ready or Roundup Ready Flex) Only: Note - Instructions for use of this product on Glyphosate-tolerant Cotton are specific to and should only be used with varieties designated as Glyphosate-tolerant.

Consult and follow the Glyphosate product labels for their respective rates, application methods, precautions, and application timing restrictions.

- Roundup Ready Cotton - Tank-mixing this product with Glyphosate (in water): Apply this product broadcast post-emergence over-the-top of Cotton after Cotton reaches the 4-leaf to 5-leaf growth stage. DO NOT apply to Cotton before the 4-leaf stage or after the 5-leaf stage or significant crop injury and/or yield loss may occur.
- Roundup Ready Flex Cotton - Tank-mixing of this product with Glyphosate (in water): Apply this product broadcast post-emergence over-the-top of Cotton after Cotton reaches the 4-leaf growth stage, but not after the 8-leaf growth stage. Over-the-top application made before the 4-leaf growth stage or after the 8-leaf growth stage may result in crop injury and/or yield loss.

Post-emergence Application of This Product on Glufosinate-tolerant (e.g. LibertyLink) Cotton: Note - Instructions for use of this product on Glufosinate-tolerant are specific and should only be used with varieties designated as Glufosinate tolerant. Consult and follow the Ignite label for respective rates, application method, precautions, and application timing restrictions.

- Tank-mixing of this product with Glufosinate (in water) - Apply this product broadcast post-emergence over-the-top of Cotton after Cotton reaches the 4-leaf growth stage, but not after the 8-leaf growth stage. Over-the-top application made before the 4-leaf growth stage or after the 8-leaf growth stage may result in crop injury and/or yield loss.

Post-emergence Application of This Product Alone to All Cotton (In Water): Apply this product broadcast post-emergence over-the-top of Cotton after Cotton reaches the 4-leaf growth stage, but not after the 8-leaf growth stage. Over-the-top applications made before the 4-leaf growth stage or after the 8-leaf growth stage may result in crop injury and/or yield loss.

Over-the-top post-emergence application of this product can be applied in Cotton previously treated with at-planting soil applications of this product or any other soil-applied herbicide(s) registered for use in Cotton. Consult the labels of those herbicides for treatments, rates, precautions or restrictions for use in Cotton, and for rotational crop restrictions. Follow the most restrictive label instructions.

Use Precautions: Post-emergence application of this product may cause temporary growth reduction and/or leaf discoloration or malformation of Cotton after application.

Post-emergence Use Restrictions:

- Do not apply over-the-top in fluid fertilizer.
- Do not apply in tank-mix with any adjuvant, surfactant, oil, or other pesticide (except for Cotton insecticides).
- Do not apply in any manner except as described in this label or crop injury and/or yield reduction may occur.
- Do not apply if Cotton is under stress (including stress related to previous pesticide treatments, poor fertilization, environmental conditions, and/or pest damage) at time of application. If cotton is under stress (including stress related to previous pesticide treatments, poor fertilization, environmental conditions, and/or pest damage) at time of application, this product may retard Cotton recovery and/or adversely affect yield.

Chemigation Application: This product may be applied through sprinkler irrigation systems. Follow all directions, special instructions, precautions and restrictions for chemigation under the "APPLICATION INSTRUCTIONS" section.

Use Rates:

Pre-Plant, Pre-Emergence, Lay-by Applications		
Soil Texture	Conventional or Minimal Tillage (Qts./Acre)	No-Till** (Qts./Acre)
Coarse	0.5 to 1.0*	1.0
Medium	1.0	1.5
Fine	1.5	2.0

*Do not exceed 0.8 quart per acre on coarse textured soils in California.
 **Not for use on soils with more than 3% organic matter.

Post-Emergence Applications*	
Soil Texture	Conventional, Minimum or No-Tillage (Qts./Acre)
Coarse	0.5 to 1.0**
Medium	0.75 to 1.0
Fine	1.0

*This product used alone or in tank-mixture with Glyphosate (e.g., Imitator, Roundup) or Glufosinate (e.g., Ignite).
 **In California, do not exceed 0.8 qt. of this product on coarse-textured soils.

Additional Weeds Suppressed

In addition to the weeds listed in the "WEEDS CONTROLLED" table, this product will suppress Russian thistle in the State of Arizona.

Use Restrictions on Cotton

- Do not apply this product in no-till in California.
- Do not apply this product post-emergence in California.
- Do not exceed the highest seasonal rate of this product per acre for any given soil type.
- Do not apply more than 1 quart of this product (0.95 lb. a.i.) per acre post-emergence to Cotton for any given soil type.
- Do not apply more than the maximum cumulative seasonal rate of 2.1 quarts of this product (2 lbs. a.i.) per acre for combined pre-plant/pre-emergence and post-emergence applications.
- Pre-harvest interval (PHI) for Cotton: 60 days.

Note: In treated Cotton fields, forage may be fed to or grazed by livestock.

DRY BULBS

This product may be applied to the following dry bulb crops:

Daylily, bulb Fritillaria, bulb Garlic, bulb Garlic, great-headed, bulb	Garlic, serpent, bulb Lily, bulb Onion, bulb Onion, Chinese, bulb	Onion, pearl Onion, potato, bulb Shallot, bulb
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On Mineral Soils

Methods of Application, Timing and Rates

- This product may be applied by ground, air or chemigation.
- This product may be applied to direct-seeded and transplanted dry bulb Onions and dry bulb Shallots.

Pre-emergence Application: After Garlic planting but before crop and weeds emerge.

Post-emergence application: When Garlic is in the 1st to 5th true-leaf growth stage.

Split Application: In Garlic at both pre-emergence and post-emergence timings.

Use Rates:

Soil Texture	Broadcast Rate (Qts./Acre)
Coarse	0.75
Medium	1.0
Fine	1.6

State Specific Instructions

In All States (Except CA): Apply this product as a broadcast treatment when dry bulb Onions or dry bulb Shallots have 2 to 9 true leaves.

In California: Apply this product only as a single application when dry bulb Onions or dry bulb Shallots have 2 to 6 true leaves.

In Colorado, Kansas, and Nebraska: This product may be applied sequentially in seeded dry bulb Onions. Make first application of this product at loop stage. Make sequential application of this product early post-emergence (2nd to 9th true-leaf stage). Do not apply more than the maximum labeled rate for a given soil texture. Do not apply this product at loop stage through the 9th true-leaf stage if heavy rains are expected or severe crop injury may result.

In Colorado and the High Plains of Texas: For transplanted dry bulb Onions only, apply and shallow incorporate (less than 2-inches deep) this product into preformed beds before transplanting.

In Idaho, Oregon, and Washington: Apply this product as a broadcast treatment when dry bulb Onions or dry bulb Shallots are between the flag leaf to 9th true-leaf stage.

This product may be used at 1.5 to 2.0 quarts per acre to control Dodder on medium-texture and fine-texture soils. Do not apply using chemigation at the Dodder control rate.

This product may be applied in the Fall or Spring to the furrow area of land bedded in the Fall in preparation for planting seed of dry bulb Onions the following Spring. Apply this product as a banded application at rates based on appropriate soil texture. Band width is one-half the width of the row spacing. Keep this product away from the area where dry bulb Onion seed will be planted.

Harrow off tops of beds after furrow application of this product before planting dry bulb Onions.

For selective weed control in the Onion row, apply this product as a banded post-emergence application to flag leaf dry bulb Onions at the labeled rates based on soil texture. Apply this product only once to the furrow area and once to the dry bulb Onion row as a post-emergence application.

In Michigan: For mineral soils containing more than 10% organic matter, follow the directions for muck soils below.

Use Restrictions for Dry Bulbs Planted on Mineral Soils

- Do not mechanically incorporate except as specified for use on dry bulb Onions in Colorado and the Texas High Plains.
- Do not apply more than 1.6 quarts of this product per acre per growing season (except Idaho, Oregon, and Washington).
- Do not apply this product pre-emergence through the loop stage if heavy rains are expected or severe crop injury may result. If irrigating immediately after application of this product at the pre-emergence through loop stage, DO NOT irrigate more than one-half inch of water.
- Pre-harvest Interval (PHI) - 60 days in California; 45 days in all other states.
- Do not feed or graze these crops.

On Muck Soils

Methods of Application, Timing and Rates

This product may be applied sequentially in dry bulb Onions or dry bulb Shallots on muck soils, only once pre-emergence and only twice post-emergence as follows:

Time of Application and Growth Stage	Rate (Qts./Acre)
Pre-emergence through loop stage	2.0
Early post-emergence (2nd to 6th true-leaf stage)	2.0
Late post-emergence (6th to 9th true-leaf stage)	2.0

Chemigation Application: This product may be applied through sprinkler irrigation systems. DO NOT irrigate more than 0.5 inch of water. Follow all directions, special instructions, and precautions for chemigation found in the "APPLICATION INSTRUCTIONS" section.

Use Restrictions for Dry Bulbs Planted on Muck Soils

- Do not apply to muck soils in California.
- Pre-harvest Interval (PHI): 45 days.
- Do not feed or graze these crops.
- Do not apply more than 6.3 quarts per acre per growing season on muck soils. To maximize crop safety, ensure good soil coverage during planting or transplanting and delay pre-emergence applications to the loop stage, if possible.
- Do not apply this product pre-emergence through the loop stage if heavy rains are expected or severe crop injury may result. If irrigating immediately after application of this product at the pre-emergence through loop stage, DO NOT irrigate more than one-half inch of water.
- DO NOT plant Red beets, Spinach, Sugar beets, Winter barley or Winter wheat as rotational crops on muck soils for 12 months from the time of last application if more than 1.6 quarts per acre of this product was applied to the Onion crop.
- If loss of Onion crop occurs, do not replant any crop other than Onions in muck soil during the same cropping year and do not work the soil deeper than 2 inches.

EDIBLE BEANS

This product may be applied to the following edible Beans:

Dry beans [Adzuki, Black, Black turtle, Broad, Cranberry, Faba, Fava, Field, Great Northern, Guar, Lima (dry), Navy, Pinto, Red kidney, White beans] Garbanzo beans (Chickpea) Lima beans	Snap beans Southern peas (Cowpeas) Sweet lupins
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Methods of Application, Timing and Rates

- This product may be applied by ground, air or on dry bulk fertilizer (only Fall and pre-plant incorporated applications).
- This product may be applied (Fall) pre-plant surface or pre-plant incorporated in Dry beans, Lima beans, Snap beans and Southern peas (Cowpeas).
- This product may be applied (Fall) pre-plant surface or pre-plant incorporated or (Spring) pre-plant surface in Garbanzo beans (Chickpea).
- This product may be applied (Fall) pre-plant surface or pre-plant incorporated or pre-emergence in Sweet lupins.

Pre-plant Incorporated: Apply up to 60 days prior to planting.

Pre-emergence: Apply only to Sweet lupins at planting or up to 2 days after planting. Apply to a seedbed that is firm and free of clods.

Use Rates:

Soil Texture	Pre-Plant Incorporated, Pre-Emergence Applications		
	Southern States*	Northern States*	
	Rate (Qts./Acre)	Rate (Qts./Acre)	
		≤ 3% Organic Matter	> 3% Organic Matter
Coarse	0.75	1.0	1.0
Medium	1.0	1.25	1.5
Fine	1.5	1.5	1.5

*See map for specific States in the "USE AREA" section.

Fall Applications (For Use Only in Idaho, Minnesota, Montana, North Dakota, Oregon, South Dakota, Washington, and Wyoming)

Apply this product pre-plant surface or pre-plant incorporated (rainfall, irrigation or mechanically) in late Fall before planting edible Beans [Dry beans, Garbanzo (Chickpea) beans, Lima beans, Snap beans, Southern pea (Cowpea), and Sweet lupins] the following Spring. Apply this product in the late Fall when soil temperatures are 45°F or below but before the ground freezes.

Do not apply when the air temperature is below 45°F.

Rainfall or irrigation is required for incorporation and activation. Unpredictable weed control can be expected because factors such as length of time between application and planting as well as uncontrollable weather factors will determine herbicide activity and longevity.

Use Rates:

Soil Texture	Fall Applications*	
	Broadcast Rate (Qts./Acre)	
	≤ 3% Organic Matter	> 3% Organic Matter
Coarse	1.0	1.0
Medium	1.25	1.5
Fine	1.5	1.5

* Use limited to certain States. Follow state-specific instructions and/or restrictions.

State Specific Instructions

Colorado, Idaho, Kansas, Montana, Nebraska, New Mexico, Oregon, Washington, and Wyoming: Apply this product by ground post-plant pre-emergence to Dry beans grown under sprinkler irrigation in Colorado, Idaho, Kansas, Montana, Nebraska, New Mexico, Oregon, Washington, and Wyoming. Dry beans must have a minimum planting depth of 2 inches. Before applying this product to Dry beans, growers should check with their local seed company or seed supplier for sensitive varieties and verify the selectivity of this product on the grower's specific Dry bean variety. Application of this product made post-plant pre-emergence to Dry beans must be immediately followed by 0.5 to 0.75 inch of water from overhead irrigation/rainfall.

Apply this product within 1 to 4 days of planting and up to but not more than 1.0 quart per acre. Apply to a firm seedbed free of clods. Soil conditions that cause poor seed furrow closure and coverage may result in delayed emergence and stunting of

the crop. DO NOT apply as a chemigation application. DO NOT apply this product in tank-mix with Permit® or Valor® as a pre-emergence application to Dry beans because of unacceptable crop response.

Under certain environmental conditions, including cool temperatures, excessive moisture after application and wet soil conditions may result in crop injury, delayed emergence, and/or stunting with use of this product in Dry beans. Adequate rainfall or irrigation after application before weed seedling germination provides the most effective weed control.

Idaho, Montana, North Dakota, Oregon, and Washington: This product may be applied to Garbanzo beans (Chickpea) grown in no-tillage and/or minimum tillage systems in Idaho, Montana, North Dakota, Oregon, and Washington. Pre-plant surface applications must be made within 30 days of planting. Do not apply more than 0.75, 1.0, and 1.5 quarts of this product per acre in coarse, medium, and fine texture soils, respectively. When planting, ensure the seed furrow is fully closed because conditions that allow the seed furrow to inadequately close and/or allow this product to contact the seed may result in crop injury.

Certain unfavorable environmental conditions, including cool temperatures, excessive moisture after application, and wet and/or compacted soil conditions, may result in delayed emergence and stunting with the use of this product in Garbanzo beans (Chickpea). Adequate rainfall or irrigation after application before weed seedling germination provides the most effective weed control. Herbicide performance from surface application may be decreased compared to soil incorporated application.

Idaho, Oregon, and Washington: This product may be applied post-plant pre-emergence only to Garbanzo beans (Chickpea) grown in conventional tillage systems in Idaho, Oregon, and Washington. Application must be made within 2 days of planting. Apply up to but not more than 0.75 quart per acre. Apply to a firm seedbed free of clods. Soil conditions that cause poor seed furrow closure and coverage may result in delayed emergence and stunting of the crop.

Under certain environmental conditions, including cool temperatures, excessive moisture after application and wet soil conditions may result in delayed emergence and stunting with use of this product in Garbanzo beans (Chickpea). Adequate rainfall or irrigation after application before weed seedling germination provides the most effective weed control.

Use Restrictions on Edible Beans

- Do not apply this product more than once per cropping season.
- Do not apply in any type of irrigation system.
- Do not feed Lupin hay and forage or graze livestock in treated Lupin fields.

FALLOW

This product may be applied to fallow ground following crop harvest as a planned residual treatment to control labeled broadleaf and grass weeds as they germinate.

Methods of Application, Timing and Rates

- This product may be applied to fallow ground by ground, air or chemigation.
- Apply as a broadcast spray at rates up to but not more than 1.5 quarts of this product per acre. Emerged weeds will not be controlled by this treatment. This product must be applied with a tank-mix partner (i.e., Glyphosate) for control of emerged weeds.
- There must be at least a 4 months interval between a fallow application of this product and rotational planting of any Fall seeded Cereal crop. Otherwise, specific rotational crop intervals must be adhered to between a fallow application of this product and planting of the following crop. (See "CROP ROTATION" section of this label).

State Specific Instructions

In Colorado, Idaho, Kansas, Montana, Nebraska, Nevada, Oregon, Utah, Washington, and Wyoming: Apply as a broadcast spray at rates up to, but not more than 1.6 quarts of this product per acre.

Use Restrictions

- Do not make more than one application of this product during a single fallow period.
- Do not apply this product to fallow ground after July 1 if treated fields are to be planted the following spring to crops not labeled for pre-plant or pre-plant incorporated applications of this product.

FARMSTEAD

Methods of Application, Timing and Rates

- Apply this product as a broadcast spray at 2.1 quarts per acre for short-term (2 to 4 months) or at 4.2 quarts per acre for long-term (6 to 8 months) pre-emergence control of labeled broadleaf and grass weeds as they germinate in the following farmstead non-agricultural areas: barnyards, lanes, driveways, machinery or implement yards, windbreaks, and non-agricultural fencerows or ditch banks.

FORAGE GRASSES (COOL-SEASON) GROWN FOR FORAGE, HAY PRODUCTION OR IN PASTURES AND RANGELAND

Methods of Application, Timing and Rates

- This product may be applied by ground, air, chemigation or on dry bulk fertilizer.

Chemigation Application: This product may be applied through sprinkler irrigation systems. Follow all directions, special instructions, and restrictions for chemigation found in the "APPLICATION INSTRUCTIONS" section.

Established Perennial Cool-Season Forage Grasses

Apply this product to solid stands of perennial cool-season forage grasses [including Bentgrass, Bluegrass (Kentucky), Bromegrass, Fescue (fine, tall), Orchardgrass, Perennial ryegrass, Timothy, Wheatgrass, and others] grown for forage, green chop, silage, hay production, and/or grown in pastures, rangeland or Federal Conservation Reserve Program (CRP) land for livestock grazing.

Apply this product only to established (grass with 6 or more tillers per plant) perennial cool-season forage grasses before target weed germination in Fall after the last cutting/mowing/grazing, in Winter, Spring or in-season between cuttings.

Uniformly apply at a broadcast rate of 1.1 to 4.2 quarts of this product per acre in a single application or sequential applications made 30 or more days apart.

Do not apply more than a maximum cumulative total of 4.2 quarts of this product per acre per year.

Apply the higher labeled rate of this product when higher weed pressure is anticipated or when a longer duration of residual weed control is desired.

This product may cause temporary injury to cool-season forage grass stands. Application made in periods of cold temperatures that temporarily limit normal crop growth or in extended cold temperature periods that initiate Winter dormancy in grass crops may result in crop injury. Disease, extremely cold weather, drought, extensive frost heaving, salinity, low pH or high pH may weaken stands and make the crop more susceptible to herbicide injury.

Mixed Stands of Established Cool-Season Forage Grasses

Apply this product to mixed stands of established cool-season forage grasses in the Fall after the last cutting/mowing/grazing, in Winter, Spring before weed germination or in-season between cuttings.

Tank-Mixes

This product may be applied in a sequential use program with other herbicides labeled for use in cool-season forage grasses or applied as a tank-mix with other registered herbicides that control emerged weeds. Application of post-emergence herbicides may cause crop injury. If suitability is not known, test this product in tank-mixes on a small portion of the target crop to determine if damage is likely to occur. Consult your local dealer for local tank-mix options. Perform a mixing test to check the compatibility of this product if not known with all potential tank-mix partners and fertilizers.

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank-mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank-mixture.

Physical incompatibility, reduced weed control or crop injury may result from mixing this product with other pesticides, additives or fertilizers.

Use Restrictions for Cool-Season Forage Grasses

- Do not apply this product if surface water is present in the field.
- Do not apply more than a maximum cumulative total of 4.2 quarts of this product per acre per year.
- Do not apply this product to mixed stands of cool-season forage grasses with other forage legumes.
- Not for use in California except as directed in supplemental labeling.
- Do not graze cool-season forage grasses or harvest for forage or hay less than 14 days after application of this product.

Note: There is no pre-harvest or pre-grazing interval for grass forage, green chop, silage, hay, pasture or rangeland treated with this product.

FORAGE GRASSES (WARM-SEASON) GROWN FOR FORAGE, HAY PRODUCTION OR IN PASTURES AND RANGELAND

Methods of Application, Timing and Rates

- This product may be applied by ground, air, chemigation or on dry bulk fertilizer.

Chemigation Application: This product may be applied through sprinkler irrigation systems. Follow all directions, special instructions, and restrictions for chemigation found in the "APPLICATION INSTRUCTIONS" section.

Established Bermudagrass and Other Perennial Warm-season Forage Grasses

SINGLE APPLICATION: Apply this product in fields of Bermudagrass (and other perennial warm-season grasses including Bahiagrass, Buffalograss, Switchgrass, and others) grown for forage or hay production, and/or grown in pastures, rangeland or Federal Conservation Reserve Program (CRP) land for livestock grazing.

Apply this product only to established (defined as planted in fall or spring which has gone through a first cutting/mowing) Bermudagrass and other perennial warm-season forage grasses.

Apply this product before target weed germination in the dormant season [i.e., when grasses are not actively growing in Fall (postharvest), during winter dormancy period or in early spring before green-up] or in-season between cuttings. DO NOT apply to Bermudagrass and other perennial warm-season grasses after green-up in Spring before the first cutting.

Uniformly apply at a broadcast rate of 1.1 to 4.2 quarts of this product per acre in a single application.

SEQUENTIAL OR SPLIT APPLICATION: This product may also be applied as a sequential or split program when the initial application(s) is made in the dormant season and the subsequent application(s) is made in-season between cuttings. DO NOT apply more than a maximum cumulative total of 4.2 quarts of this product per acre per year.

Apply the higher rate of this product when higher weed pressure is anticipated or when a longer duration of residual weed control is desired.

This product may be applied in a sequential use program or as a tank mix with other registered herbicides that control emerged weeds.

Use Precautions

This product may cause temporary injury to Bermudagrass and other perennial warm-season grass stands. Disease, extremely cold weather, drought, extensive frost heaving, salinity, low pH or high pH may weaken stands and make the crop more susceptible to herbicide injury.

Tank-Mixes

This product may be applied in a sequential use program with other herbicides labeled for use in Bermudagrass and other perennial warm-season grass fields. Test this product in tank-mixes on a small portion of the target crop to determine if damage is likely to occur. Consult your local dealer for local tank-mix options. If compatibility is not known, perform a mixing test to check the compatibility of this product with all potential tank-mix partners and fertilizers.

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank-mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank-mixture.

Note: Physical incompatibility, reduced weed control or crop injury may result from mixing this product with other pesticides, additives, or fertilizers.

Use Restrictions for Warm-season Forage Grasses

- Do not apply this product if surface water is present in the field.
- Do not apply more than a maximum cumulative total of 4.2 quarts of this product per acre per year.
- Not for use in California.

Note: There is no pre-harvest interval for grass forage or hay, pasture or for livestock grazing after application of this product.

FRUITING VEGETABLES

This product may be applied to the following fruiting vegetables:

African eggplant	Groundcherry	Scarlet eggplant
Bell pepper	Martynia	Sunberry
Bush tomato	Naranjilla	Tomatillo
Cocona	Nonbell pepper	Tomato
Currant tomato	Okra	Tree tomato
Eggplant	Pea eggplant	
Garden huckleberry	Pepino	
Goji berry	Roselle	

Methods of Application, Timing and Rates

- This product may be applied by ground or air.
- Uniformly apply this product by ground or air as a broadcast pre-plant incorporated application or as a broadcast pre-plant surface application before transplanting fruiting vegetables.
- Uniformly apply this product only by ground as a post-directed application to transplanted or established direct-seeded fruiting vegetables.
- Do not apply prior to direct-seeded fruiting vegetables.
- Do not apply post-emergence over-the-top of or to foliage of fruiting vegetables as severe injury may occur.
- This product can be applied as a post-directed spray on the soil at the base of the plant, beneath plants, and between rows. Avoid direct contact with foliage or stems. Roots of transplants must be established. After the post-directed spray and when sufficient rainfall or irrigation does not occur to activate the herbicide, mechanically incorporate at the time of blocking and thinning or at lay-by. Apply this product before weed germination. Emerged weeds will not be controlled by this treatment.
- This product may also be applied in fruiting vegetables transplanted to raised beds. Before transplanting, apply this product pre-plant non-incorporated in a band to the top of the pressed bed just before laying plastic. After transplanting, this product may also be applied in a band to the previously untreated row middles between the transplanted beds. For banded application to the bed or row middles, DO NOT overlap spray. Apply no more than the maximum broadcast use rate of this product on a per acre basis for the given soil texture.
- This product applied at 1.0 to 1.5 quarts per acre may aid in control or suppression of the following weeds when used as part of a comprehensive weed management program: Black nightshade, Hairy nightshade.

Use Rates:

Soil Texture	Broadcast Rate (Qts./Acre)
Coarse	0.5 to 0.75
Medium	0.75 to 1.0
Fine	0.75 to 1.5

Use Precautions

- Avoid root contact with soil treated with this product when placing transplants into furrow or hole or injury may occur.

Use Restrictions on Fruiting Vegetables

- Do not apply more than 1.5 quarts of this product per acre per season.
- Pre-harvest Interval (PHI) for Tomatoes: 21 days.
- Pre-harvest Interval (PHI) for all other fruiting vegetables: 70 days.
- Do not plant Lettuce within 6 months after application of this product if rows were covered with plastic.

GRAIN SORGHUM

Methods of Application, Timing and Rates

- This product may be applied by ground or air.
- This product may be applied post-emergence incorporated (CULTI-SPRAY) in Grain sorghum in all states. In addition, this product may be applied early post-emergence in Grain sorghum grown in states east of the Mississippi River and in Arizona, Arkansas, California, Eastern Texas, Louisiana and the Missouri bootheel.

Culti-Spray Application: Treatments of this product can be applied from the 4-inch growth stage to as late as the last cultivation (lay-by) of Grain sorghum. See specific directions for CULTI-SPRAY application under the "TIMING OF APPLICATION" section.

In addition to the weeds listed in the "WEEDS CONTROLLED" table, this product will control the following weeds in Grain Sorghum as a CULTI-SPRAY application: Wild proso millet and Shattercane.

Early Post-emergence Application: For use only in states east of the Mississippi River and in Arizona, Arkansas, California, Eastern Texas, Louisiana and Missouri bootheel. The seedbed should be firm and free of clods and trash. Use only where adequate tillage is practiced to provide good seed coverage. Plant Grain sorghum at least 1.5 inches deep to ensure good seed coverage.

Use Rates:

Culti-Spray Application		
Soil Texture	Rate (Qts./Acre)	
	Southern States*	Northern States*
Coarse	0.75	1.0
Medium	1.0	1.5
Fine	1.5	1.5

*See map for specific States in the "USE AREA" section.

Early Post-Emergence Application	
Soil Texture	This Product (Qts./Acre)
Coarse	DO NOT USE
Medium, Fine	1.0

Use Restrictions on Grain Sorghum

- Do not apply this product pre-plant incorporated or pre-emergence as serious crop injury can result.
- Do not apply this product more than once per crop season.
- Do not apply this product as a CULTI-SPRAY treatment planted in double row beds.
- Do not replant Grain sorghum if crop loss occurs.
- Do not apply in liquid fertilizer.
- Do not graze or feed forage to livestock from Grain sorghum fields less than 21 days after application of this product.

GREEN ONIONS

This product may be applied to the following crops in the green Onion crop subgroup:

Chive, fresh leaves	Leek	Onion, tree, tops
Chive, Chinese, fresh leaves	Leek, wild	Onion, Welsh, tops
Elegans hosta	Onion, Beltsville bunching	Shallot, fresh leaves
Fritillaria, leaves	Onion, fresh	Cultivars and/or hybrids of these
Kurrat	Onion, green	
Lady's leek	Onion, macrostem	

Methods of Application, Timing and Rates

- This product may be applied by ground, air or chemigation.
- This product may be applied pre-emergence, post-emergence or split application.

Pre-emergence or Post-emergence Application: Uniformly apply 1.0 quart of this product per acre as a broadcast spray to the soil surface as pre-emergence spray or as a post-emergence spray to the crop at the 2 to 3 true-leaf stage at least 30 days before harvest.

If this product is to be applied sequentially both as a pre-emergence and post-emergence spray, the pre-emergence spray must be applied 30 days prior to the post-emergence spray.

Onion seeds must be fully covered by soil at planting, otherwise, injury may occur.

Chemigation Application: This product may be applied through sprinkler irrigation systems at 2 to 3 true-leaf stage at least 30 days before harvest. Do not irrigate in excess of one-half inch of water. Follow all directions, special instructions and restrictions for chemigation under the "APPLICATION INSTRUCTIONS" section of this label.

Use Restrictions on Green Onions

- Do not apply more than 1.0 quart of this product per acre per application.
- Do not apply more than 2.0 quarts of this product per acre per season.
- Pre-harvest Interval (PHI): 30 days.
- Do not feed forage or graze livestock in treated fields.
- Not for use in California except as directed in 24(c) Special Local Need labeling.

HOPS

Methods of Application, Timing and Rates

- This product may only be applied by ground.
- This product may be used as part of a weed management program in baby (first year planting) and established Hops.
- Apply this product before germination of target weeds when Hops are in the dormant or vegetative growth stages.
- Apply this product as a broadcast or banded treatment (including post-emergence directed) using ground equipment. Apply the spray directly to the ground beneath the vines and/or in areas between rows. DO NOT apply over-the-top of vines with leaves or cones. Contact with hop foliage or cones by spray mixture or drift may cause injury.
- Uniformly apply this product at a broadcast rate of 1.1 to 4.2 quarts per acre in a single application or sequential applications with an interval of 30 days or more not to exceed the cumulative total of 4.2 quarts of this product per acre per year.
- This product may be applied in a sequential use program or as a tank mix with other registered herbicides that control emerged weeds.

Tank-Mixes

This product may be tank-mixed with other herbicides labeled for use in Hops. If suitability is not known, test this product in tank-mixes on a small portion of the target crop to determine if damage is likely to occur. Follow all precautions and restrictions on the labels of all products applied in combination with this product. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank-mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank-mixture.

Use Restrictions on Hops

- Do not apply to Hops by air or through any type of irrigation system.
- Do not apply more than a maximum cumulative total of 4.2 quarts of this product per acre per year.
- Pre-harvest Interval (PHI) for Hop cones: 90 days.
- Not for use in California except as directed in 24(c) Special Local Need labeling.

LEAF LETTUCE

Methods of Application, Timing and Rates

- This product may be applied by ground or air.
- With a single application, uniformly apply up to 1.05 quarts of this product per acre as a broadcast foliar spray to direct-seeded or transplanted Leaf lettuce from the 3-leaf stage until 20 days before harvest.

Use Restrictions on Leaf Lettuce

- Do not apply pre-plant, pre-transplant, pre-emergence (direct-seeded) to Leaf lettuce because severe injury may occur.
- Do not foliar apply to Leaf lettuce before the 3 leaf growth stage because severe injury may occur.
- Do not apply more than 1.05 quarts of this product per acre per season.
- Pre-harvest Interval (PHI): 20 days
- Not for use in California.

LEAFY BRASSICA GREENS

This product may be applied to the following leafy Brassica greens:

Broccoli raab Chinese cabbage (Bok choy) Collards Kale	Mizuna Mustard greens, Mustard spinach, Rape greens	Turnip greens (cultivars or varieties grown for leaves only)
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Methods of Application, Timing and Rates

- This product may be applied by ground or air.
- With a single application, uniformly apply up to 1.05 quarts of this product per acre as a broadcast foliar spray to direct-seeded or transplanted leafy Brassica greens at the 4 to 5 leaf stage.

Use Restrictions on Leafy Brassica Greens

- Do not apply pre-plant, pre-transplant or pre-emergence (direct-seeded) to leafy Brassica greens because severe injury may occur.
- Do not foliar apply to leafy Brassica greens before the 4 leaf growth stage because severe injury may occur.
- Do not apply to Turnip greens varieties grown for roots or to dual purpose varieties grown for roots and tops.
- Do not use the roots of Turnip greens treated with this product for any feed or food purpose.
- Do not apply more than 1.05 quarts of this product per acre per season.
- Pre-harvest Interval (PHI): 21 days.

LENTILS AND PEAS

This product may be applied to Lentils and the following Peas:

Dry Dwarf Edible-podded	English Garden Green	Pigeon
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Any crop registered for a pre-plant incorporated application of this product can be double-cropped after Peas.

Methods of Application, Timing and Rates

- This product may be applied by ground, air or on dry bulk fertilizer (only Fall and pre-plant incorporated applications).

Pre-plant Incorporated Application: This product may be applied within 60 days of planting. After application, rotary hoeing and shallow cultivation/tillage can be practiced without reducing weed control. Avoid tillage that will bring untreated soil to the surface.

Pre-plant Surface and Pre-plant Incorporated (Fall Application in Idaho, Minnesota, Montana, North Dakota, Oregon, South Dakota, Washington, and Wyoming): Apply this product and incorporate (rainfall, irrigation, or mechanically) in late Fall before planting Lentils or Peas the following Spring. Apply this product in the late Fall when soil temperatures are 45°F or below but before the ground freezes. Do not apply when the air temperature is below 45°F.

Rainfall or irrigation is required for incorporation and activation. Unpredictable weed control can be expected because factors such as length of time between application and planting as well as uncontrollable weather factors determine herbicide activity and longevity.

Use Rates:

Pre-Plant Surface, Pre-Plant Incorporated*	
Soil Texture	Broadcast Rate (Qts./Acre)
Coarse	0.75
Medium	1.0
Fine	1.5

*Follow seasonal restrictions and/or State specific instructions.

State Specific Instructions

Idaho, Montana, North Dakota, Oregon, and Washington: This product may be applied to Lentil or Peas (dry Peas only) grown in no-tillage and/or minimum-tillage systems in Idaho, Montana, North Dakota, Oregon, and Washington. Pre-plant surface application must be made within 30 days of planting. When planting, ensure the seed furrow is fully closed because conditions that allow the seed furrow to inadequately close and/or allow this product to contact the seed may result in crop injury.

Certain unfavorable environmental conditions, including cool temperatures, excessive moisture after application, and wet and/or compacted soil conditions, may result in delayed emergence and stunting with use of this product in Lentil or Peas.

Adequate rainfall or irrigation after application before weed seedling germination provides the most effective weed control. Herbicide performance from surface application may be decreased compared to soil incorporated application.

Idaho, Oregon, and Washington: This product may be applied post-plant pre-emergence only to Lentil or all Peas grown in conventional-tillage systems in Idaho, Oregon, and Washington. Application must be made within 2 days of planting. Apply up to but not more than 0.75 quart of this product per acre. Apply to a firm seedbed free of clods. Soil conditions that cause poor seed furrow closure and coverage may result in delayed emergence and stunting of the crop.

Under certain environmental conditions including cool temperatures, excessive moisture after application, and wet soil conditions may result in delayed emergence and stunting with the use of this product in Lentil or Peas. Adequate rainfall or irrigation after application before weed seedling germination provides the most effective weed control.

Use Restrictions on Lentils and Peas

- Do not use in California.
- Do not apply this product pre-emergence in Peas unless otherwise noted in “*State Specific Instructions*” section.
- Do not apply this product more than once per cropping season.
- Do not apply to Lentils, Peas, Lentil or Pea forage, Pea silage, Pea hay or Pea straw grown for livestock feed.
- Do not apply in any type of irrigation system.

MELONS

This product may be applied to following Melons:

Cantaloupe Citron melon	Muskmelon Watermelon
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Methods of Application, Timing and Rates

- This product may only be applied by ground.
- This product may be applied sequentially in Melon production. Initially apply up to 1.05 quarts of this product per acre as a shielded application between rows with 6 inches on either side of row middles (before Melon transplanting or before a seeded crop has emerged) or between rows covered with plastic mulch (before holes are punched in plastic for Melon planting). Make a second shielded application at up to 1.05 quarts of this product per acre between rows with a minimum of 6 inches on either side of stem or vines or between plastic mulch before Melon vine running. The interval between

sequential applications of this product must be at least 21 days. Avoid spray contact with Melon foliage or running vines because crop injury will occur.

Use Restrictions on Melons

- Do not apply more than 1.05 quarts of this product per acre in a single application or more than 2.1 quarts of this product per acre per season.
- Pre-harvest Interval (PHI): 35 days.
- Do not feed forage or graze livestock in treated fields.
- Not registered for use in Arizona and California.

MINT (Peppermint, Spearmint)

Methods of Application, Timing and Rates

- This product may be applied by ground or air.
- Make a single broadcast pre-emergence application of this product to Mint using 0.75 to 2.0 quarts of this product per acre depending on soil texture (see table below) to dormant established Mint before germination of weeds. After application of this product, some temporary crop injury may be observed early in the growing season as Mint breaks dormancy and begins to grow.
This product will not cause crop injury when applied according to the label under normal growing conditions. Non-uniform application may result in injury to crops, poor stands or soil residues. Conversely, uneven application may reduce weed control. Diseases, cold weather, excessive moisture, deep planting, low or high pH, salinity or drought may weaken seedlings and plants and make them more susceptible to herbicide damage.

Use Rates:

Soil Texture	Broadcast Rate (Qts./Acre)
Coarse	0.75 to 1.0
Medium	1.0 to 2.0
Fine	1.0 to 2.0

Use Restrictions on Mint

- Do not apply this product to Mint in the first year of growth and establishment.
- Do not apply to Mint that has broken dormancy or crop injury may result. Application to Mint that is near dormancy break can result in crop injury. Risk of crop injury increases the closer application is to Mint dormancy break.
- Do not apply to Mint stands that have been weakened by age, disease, cold weather, excessive moisture or other factors that reduce crop vigor. Mint growing under stress is more susceptible to herbicide damage.
- Do not apply more than 2.0 quarts of this product per acre per season.
- Pre-harvest Interval (PHI): 90 days.
- Do not allow livestock to graze on treated spent hay or feed treated spent hay to livestock.
- Do not apply this product on Mint through any type of irrigation system.

PEANUTS

Methods of Application, Timing and Rates

- This product may be applied by ground, air, chemigation or on dry bulk fertilizer (only Fall and pre-plant applications).
- Apply this product pre-plant incorporated.
- Apply this product pre-emergence to Peanuts grown under overhead irrigation.

Pre-plant Incorporated Application: Apply this product up to 60 days prior to planting and incorporate.

Pre-emergence Application: Apply this product at planting or up to 2 days after planting and before crop emergence. For Peanuts grown under overhead irrigation or to prevent decreased crop pegging, adequate incorporation must be achieved by applying a minimum of three-fourths (0.75) inch of overhead irrigation or rainfall within 48 hours of application.

Chemigation Application: This product may be applied through sprinkler irrigation systems. Follow all directions, special instructions, and restrictions for chemigation under the "APPLICATION INSTRUCTIONS" section.

Use Rates:

Region	Rate (Qts./Acre)
New Mexico, Oklahoma and Texas	0.5 to 1.0
Other Peanut growing states*	1.0
*For heavy weed infestations especially <i>Texas panicum</i> , up to 1.6 quarts of this product per acre can be used in Alabama, Florida or Georgia.	

Use Restriction on Peanuts:

- Not for use in California.

PERENNIAL GRASSES GROWN FOR SEED PRODUCTION

This product may be applied to established (defined as planted in the Fall or Spring which has gone through a first cutting/mowing) warm-season perennial grasses (including Bermudagrass, Switchgrass, and others) and to established (6 or more tillers per plant) cool-season perennial grasses (including Fine fescue, Kentucky bluegrass, Orchardgrass, Perennial ryegrass, Tall fescue, and others).

Methods of Application, Timing and Rates

- This product may be applied by ground, chemigation, air or on dry bulk fertilizer.

Chemigation Application: This product may be applied through sprinkler irrigation systems. Follow all directions, special instructions, and restrictions for chemigation under the "APPLICATION INSTRUCTIONS" section.

Warm and Cool-season Perennial Grasses

In warm-season perennial grasses, apply this product to post-harvest grass during the Fall or during Winter dormancy or after the first seed harvest/cutting. DO NOT apply to warm-season perennial grasses after greenup in the Spring before the first seed harvest/cutting. In cool-season perennial grasses, apply this product to post-harvest grass during regrowth at the beginning of significant Fall rains or in Spring.

Apply this product before target-weed germination. Uniformly apply at a broadcast rate of 2.1 to 4.2 quarts of this product per acre in a single application. This product may also be applied in two split applications, with one-half of the seasonal application rate applied in Fall or Winter followed by the remaining one-half of the seasonal application rate applied in Spring. DO NOT apply more than a maximum cumulative total of 4.2 quarts of this product per acre in any one crop season.

In warm-season and cool-season perennial grasses, use the high application rate of this product where more dense infestations of targeted annual grasses, annual broadleaf weeds or volunteer grass seedlings are anticipated or when a longer duration of residual weed control is desired. Excess grass straw and crop residue from the previous harvest should be evenly spread or removed by such methods as crew cutting, propane flaming or open field burning (when local regulations allow) before application of this product or reduced weed control may result.

This product may be applied in a sequential use program or as a tank mix with other registered herbicides that control emerged weeds.

Additional Weeds Controlled

In addition to the weeds listed in the "WEEDS CONTROLLED" table, this product applied before weed germination controls Annual bluegrass, Volunteer fescue, and Volunteer ryegrass.

Tank-Mixes

This product may be tank-mixed with Dimethenamid or with other herbicides labeled for use in perennial grasses grown for seed. If suitability is not known, test this product in tank-mixes on a small portion of the target crop to determine if damage is likely to occur. Consult your local dealer for local tank-mix options. If compatibility is not known, perform a mixing test to check the compatibility of this product with all potential tank-mix partners and fertilizers.

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank-mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank-mixture.

Use Precautions

- This product may cause temporary injury to perennial grass stands. Some stunting and chlorosis of perennial grasses may occur with post-emergence application.
- Application made in periods of cold temperatures that temporarily limit normal crop growth or in extended cold temperature periods that initiate Winter dormancy in grass crops may result in crop injury.
- Diseases, extremely cold weather, drought, extensive frost heaving, low or high pH, or salinity may weaken stands and make them more susceptible to herbicide damage.
- Application made after perennial grasses exceed 6 inches in height may result in poor weed control because of possible reduced spray coverage to the soil.
- Grass straw remaining after seed harvest of warm-season and cool-season perennial grasses may be used as livestock bedding, and/or grazed by or fed to livestock. The grower must notify the seed processor that there is no pesticide tolerance on grass seed screenings; therefore, it cannot be used in livestock feed.

Use Restrictions on Perennial Grasses Grown for Seed Production

- Do not apply if surface water is present in the field.
- Do not apply more than a maximum cumulative total of 4.2 quarts of this product per acre in any one crop season.
- Pre-harvest Interval (PHI) for seed of warm-season and cool-season perennial grasses: 90 days.

Note: There is no pre-harvest interval for grass forage or hay, or for livestock grazing after application of this product. Grass straw remaining after seed harvest of warm-season and cool-season perennial grasses may be used as livestock bedding, and/or grazed by or fed to livestock.

The grower must notify the seed processor that there is no pesticide tolerance on grass seed screenings. Therefore, it cannot be used in livestock feed.

POTATOES

Methods of Application, Timing and Rates

- This product may be applied by ground, air, chemigation or on dry bulk fertilizer (pre-emergence incorporated only).

Pre-emergence Application: Apply this product after planting but before Potatoes and weeds emerge or after drag-off.

Pre-emergence Incorporated Application: Apply this product and incorporate after planting but before Potatoes and weeds emerge. Where drag-off is practiced, apply this product and incorporate before, at, or after drag-off but before Potatoes and weeds emerge. Take precautions so that incorporation equipment does not damage seed pieces or elongating sprouts.

Early Post-emergence Application: Apply this product from crop emergence to the 6 inch stage of growth. Do not apply this product post-emergence if Potatoes are under stress from cold/wet or hot/dry conditions or crop injury may occur.

Chemigation Application: Apply this product pre-emergence after planting, after drag-off or early post-emergence through sprinkler irrigation systems. Follow all directions, special instructions, and restrictions for chemigation under the "APPLICATION INSTRUCTIONS" section.

Use Rates:

Soil Texture	Rate (Qts./Acre)	
	< 3% Organic Matter	> 3% Organic Matter
Coarse	0.75	0.75
Medium	1.0	1.5
Fine	1.5	1.5

Additional Weeds Controlled

In addition to the weeds listed in the "WEEDS CONTROLLED" table, this product will control the following weeds in Potatoes: Stinging nettle.

Use Precaution

- Application of this product on White Rose variety Potatoes during or followed by cool and/or wet weather conditions may result in crop injury.

Use Restrictions on Potatoes

- Do not apply to Sweet potatoes or Yams.
- Do not apply pre-plant.
- Do not make more than 1 application of this product per season.

RICE

Methods of Application, Timing and Rates

- This product may be applied by ground, air or on dry bulk fertilizer (delayed pre-emergence and early post-emergence applications only) to Rice grown under conventional-tillage, reduced-tillage, minimum-tillage, no-till systems or on stale seedbeds.
- The seedbed should be firm and free of clods and prepared to allow for good seed coverage. The use of a planter under conditions that do not allow good soil coverage of the Rice seed can result in reduced stand or stunting if this product contacts germinating Rice seed.
- Apply only when growing conditions favor vigorous Rice growth. The seedbed should have adequate moisture for seed germination.
- Uniformly apply the specified rate of this product after Rice planting and before Rice emergence (spiking) and weed germination. Apply after Rice seed has absorbed water and germinated and after the soil has been previously sealed over the seed by at least 1 inch of rainfall or by irrigation (flush). If the soil has not been sealed by rain or flush, apply when 80% of germinated seeds have a primary root (radicle) or shoot at least one-half inch long. If moisture is not sufficient, flushing before application of this product to supply moisture for root (radicle) initiation and for vigorous Rice and weed growth is advised.
- If applied to soil before these conditions, or to cracked soil, stand reduction or stunting of Rice may occur. Under some conditions, use of gibberellic acid treated seed, heavy rainfall after application or flushing after application may result in herbicide injury to Rice. Rice can overcome moderate injury with appropriate cultural practices. Because of the residual activity of this product, this treatment may be applied if Rice is too small to maintain a flood on the field for weed control. However, proper water management practices must be followed for normal Rice growth and activity of this product.

Early Post-emergence Application: Apply this product as a tank-mix partner in dry seeded Rice. Base applications on weed and crop size guidelines of the tank mix partner. DO NOT apply to fields with standing water. If necessary, fields may be flushed before treatment to produce vigorous Rice and weed growth. Because soil and weeds must be completely exposed to spray coverage, no flood water should be on the field at the time of application. Cloddy soil, standing water (puddles) at the time of application, or cracks in the soil that form after application may result in reduced weed control. Because of residual activity of this product, this treatment may be applied if Rice is too small to maintain a flood on the field for weed control. However, proper water management practices must be followed for normal Rice growth and activity of this product.

Post-emergence (California Water Seeded Rice Only): As a component of a comprehensive weed management program, apply this product alone or tank-mixed with a post-emergence herbicide after water seeded Rice has reached the 4 leaf to 6 leaf stage (spike plus 3 to 5 true leaves). Applications made before the 4 leaf Rice stage may result in crop injury.

Water seeded Rice must also be well rooted/pegged (i.e., standing erect after the flood is removed) before application. DO NOT apply to Rice that is leaning over and/or laying flat to the ground after flood removal since this is characteristic of a poorly established root system. Rice roots must be below the soil zone treated with this product. Injury, stunting, and/or stand reduction can occur if this product contacts the Rice roots.

Fields must be completely drained and free of standing water (moist/saturated soil) before application. If soil is saturated at the time of application, allow the soil surface to dry before restoring the permanent flood. This product requires alternate wetting/drying cycles to be activated. Weed control will be reduced if the soil surface is not allowed to dry out before restoration of the permanent flood. Resume normal water management practices after permanent flood restoration.

This product does not control weeds post-emergence. Tank-mix this product with a post-emergence herbicide to control emerged weeds at the time of application.

This product aids in control or suppression of the following weeds when used as part of a comprehensive weed management

program: Barnyardgrass, Redstem (suppression only), Smallflower umbrella sedge (suppression only), Sprangletop, early and late Watergrass (including biotypes resistant to other herbicide modes of action, e.g., Rice mimic).

In California water-seeded Rice, this product may be applied with aerial or ground application equipment.

AERIAL APPLICATION: Apply the specified rate of this product in 5 to 10 gallons of water per acre by air. If this product is applied as a tank-mix with another herbicide, ensure proper gallonage per acre according to label directions (i.e., 10 to 15 with propanil) is used for thorough coverage. To minimize drift, do not apply during periods of wind more than 10 mph, when wind conditions favor drift or if there is a temperature inversion. Use a flagman or an automatic mechanical flagging unit on the aircraft to avoid overlapping and possible crop injury.

GROUND APPLICATION: For ground equipment, apply the specified rate of this product in 10 to 20 gallons of water per acre. If this product applied as a tank-mix with another herbicide, ensure proper gallonage per acre according to label directions (i.e., 20 to 30 for Propanil) is used for thorough coverage. Use a calibrated low-pressure (20 to 40 psi) sprayer equipped with appropriate nozzles for uniform spray distribution and minimize drift. Keep the bypass line on or near the bottom of the tank to minimize foaming. Nozzle screens must be no finer than 50 mesh. Do not apply this product during periods of gusty winds or when wind velocity is more than 20 mph.

Post-emergence Tank-Mixes: To control emerged weeds at application, this product may be tank-mixed with one of the following post-emergence herbicides:

Bispyribac Cyhalofop Fenoxaprop	Orthosulfamuron Penoxsulam Propanil*	Triclopyr
*Observe all restrictions regarding Propanil-restricted zones.		

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank-mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank-mixture.

Use Restrictions on Water Seeded Rice:

- Do not apply this product before the 4 leaf Rice stage (spike plus 3 true leaves) or to Rice that is not well-rooted/pegged. Rice must be standing erect after the flood is removed and before application.
- Do not apply to fields with standing water.
- Do not apply this product through any type of irrigation system.
- Do not apply in liquid fertilizer.
- Do not spray target crop within 60 feet of sensitive crops (crops not listed on this label).
- Do not spray target crop within 60 feet of crops labeled for application with this product where the method of application, rate or timing of spray application is prohibited.
- Do not apply more than the maximum rate for any soil type in one season.
- Do not use water containing residues of this product from Rice cultivation to irrigate food or feed crops not registered for use with this product.
- In case of a crop failure because of weather conditions or disease after treatment with this product alone or in tank-mix, only drilled dry seeded Rice may be immediately replanted; however, the grower assumes all risks and consequences associated with replanting of rice because there is the potential for stand reduction or stunting. A 10% increase in seeding rate is advised. Replant seed below the herbicide layer because reduced stand or stunting may occur if this product contacts germinating Rice seed.
- Do not replant gibberellic acid treated seed.
- Do not reapply this product alone or in tank-mix.
- Do not apply to Rice that are stressed. Stress factors include cold or hot temperature extremes, excessive moisture or drought, problem soils, poor field drainage, or deep water after application.

Use Rates:

Delayed Pre-Emergence Application	
Soil Texture	Rate (Qts./Acre)
Sand, Loamy sand	DO NOT USE
Sandy loam	0.75
Loam, Silt loam, Silt, Sandy clay loam	1.0
Silty clay loam, Clay loam, Sandy clay, Silty clay, Clay	1.0

Early Post-Emergence Application	
Soil Texture	Rate (Qts./Acre)
Coarse	0.75
Medium	1.0
Fine	1.0

Post-Emergence Application in California Water Seeded Rice	
Soil Texture	Rate (Qts./Acre)
Coarse	0.75
Medium	1.0
Fine	1.0

Additional Weeds Controlled

In addition to the weeds listed in the "WEEDS CONTROLLED" table, this product will control the following weeds in Rice: Junglerice and Sprangletop.

Use Restrictions on Rice

- Do not apply this product through any type of irrigation system.
- Do not apply in liquid fertilizer.
- Not for use in grain drilled, dry seeded Rice in California.
- Do not apply to Rice fields if fields are used for fish production, especially catfish farming. (**Note:** This product may be applied to Rice fields used for crayfish production.)
- Do not use water containing residue of this product from Rice cultivation to irrigate food or feed crops not registered for use with this product.
- In case of crop failure because of weather conditions or disease after treatment with this product alone or in tank-mix, only drilled dry-seeded Rice may be immediately replanted; however, the grower assumes all risks and consequences associated with replanting of Rice because there is the potential for stand reduction or stunting. A 10% increase in seeding rate is advised. Replant seed below the herbicide layer because reduced stand or stunting may occur if this product contacts germinating Rice seed. DO NOT replant with gibberellic acid treated seed. DO NOT reapply this product alone or in tank-mix.
- Do not apply this product and then flush for germination.
- Do not apply to stressed Rice. Stress factors include cold or hot temperature extremes, excessive moisture or drought, problem soils, poor field drainage or deep water after application.
- Do not apply early pre-emergence or pre-plant incorporated because severe Rice injury is possible.

SAFFLOWER

Plant Safflower 1.5 to 2 inches deep and completely cover with soil. In California, plant Safflower deep enough to completely cover with soil.

Methods of Application, Timing and Rates

- This product may be applied by ground, air or on dry bulk fertilizer (only Fall and pre-plant incorporated applications).

Pre-plant Incorporated (All States) Application: Apply within 60 days of planting and incorporate.

Pre-plant Incorporated Application:

FALL APPLICATION IN MINNESOTA, MONTANA, NORTH DAKOTA, AND SOUTH DAKOTA - Apply this product and immediately incorporate in late Fall before planting Safflower the following Spring. Apply this product in the late Fall when soil temperatures are 45°F or below but before the ground freezes. DO NOT apply when air temperature is below 45°F. Before Safflower planting in the Spring, fields treated with this product should receive at least one shallow additional incorporation. Spring incorporation should be at an angle to the last tillage operation.

FALL APPLICATION IN CALIFORNIA - Apply this product and immediately incorporate during tillage operations in the Fall to target winter annual weeds before planting Safflower the following Spring. Before Safflower planting in the Spring, fields treated with this product should receive at least one additional incorporation.

Pre-emergence Application: Apply this product at planting or up to 2 days after planting. Pre-emergence application of this product to Safflower may increase the likelihood of crop injury, especially when crops are grown in stress situations, such as compacted soils. Decreased herbicide performance compared to pre-plant incorporated application may also result from a pre-emergence application. If dry conditions with limited precipitation exist or unseasonably cool temperatures after planting are forecast, apply this product before planting and mechanically incorporate with tillage. This product may be applied pre-emergence in conventional-tillage Safflower.

In California, pre-emergence application of this product to Safflower must be followed with irrigation or rainfall to establish a crop stand.

No-till Safflower: This product may be applied at 1.5 quarts per acre to 30 days before planting (pre-plant) to immediately after planting (pre-emergence). DO NOT use in California.

Use Rates:

Pre-Plant Incorporated, Pre-Emergence Applications			
Soil Texture	Southern States*	Northern States*	
		Rate (Qts./Acre)	
	Rate (Qts./Acre)	≤ 3% Organic Matter	> 3% Organic Matter
Coarse	0.75	1.0	1.0
Medium	1.0	1.25	1.5
Fine	1.5	1.5	1.5

*See map for specific States in the "USE AREA" section.

Pre-Plant Incorporated (Fall)*		
Soil Texture	Rate (Qts./Acre)	
	≤ 3% Organic Matter	> 3% Organic Matter
Coarse	1.25	1.25
Medium	1.5	1.75
Fine	1.75	1.75

*For use in California, Minnesota, Montana, North Dakota, and South Dakota only.

Use Restrictions on Safflower (All Tillage Types)

- Do not apply this product post-emergence.
- Do not apply more than the highest rate per acre for any soil type.
- Do not feed forage or graze livestock in treated safflower fields.

SOYBEANS

Methods of Application, Timing and Rates

- This product may be applied by ground, air or on dry bulk fertilizer (only Fall and pre-plant incorporated applications).
- This product may be applied to Soybeans grown under conventional-tillage, minimum-tillage or no-till systems.

Fall Applications: This product may be surface applied or incorporated in the Fall, after Fall harvest and prior to ground freeze in states North of I-80 and the entire states of Illinois, Indiana, Iowa, Kansas, Kentucky, Missouri, Nebraska, Ohio, Oklahoma, and Texas. Fall applications of this product will not provide season-long weed control.

Pre-plant Surface Application: Apply this product within 15 days of planting. This product may be applied within 45 days of planting when used in a tank-mix or applied sequentially with Glyphosate, Glyphosate + Imazethapyr, Imazethapyr, Imazamox.

Pre-plant Incorporated Application: Apply this product within 60 days of planting and incorporate.

Pre-emergence Application: Apply this product at planting or within 2 days after planting. Apply to a firm seedbed free of clods. Do not make applications of this product pre-emergence North of I-80 except in the states of Indiana, Michigan and Ohio.

Use Rates:

Fall Surface, Fall Incorporated, Pre-Plant Surface, Pre-Plant Incorporated Applications		
Soil Texture	Rate (Qts./Acre)	
	≤ 3% Organic Matter	> 3% Organic Matter
Coarse	0.75	1.0
Medium	1.25*	1.5
Fine**	1.5	1.5

*Do not exceed 1.05 quarts of this product per acre for Southern states. See map for specific States in the "USE AREA" section.
 **For heavy clay soils, apply this product at the broadcast rate of 1.6 quarts per acre.

Pre-Emergence Applications		
Soil Texture	Rate (Qts./Acre)	
	≤ 3% Organic Matter	> 3% Organic Matter
Coarse	0.75	0.75
Medium	1.0	1.0
Fine	1.0	1.25

Pre-Plant Incorporated Applications for Red Rice Control and Itchgrass Suppression	
Soil Texture	Rate (Qts./Acre)
	Up to 3% Organic Matter*
Coarse	1.5
Medium	1.5
Fine	2.0

*Do not use on soils with more than 3% organic matter.

Additional Weeds Controlled

In addition to the weeds listed in the "WEEDS CONTROLLED" table, this product will control or reduce competition from the following weeds in Soybeans: Itchgrass and Red Rice. (See "Use Rates" above for specific rates for these weeds.)

Use Restrictions on Soybeans

- Do not apply post-emergence on Soybeans or serious crop injury can result.
- Do not use this product in Soybeans in California.
- Pre-harvest Interval (PHI): 85 days.
- Do not exceed 1 application per crop season at the highest rate per acre for any given soil type and application method.

Note: Livestock can graze or be fed forage from treated Soybean fields.

SOYBEANS (EDAMAME)

Methods of Application, Timing and Rates

- This product may be applied only by ground.
- This product may be applied to vegetable Soybeans (Edamame) grown under conventional-tillage, minimum-tillage or no-till systems.

Pre-plant Surface Application: Apply this product within 15 days of planting. When used in tank-mix or applied sequentially with post-emergence herbicides, this product may be applied within 45 days of planting.

Pre-plant Incorporated Application: Apply this product within 60 days of planting and incorporate.

Pre-emergence Application: Apply this product at planting or up to 2 days after planting. Apply to a firm seedbed, free of clods. Do not apply this product pre-emergence North of I-80, except in the states of Indiana, Michigan, and Ohio.

Use Rates:

Pre-Plant Surface, Pre-Plant Incorporated Applications		
Soil Texture	Rate (Qts./Acre)	
	≤ 3% Organic Matter	> 3% Organic Matter
Coarse	0.75	1.0
Medium	1.25*	1.5
Fine**	1.5	1.5
*Do not exceed 1.05 quarts of this product per acre for Southern states. See map for specific States in the "USE AREA" section.		
**For heavy clay soils, apply this product at the broadcast rate of 1.6 quarts per acre.		

Pre-Emergence Applications		
Soil Texture	Rate (Qts./Acre)	
	≤ 3% Organic Matter	> 3% Organic Matter
Coarse	0.75	0.75
Medium	1.0	1.0
Fine	1.0	1.25

Use Restrictions for Soybeans (Edamame)

- Do not apply more than 1 application per crop season at the highest rate per acre for any given soil type and application method.
- Pre-harvest Interval (PHI): 85 days.
- Do not use in California.

Note: Livestock can graze or be fed forage from treated vegetable Soybean (Edamame) fields.

STRAWBERRIES AND OTHER LOW-GROWING BERRIES

This product may be applied to the following low-growing berries:

Bearberry	Cloudberry	Muntries
Bilberry	Cranberry	Partridgeberry
Blueberry, lowbush	Lingonberry	Strawberry

Methods of Application, Timing and Rates

- This product may be applied by ground, air or chemigation unless otherwise specified.
- Uniformly apply 0.75 to 1.5 quarts of this product per acre as a broadcast spray to the soil surface at pre-transplant time or post-transplant time (must be within 7 days of transplanting of rootstock in the Pacific Northwest). However, in areas where irrigation is used daily (frequently) after transplanting, apply this product just before the end of the watering regime to maximize weed control benefits of this product. Extended periods of irrigation may reduce residual control provided by this product.
- Applications of this product to row middles between the beds are allowed. DO NOT apply post-transplant if new foliage from rootstock is exposed to spray area. A second application of 0.75 to 1.5 quarts of this product per acre may be applied in a band to the soil between crop rows (or between the plastic beds) 35 days before harvest, but DO NOT CONCENTRATE THE RATE per acre into the treated area, and DO NOT allow spray to contact Strawberry or other low-growing berry plants. The second application rate is based on per unit of treated area.
- This product may also be applied in the Fall or Winter dormancy. Uniformly apply 0.75 to 1.5 quarts of this product per acre as a broadcast spray to the soil surface before onset of new seasonal growth from strawberry or other low-growing berry crowns. DO NOT apply if new seasonal growth (leaves) has emerged or is exposed.

- This product may also be applied to perennial Strawberries or other low-growing berries after renovation. Uniformly apply 0.75 to 1.5 quarts per acre of this product as a broadcast spray to the soil surface after renovation (mowing or other defoliation operation) when no foliage is exposed but before onset of new seasonal growth from Strawberry or other low-growing berry crowns. DO NOT apply if new seasonal growth (leaves) has emerged or leaves are exposed.

Chemigation Application: This product may be applied through sprinkler irrigation systems. Follow all directions, special instructions and precautions for chemigation under the "APPLICATION INSTRUCTIONS" section. Do not allow irrigation water treated with this product to contact Strawberry or other low-growing berry plants.

Use Rates:

Soil Texture	Broadcast Rate (Qts./Acre)
Coarse	0.75
Medium	1.0 to 1.25
Fine	1.25 to 1.5

Use Precaution

- Stunting, reduced growth, or reduction in daughter plants may occur with the use of this product in Strawberries and other low-growing berries.

Use Restrictions on Strawberries and Other Low-growing Berries

- Do not apply more than 1.5 quarts of this product per acre per application.
- Do not apply more than 3.0 quarts of this product per acre per season.
- Pre-harvest Interval (PHI): 35 days.
- Do not feed forage or graze livestock in treated fields.
- Do not plant Lettuce within 6 months after application of this product if Strawberry beds were covered with plastic.

Additional Use in Oregon and Washington in First Year Non-bearing Strawberries

Uniformly broadcast apply this product pre-emergence before transplanting Strawberries. DO NOT harvest for food or feed any portion of the Strawberry plant within 1 year (365 days) of application of this product. DO NOT apply this product through any type of irrigation system or by air.

Broadcast Use Rate for First Year Non-Bearing Strawberries		
Soil Texture	Rate (Qts./Acre)	
	≤ 3% Organic Matter	> 3% Organic Matter
Coarse	0.75 to 1.0	1.0 to 1.5
Medium	1.0 to 1.25	1.0 to 1.5
Fine	1.0 to 1.5	1.25 to 1.75

SUGARCANE

Methods of Application, Timing and Rates

- This product may be applied by ground or air.
- This product may be applied pre-emergence through lay-by to plant or ratoon Sugarcane. Although there may be adequate crop tolerance for post-emergence applications at lay-by, spray must be directed under the Sugarcane canopy to obtain effective weed control.

Use Rates:

Use Area	Broadcast Rate* (Qts./Acre)
All States except Hawaii	2.1 to 3.1
Hawaii	2.1 to 4.2
Muck soil (Florida only)	2.1 to 4.2

*Use the high rate if: i) Clay soils. ii) No mechanical incorporation is planned. iii) Heavy weed populations are anticipated. iv) Itchgrass infestation is anticipated. v) No shaving is planned.

Additional Use as Fallow Ground Application Only in Louisiana: Apply this product before weed germination to control annual weeds listed on this label plus Itchgrass (Raouigrass), seedling Johnsongrass, and *Panicum* spp. in pre-plant fallow ground Sugarcane. If necessary, control emerged weeds before application of this product with post-emergence herbicides and/or mechanical cultivation.

After cultivation and forming the beds in the Spring, apply this product at 2.6 quarts per acre using ground equipment. Sugarcane beds should be free of trash or clods at the time of application. If sufficient rainfall (0.5 to 0.75 inch) has not occurred within 7 days of application, perform a shallow incorporation (1 to 2 inches) with an additional pass of a Lilliston-type Lely Roterra™ cultivator set to cut 2 or 3 inches deep. A minimum interval of 60 days between application of this product and planting of Sugarcane is required or crop injury may occur. After planting, apply this product to Sugarcane pre-emergence through lay-by, but DO NOT apply more than 6.25 quarts of this product per acre during one growing season.

Non-cropped Water Drainage Areas Application Only in Louisiana: Apply this product before weed germination to non-irrigated, non-cropped water drainage areas (ditch banks) adjacent to Sugarcane fields. If necessary, control emerged weeds before application of this product with post-emergence herbicides and/or mechanical cultivation.

Apply this product at 2.6 to 3.5 quarts per acre using ground equipment. DO NOT apply this product below the high water mark or when water is present in the drainage area (ditchbank). DO NOT apply more than 6.25 quarts of this product per acre during one growing season.

Areas in Hawaii Subject to High Winds: For wind speeds between 10 to 20 mph, DO NOT apply in a manner that allows spray to drift from the application target site. Use drift mitigating measures, such as lowering the spray boom; use coarse spray according to ASAE 572 definition for standard nozzles; use hooded or shielded sprayers; use spray drift retardants or use any other measures known to control drift.

Use Precautions

Ratoon sugarcane must be lightly shaved in early Spring to remove the old stubble before incorporation over the line of Sugarcane is possible. Carefully adjust equipment to incorporate without causing excessive damage to emerging shoots.

Use Restrictions on Sugarcane

- Do not exceed 6.25 quarts of this product per acre in one growing season.
- Do not use less than 11 gallons of water as a carrier when applying this product for weed control.
- Do not make aerial applications at close-in because complete and uniform coverage cannot be obtained.
- Do not apply through any type of irrigation system.
- Pre-harvest Interval (PHI): 90 days.
- Do not graze treated fields or feed treated forage or fodder to livestock.

SUNFLOWER AND OTHER GROUP 20B OILSEEDS

This product may be applied to the following Oilseed crops:

Calendula Castor oil plant Chinese tallowtree Euphorbia Evening primrose	Jojoba Niger seed Rose hip Stokes aster Sunflower	Tallowwood Tea oil plant Vernonia
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Note: Plant Sunflower and other Group 20B oilseeds 1.5 to 2 inches deep and completely cover with soil.

Methods of Application, Timing and Rates

- This product may be applied by ground, air, or on dry bulk fertilizer (only Fall and pre-plant incorporated applications).

Pre-plant Incorporated (Spring Application) (All States): Apply up to 60 days prior to planting and incorporate.

Pre-plant Incorporated (Fall Applications) (Minnesota, North Dakota and South Dakota): Apply this product and immediately incorporate in late Fall prior to planting Sunflower or oilseeds the following Spring. Apply this product in the late

Fall when soil temperatures are 45°F or below but before the ground freezes. Do not apply when air temperature is below 45°F. Prior to planting Sunflowers or oilseeds in the Spring, fields treated with this product should receive at least one shallow additional incorporation. Spring incorporation should be at an angle to the last tillage operation.

Pre-emergence Application: Apply this product at planting or up to 2 days after planting. Pre-emergence applications of this product to Sunflower or oilseeds may increase the likelihood of crop injury especially when they are grown in stress situations such as compacted soils. Decreased herbicide performance compared to pre-plant incorporated applications may also result from a pre-emergence application. If dry conditions with limited precipitation exist or unseasonably cool temperatures following planting are forecasted, apply this product prior to planting and mechanically incorporate with tillage. This product may be applied pre-emergence in conventional tillage Sunflower or other Group 20B oilseeds, except in California.

No-till Sunflower or other Group 20B Oilseeds: This product may be applied at 1.5 quarts per acre up to 30 days before planting (pre-plant) to immediately after planting (pre-emergence). DO NOT use in California.

Use Rates:

Pre-Plant Incorporated (Spring), Pre-Emergence (Conventional Tillage) Applications			
Soil Texture	Southern States*	Northern States	
	Rate (Qts./Acre)	Rate (Qts./Acre)	
		≤ 3% Organic Matter	> 3% Organic Matter
Coarse	0.75	1.0	1.0
Medium	1.0	1.25	1.5
Fine	1.5	1.5	1.5

*See map of specific States under the "USE AREA" section.

Pre-Plant Incorporated (Fall) Application*		
Soil Texture	Rate (Qts./Acre)	
	≤ 3% Organic Matter	> 3% Organic Matter
Coarse	1.25	1.25
Medium	1.5	1.75
Fine	1.75	1.75

*For use in Minnesota, North Dakota, and South Dakota only.

Use Restrictions on Sunflowers and Other Group 20B Oilseeds (All Tillage Types)

- Do not apply this product post-emergence.
- Do not feed forage or graze livestock in treated Sunflower or other Group 20B oilseeds fields.

TOBACCO

Methods of Application, Timing and Rates

- This product may be applied only by ground.

Pre-plant Incorporated Application: Apply and incorporate within 60 days of transplanting Tobacco. Applied according to directions and under normal growing conditions, this product will not harm transplanted Tobacco. Under stress conditions for plant growth such as cold/wet or hot/dry weather, this product can produce a temporary retardation of Tobacco development.

Lay-by Application: This product may be applied as a directed spray following the last normal cultivation (lay-by), usually 4 to 6 weeks after transplanting Tobacco. Apply this product in a 16 to 24 inch band between the crop rows. Do not allow spray to contact Tobacco plants.

Use Rates:

Pre-Plant Incorporated Application		
Use Area	Soil Texture	Rate (Qts./Acre)
Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia	Coarse	1.0
	Medium: Sandy clay loam, Loam	1.0
	Medium: Silt loam, Silt	1.25
	Fine	1.25
Other States	Coarse	1.0
	Medium	1.5
	Fine	1.5

Lay-by Application	
Soil Texture	Rate (Qts./Acre)
Coarse	0.75
Medium	1.0
Fine	1.0

Use Restrictions on Tobacco

- Do not apply as a broadcast spray as contact may cause malformed Tobacco leaves.

WHEAT AND TRITICALE**Methods of Application, Timing and Rates**

- This product may be applied by ground, air, chemigation or on dry bulk fertilizer (only delayed pre-emergence and post-emergence applications).
- This product may be applied pre-emergence, delayed pre-emergence or post-emergence in Fall-seeded, Winter-seeded or Spring-seeded Wheat or Triticale.

Apply to a seedbed that is firm and free of clods and trash. Prepare the seedbed to ensure good seed coverage by the soil and seed-to-soil contact. Use high quality seed. When applications of this product are intended to be made pre-emergence or delayed pre-emergence, plant seed at least 1 inch deep to avoid possible crop injury, but not too deep for proper germination. When applications of this product are intended to be made post-emergence, plant seed at least 0.5 to 1.0 inch to avoid crop injury.

Uniformly apply this product as a pre-emergence, delayed pre-emergence (after Wheat or Triticale seed has germinated) or post-emergence treatment from the 1st leaf stage of Wheat or Triticale until before the flag leaf is visible/emerged for weed control. Apply before weed germination. Emerged weeds will not be controlled by this treatment.

For control of established weeds, this product may be tank-mixed with any post-emergence herbicide registered for use in Wheat or Triticale. This product provides residual control of the weeds listed in this label. If compatibility is not known, perform a mixing test to check the compatibility of this product with other potential tank-mix partner(s).

Use Rates:

Soil Texture	Southern States* Rate (Qts./Acre)	Northern States* Rate (Qts./Acre)
Coarse	0.75 to 1	0.75
Medium	0.75 to 1.5	0.75 to 1.25
Fine	1 to 1.5	1.0 to 1.5

*See map of specific states under the "USE AREA" section.

In Wheat stubble, this product may be applied in the Fall, Spring or early Summer during the fallow period after Wheat harvest as a planned residual treatment to control labeled broadleaf and grass weeds. Apply this product in tank-mixture with Glyphosate to control emerged weeds. There must be at least 4 months interval between fallow application of this product and rotational planting of any Fall-seeded cereal crops. Apply up to, but not more than 1.5 quarts of this product per acre in any fallow application. Do not make more than 1 application of this product during a single fallow period before rotational

planting of any Fall-seeded cereal crops. Follow rotational crop restrictions when planting a rotational crop after a fallow application of this product.

Use Restrictions on Wheat and Triticale

- Do not apply more than 1.5 quarts of this product per acre per season.
- Pre-Harvest Interval (PHI) for grain or straw: 60 days.
- Pre-harvest Interval (PHI) for hay: 28 days.
- Pre-harvest Interval (PHI) for forage: 11 days.

Note: If loss of grain crop occurs, any crop registered for this product pre-plant incorporated use may be replanted the same year without adverse effects. Do not replant Wheat or Triticale.

TURFGRASSES, ORNAMENTALS, LANDSCAPES OR GROUND MAINTENANCE, NON-BEARING FRUIT AND NUT TREE NURSERIES, CONIFER AND HARDWOOD SEEDLING NURSERIES, TREE PLANTATIONS, AND NON-CROPLAND AREAS.

USE RESTRICTIONS

- Do not apply this product through any type of irrigation system.
- Do not apply this product in greenhouses, shade houses or other enclosed structures.
- Not for use for commercial seed production.

WEEDS CONTROLLED

This product is used for pre-emergence control of the weeds listed below. This product will not control established weeds. If weeds should develop prior to activation of herbicide, shallow cultivate to destroy existing weeds or where practical, remove by hand. When cultivating for any reason, it should be shallow. This product may be used in conjunction with herbicides registered for post-emergence use Glyphosate or Glufosinate for the control of established weeds. Do not apply sprays containing Glyphosate or Glufosinate over-the-top of desirable plants. Application of this product may be followed by any registered herbicide to control weeds not listed on this label.

Efficacy of this product will be improved if the application is followed by one-half inch of rainfall or its equivalent in sprinkler irrigation. Erratic weed control may result if this product is not activated by rainfall or irrigation within 30 days.

Common Name	Scientific Name
Barnyardgrass	<i>Echinochloa crus-galli</i>
Bluegrass, annual	<i>Poa annua</i>
Burweed, lawn	<i>Soliva pterosperma</i>
Carpetweed	<i>Mollugo verticillata</i>
Chickweed, common	<i>Stellaria media</i>
Chickweed, mouseear	<i>Cerastium vulgatum</i>
Clover, hop	<i>Trifolium procumbens</i>
Crabgrass	<i>Digitaria</i> spp.
Crowfootgrass	<i>Dactyloctenium aegyptium</i>
Cudweed	<i>Gnaphalium</i> spp.
Eveningprimrose	<i>Oenothera biennis</i>
Fiddleneck	<i>Amsinckia intermedia</i>
Filaree	<i>Erodium</i> spp.
Foxtail, giant	<i>Setaria faberi</i>
Foxtail, green	<i>Setaria viridis</i>
Foxtail, yellow	<i>Setaria glauca</i>
Goosegrass	<i>Eleusine indica</i>
Henbit	<i>Lamium amplexicaule</i>
Itchgrass	<i>Rottboellia exaltata</i>
Johnsongrass (from seed)	<i>Sorghum halepense</i>
Junglerice	<i>Echinochloa colona</i>
Knotweed, prostrate	<i>Polygonum aviculare</i>
Kochia	<i>Kochia scoparia</i>
Lambsquarters	<i>Chenopodium album</i>
Lovegrass (from seed)	<i>Eragrostis</i> spp.
Panicum, browntop	<i>Panicum fasciculatum</i>
Panicum, Fall	<i>Panicum dichotomiflorum</i>

Panicum, Texas Pigweed Puncturevine Purslane Pusley, Florida Rocket, London Sandbur, field Shepherdspurse Signalgrass Smartweed, Pennsylvania Speedwell, corn Sprangletop, Mexican Sprangletop, red Spurge, annual Spurge, prostrate Velvetleaf (buttonweed) Witchgrass Woodsorrel, yellow Woolly cupgrass	<i>Panicum texanum</i> <i>Amaranthus</i> spp. <i>Tribulus terrestris</i> <i>Portulaca oleracea</i> <i>Richardia scabra</i> <i>Sisymbrium irio</i> <i>Cenchrus incertus</i> <i>Capsella bursa-pastoris</i> <i>Brachiaria platyphylla</i> <i>Polygonum pennsylvanicum</i> <i>Veronica arvensis</i> <i>Leptochloa uninervia</i> <i>Leptochloa filiformis</i> <i>Euphorbia</i> spp. <i>Euphorbia humistrata</i> <i>Abutilon theophrasti</i> <i>Panicum capillare</i> <i>Oxalis stricta</i> <i>Eriochloa villosa</i>
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USE SITES

TURFGRASS SITES

This product is used as a selective soil applied herbicide for pre-emergence control of most annual grasses and certain broadleaf weeds as they germinate in Turfgrass sites: golf courses, lawns, sod farms, and other turf areas.

LANDSCAPE ORNAMENTAL MAINTENANCE AREAS

This product is used as a selective soil applied herbicide for pre-emergence control of most annual grasses and certain broadleaf weeds as they germinate in the following landscape ornamental maintenance areas: grounds or lawns around residential and commercial establishments, multi-family dwellings, military and other institutions, parks, airports, roadsides, schools, picnic grounds, athletic fields, houses of worship, cemeteries, golf courses, prairie grass areas, and sod farms.

GENERAL GROUND MAINTENANCE

This product can be applied for general grounds maintenance in the following areas: parking lots, driveways and roadsides, alleyways, bike and jogging paths, vacant lots, buildings, stone gardens and gravel yards, markers and fence lines, and mulch beds. It may be used under asphalt or concrete treatments as part of a site preparation program.

NON-CROPLAND AREAS

This product can be used in the following non-crop areas: railroad, utility, highway, pipeline rights-of-way; highway guardrails, delineators and sign posts; bridge abutments and approaches; utility substations; petroleum tank farms; pumping installations; storage areas; fence rows; windbreaks and shelterbelts; paved or gravel surfaces; and established Wildflower plantings where weed control is desired.

BULB PLANTINGS, NON-BEARING FRUIT AND NUT TREE NURSERIES, CONIFERS AND HARDWOOD SEEDLING NURSERIES, AND TREE PLANTATIONS FOR SITE PREPARATION AND MAINTENANCE

This product can also be used in bulb plantings, non-bearing fruit and nut trees, conifers, hardwood seedling nurseries and tree plantations for site preparation and maintenance. Applications of this product can be made to plant species listed on this label: trees, shrubs, groundcovers, perennials, bulbs, ornamental grasses, and bedding plants.

IN AND AROUND FIELD LINER AND CONTAINER ORNAMENTAL PRODUCTION

This product can be used in field liner and container ornamental production.

MIXING INSTRUCTIONS

Ground Driven Sprayer

1. Fill tank one-half to three-quarters full with clean water.
2. Add this product to the partially filled tank while agitating and then fill the remainder of the tank with water.

3. Maintain continuous agitation while adding this product and until spraying is completed. If the spray mixture is allowed to settle for any period of time, thorough agitation is essential before spraying is resumed. Continue agitation while spraying.
4. If this product is to be used in tank-mixtures with other registered herbicides, then follow directions on the labels of those products which recommend tank-mixing.

Backpack Sprayer

1. Begin with a clean spray tank.
2. Fill the spray tank one-half full with clean water and add the required amount of this product to the sprayer.
3. Cap sprayer and agitate to ensure mixing.
4. Uncap sprayer and finish filling tank to desired level.
5. Cap sprayer and agitate once again.

During application it is desirable to agitate the mixture on occasion to ensure mixing. If the spray mixture is allowed to settle for any period of time, thorough agitation is essential before spraying is resumed.

Liquid Fertilizers

Always test small quantities using a simple jar test before mixing. Add the required amount of this product to half-filled spray tank while agitating, then add the fertilizer product. Complete filling spray tank to desired level.

Dry Bulk Fertilizers

This product may be applied onto dry bulk fertilizers.

For additional mixing instructions, refer to the section "*TANK-MIXING INFORMATION*" found at the beginning of this label.

SPRAYING INSTRUCTIONS

Uniformly apply with properly calibrated ground equipment in sufficient water per acre to uniformly treat the area with a spray pressure of 20 to 50 psi. Suggested spray volumes are 20 to 200 gpa for professional Turfgrass, landscape and ornamental applications, and 10 to 200 gpa for the following non-crop applications: roadsides, utility rights-of-way or soft-residual bare ground applications. Maintain continuous agitation during spraying with good mechanical or bypass agitation. Avoid overlaps that will increase rates above those specified.

Avoid application when winds may cause drift. Avoid unintentional contact of spray solution with driveways, stone, wood, or other porous surfaces. Rinse immediately with water to avoid staining. Avoid mechanically scrubbing until surface area is thoroughly rinsed. Treated Turfgrass should be dry before entering to avoid staining onto non-treated surfaces.

Aerial Application

Uniformly apply in 5 or more gallons of water per acre. Exercise precaution to minimize drift. DO NOT apply during periods of gusty winds or when wind conditions favor drifting. Spray drift can cause injury to sensitive crops. Use a flagman or an automatic mechanical flagging unit on the aircraft to avoid overlapping and possible crop injury.

TURFGRASSES

Use this product for pre-emergence control of grasses and certain broadleaf weed species as they germinate in any Turfgrass site (golf courses, lawns, sod farms and other turf areas) and landscape ornamental maintenance areas. Examples of such sites include, but are not limited to: grounds or lawns around residential and commercial establishments, multifamily dwellings, military and other institutions, parks, airports, roadsides, schools, picnic grounds, athletic fields, houses of worship, cemeteries, golf courses; prairie grass areas, and sod farms.

Efficacy of this product will be improved if the application is followed by one-half inch of rainfall or its equivalent in sprinkler irrigation. If this product is not activated by rainfall or irrigation within 30 days, erratic weed control may result.

To prevent establishment of weeds along the edges of treated area, it may be necessary to overlap the spray 3 to 6 inches onto sidewalks or driveways, etc., to ensure effective application rates in these especially vulnerable sites. Where temporary discoloration of pavement is to be avoided, do not rub or scrub surface. Rinse area immediately using a heavy spray of water to avoid staining. Treated Turfgrass should be dry before entering to avoid staining onto non-treated surfaces.

Type of Turfgrass	Weeds Controlled	Rate of This Product*	
		Qts./Ac.	Fl. Ozs./1000 sq. ft.
Cool-season Grasses: Fescue (fine) Fescue (tall) Kentucky bluegrass Perennial ryegrass	All Turf Uses: Barnyardgrass, Crabgrass, Evening primrose, Fall panicum, Foxtail, Hop clover, Knotweed, Oxalis, <i>Poa annua</i> , Prostrate spurge, Purslane	1.5 to 2.1	1.1 to 1.6
	USE INSTRUCTIONS: Use as initial application prior to weed germination in Spring. Repeat application using 1.1 to 1.5 qts./Ac. (0.86 to 1.1 fl. ozs./1000 sq. ft.) after 5 to 8 weeks for extended control or when heavy weed infestations are expected.		
	Residential Turf** and Sod Farm Turf Uses Only: Goosegrass	1.5 to 2.1	1.1 to 1.6
	USE INSTRUCTIONS: Use as initial application prior to weed germination in Spring. If the lower rate was used initially or for extended control after 5 to 8 weeks, repeat application at 1.5 qts./Ac. (1.1 fl. ozs./1000 sq. ft.).		
	Golf Course, Commercial and Other Non-Residential Turf Uses Only: Goosegrass	1.5 to 3.15	1.1 to 2.3
	USE INSTRUCTIONS: Use as initial application prior to weed germination in Spring. Repeat application at 1.5 qts./Ac. (1.1 fl. ozs./1000 sq. ft.) if the lower rate was used initially or for extended control after 5 to 8 weeks,.		
	All Turf Uses: Chickweed, Corn speedwell, Cudweed, Henbit, Lawn burweed, <i>Poa annua</i>	1.5 to 2.1	1.1 to 1.6
	USE INSTRUCTIONS: Apply in late Summer or early Fall prior to weed germination. Repeat application at 1.5 to 2.1 qts./Ac. (1.1 to 1.6 fl. ozs./1000 sq. ft.) after 5 to 8 weeks for extended control of <i>Poa annua</i> .		
Cool-season Grasses: Bentgrass or Established <i>Poa annua</i> (0.5 inch high or taller)***	All Turf Uses (Except Greens and Tees): Barnyardgrass, Crabgrass, Evening primrose, Fall panicum, Foxtail, Hop clover, Knotweed, Oxalis, <i>Poa annua</i> , Prostrate spurge, Purslane	1.5	1.1
	USE INSTRUCTIONS: Use as initial application prior to weed germination in Spring. Repeat application at 1.1 to 1.5 qts./Ac. (0.86 to 1.1 fl. ozs./1000 sq. ft.) after 8 weeks for extended control or where heavy weed infestations are expected.		
	All Turf Uses (Except Greens and Tees): Goosegrass	1.5	1.1
	USE INSTRUCTIONS: Apply prior to weed germination in Spring. Repeat application at 1.5 qts./Ac. (1.1 fl. ozs./1000 sq. ft.) for extended control after 5 to 8 weeks.		
	All Turf Uses (Except Greens and Tees): Chickweed, Corn speedwell, Cudweed, Henbit, Lawn burweed, <i>Poa annua</i>	1.5 to 2.1	1.1 to 1.6
	USE INSTRUCTIONS: Apply in late Summer or early Fall prior to weed germination.		

Warm-season Grasses: Bahiagrass Bermudagrass Buffalograss Centipedegrass Fescue (Tall) St. Augustinegrass Zoysiagrass	Residential* and Sod Farm Turf Uses Only: Barnyardgrass, Crabgrass, Evening primrose, Fall panicum, Foxtail, Hop clover, Knotweed, Oxalis, <i>Poa annua</i> , Prostrate spurge, Purslane	1.5 to 2.1	1.1 to 1.6
	USE INSTRUCTIONS: Use as initial application prior to weed germination in Spring. Repeat application at 1.1 to 1.5 qts./Ac. (0.86 to 1.1 fl. ozs./1000 sq. ft.) after 5 to 8 weeks if necessary.		
	Golf Course, Commercial and Other Non-residential Turf Uses Only: Barnyardgrass, Crabgrass, Evening primrose, Fall panicum, Foxtail, Hop clover, Knotweed, Oxalis, <i>Poa annua</i> , Prostrate spurge, Purslane	1.5 to 3.15	1.1 to 2.3
	USE INSTRUCTIONS: Use as initial application prior to weed germination in Spring. Repeat application at 1.1 to 1.5 qts./Ac. (0.86 to 1.1 fl. ozs./1000 sq. ft.) after 5 to 8 weeks if necessary.		
	All Turf Uses (Except Greens and Tees): Goosegrass	1.5	1.1
	USE INSTRUCTIONS: Apply prior to weed germination in Spring. Make a second application 6 to 8 weeks later. For extended control, an additional application can be made 8 weeks after the second application.		
	All Turf Uses: Chickweed, Corn speedwell, Cudweed, Henbit, Lawn burweed, <i>Poa annua</i>	1.5 to 2.1	1.1 to 1.6
USE INSTRUCTIONS: Apply in late Summer or early Fall prior to weed germination. Repeat after 5 to 8 weeks for extended control of <i>Poa annua</i> .			
*Do not exceed a maximum of 2.1 qts./Ac. (1.6 fl. ozs./1000 sq. ft.) per application for use on residential and sod farm Turfgrass. Do not exceed a maximum rate of 3.15 qts./Ac. or 2.3 fl. ozs./1000 sq. ft. per application for use on golf course, commercial or other non-residential Turfgrass. **Residential turf is defined as turf in any residential situation as well as home lawns, schools, parks, and playgrounds. *** Do not use on Bentgrass or <i>Poa annua</i> greens or tees.			

THIS PRODUCT IN TANK-MIXTURE

This product can be tank-mixed with post-emergence herbicides to control emerged weeds in non-residential Turfgrass.

For control of annual grass, this product can be tank-mixed with Fenoxaprop, Quinclorac or MSMA.

For control of broadleaved weeds, this product can be tank-mixed with 2,4-D + Mecoprop + Dicamba, 2,4-D and other similar products.

If compatibility with this product is not known, before tank-mixing, perform a simple jar test to ensure compatibility of herbicides.

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank-mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank-mixture.

USE PRECAUTIONS

- Use on well-established Turfgrass with a dense and uniform stand.
- On turf that has been thinned or damaged due to Winter injury, excessive moisture, etc., allow turf to recover prior to application.
- On newly planted areas, application should not be made until the Turfgrass has filled in and has been mowed at least four times.

- Applications made to over-seeded warm-season Turfgrasses may cause thinning or injury of the over-seeded species.
- Delay reseeding or Winter over-seeding of treated Turfgrass for at least 3 months following the last application of this product
- Delay sprigging Turfgrass for 5 months after application of this product.

USE RESTRICTION

Do not use on Bentgrass or *Poa annua* greens and tees or injury may occur.

APPLICATION USING HANDHELD SPRAY EQUIPMENT

To determine the amount of this product to apply per 1000 square feet using handheld spray equipment, use the table under the “TURFGRASS” section.

The amount of water used for the application is not critical but should be sufficient for thorough coverage without runoff.

Calibration of backpack or other handheld equipment will vary with each operator. Determine the amount of water needed to treat 1000 square feet before mixing the spray solution. Follow the information in the “MIXING INSTRUCTIONS” section of this label.

LANDSCAPE AND GROUND MAINTENANCE

This product can be incorporated into landscape and ground maintenance programs to provide extended pre-emergence control of most annual grasses and certain broadleaf weeds. Areas to be treated, fence lines and borders, mulch beds, parking areas and roadsides, and around statuary or monuments should be free of emerged weeds before application. To remove emerged weeds, either cultivate or tank-mix this product with a post-emergence herbicide labeled for such use.

Not all ornamental species or cultivars of species can be tested for plant safety. Refer to the list of ornamental plant species found in the “ORNAMENTALS” section. This product may be used on plant species not listed on this label. However, testing a small number plants at the specified rate and evaluating for suitability before a broad-use application of this product is advised. Refer to the table below for application rates.

Avoid unintentional contact of spray solution with stone, wood or other porous surface because staining may occur. Rinse surfaces immediately using a heavy spray of water to avoid staining.

Weed Control in All Non-Turfgrass Sites*

Pre-Emergence Control of Listed Weeds**		
Length of Control (Months)	This Product (Qts./Acre)	This Product (Fl. Ozs./1000 Sq. Ft.)
Short term (2 to 4)	2.1	1.6
Long term (6 to 8)	4.2	3.2

*For all Turfgrass weed control rates, refer to the table found in the “TURFGRASSES” section of this label.
 **For extended control of weeds listed on this label, repeat applications can be made with this product.

ORNAMENTALS AND TREE PLANTATIONS INCLUDING NON-CROPLAND AREAS

Use this product for grounds maintenance in non-cropland areas for pre-emergence control of the weed species listed on this label in established tree plantations for site preparation, and for maintenance of conifer and hardwood seedling nurseries and pulpwood and fiber farms.

This product may be used for hardwood and conifer regeneration on conservation reserve program (CRP) land. This product can also be used in Christmas trees and non-bearing fruit and nut crops and established vineyards, or bulb and Wildflower field plantings, in established ornamentals planted in non-cropland areas including highway rights-of-way and utility substations.

Refer to the table “Weed Control in All Non-Turfgrass Sites*” found in the “LANDSCAPE AND GROUND MAINTENANCE” section for application rates.

APPLICATIONS AT PLANTING OR TO ESTABLISHED TREES

When applying at planting, it is important to achieve slit closure to prevent this product from directly contacting the tree roots or being washed into the root zone via the open slit, or root stunting may occur.

Refer to the “LANDSCAPE AND ORNAMENTAL PLANTINGS” table for instructions and restrictions before application of this product.

For post-emergence weed control, tank-mix this product with Glufosinate, Glyphosate, Sethoxydim or other herbicides labeled for this use. Refer to approved labeling for species recommendations. Determine rates for tank-mix compounds from the product labels of this product and partner herbicides before use. Use precaution to prevent combination sprays from direct contact with desirable foliage or injury may result. This product plus Diuron or Simazine combinations will broaden weed control spectrum. However, use of this combination may restrict the use of this product in sensitive areas.

It is the pesticide user’s responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank-mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank-mixture.

ORNAMENTAL BULBS

This product may be applied for control of susceptible annual weeds in ornamental bulbs listed in the “PERENNIALS” table found in the “ORNAMENTALS FOR COMMERCIAL PRODUCTION” section (e.g., Crocus, Daffodil [Narcissus], Gladiolus, Lily, Tulip, etc.). Apply this product before, during or after bulb emergence. If weeds have already germinated, add a labeled post-emergence herbicide to control emerged weeds.

WILDFLOWERS

This product may be applied for control of susceptible annual weeds in plantings of Wildflowers listed in the “PERENNIALS” table found in the “ORNAMENTALS FOR COMMERCIAL PRODUCTION” section. The perennial species noted “*” (e.g., Black-eyed Susan, Blanket flower, California poppy, Coreopsis, Indian blanket, Oxeye daisy, Purple coneflower, Shasta daisy, Tickseed, Yarrow) have been evaluated for plant tolerance to applications of this product at 2.1 quarts per acre.

This product may be applied to established perennial Wildflowers before emergence of weeds or Wildflowers. For Wildflowers being established from seed, apply this product no sooner than 4 weeks after Wildflowers have emerged, but before weed germination. If weeds have already germinated, add a labeled post-emergence product to control emerged weeds. It is the pesticide user’s responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank-mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank-mixture.

Due to the diversity of species and varieties that exist in areas where Wildflowers are grown, the response to this product may vary greatly. Test this product on desirable species to determine if area-wide applications can be made.

NON-BEARING FRUIT AND NUT CROPS AND VINEYARDS

This product may be applied for pre-emergence control of most annual grasses and certain broadleaf weeds on the following non-bearing crops:

Almond	Grape	Pistachio
Apple	Nectarine	Plum
Apricot	Olive	Prune
Cherry	Peach	Walnut (English)
Citrus	Pear	
Fig	Pecan	

NON-CROPLAND

Use this product for pre-emergence control of most annual grasses and certain broadleaf weeds as they germinate in the following non-cropland areas: railroad, utility, highway, and pipeline rights-of-way; highway guardrails, delineators, and sign posts; utility substations, petroleum tank farms, pumping installations, fence rows, storage areas, windbreaks and shelterbelts.

INDUSTRIAL (UNIMPROVED) TURF

This product will control annual grasses and broadleaf weeds listed “*WEEDS CONTROLLED*” and in “*TURFGRASSES*” sections of this label that might germinate in established grasses. Apply before weeds germinate.

To control established weeds, 2,4-D, MSMA, Quinclorac, Sethoxydim or similar post-emergence herbicides may be tank-mixed with this product. Apply according to label instructions for the respective products and follow the most restrictive label. It is the pesticide user’s responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank-mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank-mixture.

TOTAL VEGETATION CONTROL

This product tank-mixed with Diuron, Glufosinate, Glyphosate, Imazapyr, Imazapic, Sulfometuron or other products can provide bare ground or total vegetation control. This product can be used to provide greater plant selectivity in areas where such action may be desired. Such sites might have roots of landscape vegetation, ornamentals or desirable trees encroaching into the treated zone. Refer to tank-mix partner labels regarding effects on desirable plants. Do not tank mix with Imazapyr or Imazapic in California.

Applications may be made to existing weeds controlled by the partner herbicide. Determine the rates from the product labels prior to use. Follow the most restrictive label instructions.

It is the pesticide user’s responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank-mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank-mixture.

For Control of Kochia: Combine this product with Diuron or Imazapyr if control has been a problem for other herbicides.

LANDSCAPE AND ORNAMENTAL PLANTINGS

Use Site	Use Instructions and Restrictions*
Landscape plantings**	<ol style="list-style-type: none">1. Do not apply to newly transplanted ornamentals until plants have been watered and soil has been thoroughly packed and settled around roots.2. Apply as a directed or over-the-top spray.3. Use the lowest labeled rate when making applications to annuals. Repeat applications can be made for extended landscape weed control.
Ornamental bulbs***	<ol style="list-style-type: none">1. This product may be applied to bulb species listed on the label.2. Apply before bulb emergence.
Wildflowers***	<ol style="list-style-type: none">1. This product may be applied in plantings of Wildflowers listed on the label. Refer to specific instructions for rate and plant tolerance.2. For Wildflowers being established from seed, apply at 4 weeks after germination but before germination of weed seeds.
<p>*Plant only those desirable plant species listed on this label into soil treated the previous season with this product or injury may occur. **Before treating a large number of plants, spray a few plants and observe for 1 to 2 months for plant damage before full scale application. ***Do not treat plants grown for food or feed. Do not use treated plants for food or feed.</p>	

SPRAYING INSTRUCTIONS

Ground Application

Uniformly apply with properly calibrated ground equipment in spray volumes of 20 to 200 gpa for Ornamental applications to uniformly treat the area with a spray pressure of 25 to 50 psi. Maintain continuous agitation during spraying with good mechanical or bypass agitation. Avoid overlaps that will increase rates above those specified. Avoid application when winds may cause drift.

Avoid unintentional contact of spray solution with driveways, stone, wood or other porous surfaces. Rinse immediately with water to avoid staining. Avoid mechanically scrubbing until surface area is thoroughly rinsed using a heavy spray of water.

Handheld Spray Equipment Application: Refer to the table “*Weed Control in All Non-Turfgrass Sites**” under the “*LANDSCAPE AND GROUND MAINTENANCE*” section to determine the amount of this product to apply per 1000 square feet. The amount of water used for application is not critical, but should be sufficient for thorough coverage without runoff.

Calibration of backpack or other handheld equipment will vary with each operator. Determine the amount of water needed to treat 1000 square feet before mixing the spray solution. Follow the directions in the “*MIXING INSTRUCTIONS*” section of this label.

Aerial Application

Uniformly apply in 5 or more gallons of water per acre. Exercise precaution to minimize drift. DO NOT apply during periods of gusty winds or when wind conditions favor drifting. Spray drift can cause injury to sensitive crops. Use a flagman or an automatic mechanical flagging unit on the aircraft to avoid overlapping and possible crop injury.

ORNAMENTALS FOR COMMERCIAL PRODUCTION

This product can be used in field, liner, and container ornamental production. Sprays of this product are safe around and over-the-top of the established plants listed in the table “*TOLERANT ORNAMENTAL SPECIES*” below. However, not all varieties or strains of the plant species listed have been tested. Refer to the following “*ORNAMENTALS FOR COMMERCIAL PRODUCTION - INSTRUCTIONS AND RESTRICTIONS*” section before any application of this product. Unintentional consequences such as crop injury may result because of certain environmental or growing conditions, manner of use or application. Therefore, before treating a large number of plants, spray a few plants and observe for plant damage before full scale application of this product.

APPLICATION INSTRUCTIONS

This product will not control established weeds. Therefore, areas to be treated should be free of established weeds at the time of treatment. Alternatively, use this product with herbicides registered for post-emergence use in ornamentals and vegetation control sites. Consult the labels of the tank-mix partners for treatments, rates precautions and restrictions for use in these areas.

Efficacy of this product will improve if the application is followed by one-half inch of rainfall or its equivalent in sprinkler irrigation. If this product is not activated by rainfall or irrigation within 30 days, erratic weed control may result.

Applied according to label directions and under normal growing conditions, this product or tank-mix combinations of this product will not cause crop injury. Over-application can result in crop-stand loss, crop injury or soil residues. Uneven application can decrease weed control or cause crop injury.

Seedling diseases, cold weather, excessive moisture, high soil pH, high soil salt concentration or drought can weaken seedlings and plants and increase the possibility of plant damage from use of this product.

Application Rates: Refer to the table “*Weed Control in All Non-Turfgrass Sites**” under the “*LANDSCAPE AND GROUND MAINTENANCE*” section for application rates.

SPRAYING INSTRUCTIONS

Ground Application

Uniformly apply with properly calibrated ground equipment in spray volumes of 20 to 200 gpa for ornamental applications to uniformly treat the area with a spray pressure of 25 to 50 psi. Maintain continuous agitation during spraying with good mechanical or bypass agitation. Avoid overlaps that will increase rates above those specified. Avoid application when winds may cause drift.

Avoid unintentional contact of spray solution with driveways, stone, wood or other porous surfaces. Rinse immediately with water to avoid staining. Avoid mechanically scrubbing until surface area is thoroughly rinsed using a heavy spray of water.

Handheld Spray Equipment Application: Refer to the table “*Weed Control in All Non-Turfgrass Sites**” under the “*LANDSCAPE AND GROUND MAINTENANCE*” section to determine the amount of this product to apply per 1000 square feet. The amount of water used for application is not critical, but should be sufficient for thorough coverage without runoff.

Calibration of backpack or other handheld equipment will vary with each operator. Determine the amount of water needed to treat 1000 square feet before mixing the spray solution. Follow the directions in the “MIXING INSTRUCTIONS” section of this label.

Aerial Application

Uniformly apply in 5 or more gallons of water per acre. Exercise precaution to minimize drift. DO NOT apply during periods of gusty winds or when wind conditions favor drifting. Spray drift can cause injury to sensitive crops. Use a flagman or an automatic mechanical flagging unit on the aircraft to avoid overlapping and possible crop injury.

ORNAMENTALS FOR COMMERCIAL PRODUCTION - INSTRUCTIONS AND RESTRICTIONS

Site	Use Instructions and Restrictions ¹
Bareground for container placement	Apply to soil (including mulch, gravel, wood chips or other permeable base), then water in. Replace containerized ornamentals onto pad.
Established container or field-grown nursery stock ^{2,3}	<ol style="list-style-type: none"> 1. Do not apply during bud swell, bud break or at time of first flush of new growth. 2. Apply as a directed or over-the-top spray. 3. If newly budded or grafted rootstock, apply with a shielded sprayer. 4. Take care to ensure there are no cracks in the soil where this product could come into contact with the roots.
Greenhouses, shadehouses or other enclosed structures	Do not apply in greenhouses, shadehouses or other enclosed structures.
Newly transplanted field-grown nursery stock ^{2,3}	<ol style="list-style-type: none"> 1. Do not make over-the-top applications at time of field transplanting. Use shielded sprayer until plantings <i>have</i> been established for 1 year or more in the field. 2. Do not apply until transplants have been watered and soil has been thoroughly packed and settled around transplants. Take care to ensure there are no cracks in the soil where this product could come into contact with the roots. 3. Do not apply during bud swell, bud break, or at time of first flush of new growth. 4. Direct sprays away from grafted or budded tissue on transplants at all times.
Newly transplanted container-grown nursery stock ^{2,3}	<ol style="list-style-type: none"> 1. Do not apply until transplants <i>have</i> been watered and soil has been thoroughly packed and settled around transplants. Take care to ensure there are no cracks in the soil where this product could come into contact with the roots. 2. For container-grown ornamentals, delay first application of the product to bare root liners for 2 weeks after transplanting. 3. Do not apply during bud swell, bud break, or at time of first flush of new growth. 4. Direct sprays away from grafted or budded tissue on transplants at all times.
Ornamental bulbs ³	<ol style="list-style-type: none"> 1. This product may be applied to bulb species listed on the label. 2. Apply before bulb emergence.
¹ Plant only those desirable plant species listed on this label into soil treated the previous season with this product or injury may occur. ² Before treating a large number of plants, spray a few plants and observe for 1 to 2 months for plant damage before full scale application. ³ Do not treat plants grown for food or feed. Do not use treated plants for food or feed.	

THIS PRODUCT IN TANK-MIXTURES FOR USE IN ORNAMENTS FOR COMMERCIAL PRODUCTION

Emerged weeds in ornamentals can be controlled using tank-mixes containing Fluazifop, Glufosinate, Glyphosate, Ioxabenz, Sethoxydim, Simazine and other similar products. If compatibility with this product is not known, before tank-mixing, use a simple jar test to ensure compatibility of herbicides.

DO NOT apply sprays containing Glufosinate or Glyphosate over-the-top of ornamental plants.

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank-mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank-mixture.

CHRISTMAS TREE PLANTATIONS

Use this product in Christmas tree plantations at planting or to established trees. When applying at planting, it is important to achieve slit closure to prevent this product from directly contacting the tree roots or being washed into the root zone via the open slit or root stunting may occur.

For post-emergence weed control, tank-mix combinations of this product with Glufosinate, Glyphosate, Sethoxydim or other labeled herbicides are directed. Refer to approved labeling for listed species. Determine rates for tank-mix combinations from the product labels of this product and partner herbicides before use. Use precaution to prevent combination sprays from direct contact with desirable foliage or injury may result. This product plus Diuron or Simazine combinations will broaden weed control spectrum, however, use of these combinations may restrict the use of this product in sensitive areas. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank-mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank-mixture.

VEGETATION CONTROL IN ORNAMENTAL PRODUCTION

Use this product for pre-emergence control of most annual grasses and certain broadleaf weeds as they germinate on non-cropland areas including sign posts, pumping installations, fence rows, storage areas, windbreaks and shelterbelts.

This product may be tank-mixed with Glufosinate, Diuron, Glyphosate, Sethoxydim or other products to provide bareground or total vegetation control.

This product can be used to provide greater plant selectivity in areas where such action may be desired. Such sites might have roots of landscape vegetation, ornamentals or desirable trees encroaching into the treated zone. Refer to tank-mix partner labels regarding effects on desirable plants. Applications may be made to existing weeds controlled by the partner herbicide. Determine rates from the product labels before use. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank-mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank-mixture.

PLANT SPECIES

This product may be used on plant species not listed on this label. Determine the suitability for such uses by treating a small number of such plants at the specified rate. Evaluate treated plants 1 to 2 months following treatment for possible injury.

Sprays of this product are safe around and over-the-top of the established plants listed in the table "TOLERANT ORNAMENTAL SPECIES" below. However, not all varieties or strains of the plant species listed have been tested. Refer to the section "ORNAMENTALS FOR COMMERCIAL PRODUCTION - INSTRUCTIONS AND RESTRICTIONS" before any application of this product.

TOLERANT ORNAMENTAL SPECIES

BEDDING PLANTS	
Common Name	Scientific Name
Ageratum	<i>Ageratum houstonianum</i>
Alyssum*	<i>Alyssum saxatile</i>
Anemone, Poppy-flowered	<i>Anemone coronaria</i>
Artemesia	<i>Artemesia</i> spp.
Balloonflower	<i>Platycodon grandiflorum</i>
Begonia*	<i>Begonia</i> spp.
Cabbage, Ornamental	<i>Brassica oleracea</i>
Caladium	<i>Caladium</i> spp.
Cast-iron plant	<i>Aspidistra elatior</i>
China aster*	<i>Callistephus chinensis</i>
Crocasmia, Montebretia	<i>Crocasmia x crocosmiiflora</i>
Dahlia*	<i>Dahlia</i> spp.
Dianthus (Sweet William)	<i>Dianthus barbatus</i>
Dusty miller	<i>Senecio cineraria</i>

Gayfeather	<i>Liatriis</i> spp.
Gazania, Treasure flower	<i>Gazania rigens</i>
Gazania, Trailing	<i>Gazania rigens leucolaena</i>
Gloxinia	<i>Gloxinia simningia</i>
Kale, Ornamental	<i>Brassica naous</i>
Marigold, African	<i>Tagetes erecta</i>
Moss rose*	<i>Portulaca grandiflora</i>
Mum, Garden	<i>Chrysanthemum</i> spp.
Periwinkle, Rose	<i>Catharanthus roseus</i>
Petunia*	<i>Petunia</i> spp.
Plumosa cockscomb	<i>Celosia cristata</i>
Portulaca*	<i>Portulaca grandiflora</i>
Salvia*	<i>Salvia splendens</i>
Snapdragon	<i>Antirrhinum majus</i>
Statice*	<i>Limonium</i> spp.
Vinca*	<i>Vinca major</i>

* Do not apply this product sooner than 4 weeks after transplanting of these annuals. Use the lower labeled rate.

GROUNDCOVERS	
Common Name	Scientific Name
Ajuga	<i>Ajuga reptans</i>
Baby sun rose	<i>Aptenia cordifolia</i>
Beach strawberry	<i>Eragaria chiloensis</i>
Capeweed	<i>Arctotheca calendula</i>
Cinquefoil, Spring	<i>Potentilla verna</i>
Coyotebrush, dwarf	<i>Baccharis pitularis</i>
Daisy, Trailing African	<i>Osteospermum fruticosum</i>
Dymondia	<i>Dymondia margaretae</i>
Gazania	<i>Gazania splendens</i>
Iceplant, Large Leaf	<i>Carpobrotus edulis</i>
Ivy, English	<i>Hedera helix</i>
Ivy, Geranium	<i>Pelargonium peltatum</i>
Jasmine, Asiatic	<i>Trachelospermum asiaticum</i>
Jasmine, Primrose	<i>Jasminum mesnyn</i>
Jessamine, Carolina	<i>Gelsemium sempervirens</i>
Manzanita, Bearberry	<i>Arctostaphylos uva-ursi</i>
Miscanthus	<i>Miscanthus</i> spp.
Mondo grass	<i>Ophiopogon japonica</i>
Morningglory	<i>Convolvulus</i> spp.
Myoporum	<i>Myoporum parvifolium</i>
Pachysandra	<i>Pachysandra terminalis</i>
Potentilla	<i>Potentilla fruticosa</i>
Red apple	<i>Aptenia cordifolia</i>
Rosemary	<i>Rosemarinus officinalis</i>
Rose-of-Sharon	<i>Hypericum calycinum</i>
Sand strawberry	<i>Fragaria chiloensis</i>
Sedum	<i>Sedum spurium</i>
St. Johnsworth, Creeping	<i>Hypericum calycinum</i>
Stonecrop	<i>Sedum spurium</i>
Verbena, Peruvian	<i>Verbena peruviana</i>
Vervain	<i>Verbena peruviana</i>
Vetch, Crown	<i>Vicia sativa</i>
Vinca	<i>Vinca minor</i>
Wintercreeper	<i>Euonymous fortunei</i>

ORNAMENTAL GRASSES	
Common Name	Scientific Name
Beach grass	<i>Ammophila breviligulata</i>
Fescue, blue	<i>Festuca ovina</i>
Fescue, sheep	<i>Festuca ovina</i>
Fountain grass	<i>Pennisetum setaceum</i>
Pampas grass	<i>Cortaderia selloana</i>
Reed canary grass	<i>Phalaris arundinacea</i>
Reed, giant	<i>Arundo</i> spp.
Ribbon grass	<i>Phalaris arundinacea</i>
Tufted hair grass	<i>Deschampsia caespitosa</i>

ORNAMENTAL SHRUBS	
Common Name	Common Name
Abelia, glossy	<i>Abelia grandiflora</i>
Alder, witch	<i>Fothergilla gardenii</i>
Aucuba, gold	<i>Aucuba japonica</i>
Azalea	<i>Rhododendron</i> spp.
Bamboo, heavenly	<i>Nandina domestica</i>
Barberry	<i>Berberis gladwynensis</i>
Barberry, Japanese	<i>Berberis thunbergii</i>
Blue indigo bush	<i>Dalea gregii</i>
Bottlebrush, lemon	<i>Callistemon citrinus</i>
Boxwood, common	<i>Buxus sempervirens</i>
Boxwood, Japanese	<i>Buxus microphylla</i>
Brittlebush	<i>Encelia farinosa</i>
Buttonbush	<i>Cephalanthus occidentalis</i>
Camellia	<i>Camellia japonica</i>
Cape jasmine	<i>Gardenia jasminoides</i>
Cassia, feathery	<i>Cassia artemisioides</i>
Cordyline	<i>Cordyline</i> spp.
Correa	<i>Correa</i> spp.
Cotoneaster	<i>Cotoneaster apiculatus</i>
Cotoneaster, bearberry	<i>Cotoneaster dammeri</i>
Cotoneaster, rock	<i>Cotoneaster horizontalis</i>
Cypress, Italian	<i>Cupressus sempervirens</i>
Cypress, leyland	<i>Cupressocyparis leylandii</i>
Deutzia, slender	<i>Deutzia gracilis</i>
Dogwood, red twig	<i>Cornus sericea</i>
Elaeagnus	<i>Elaeagnus ebbingei</i>
Escallonia	<i>Escallonia fradesii</i>
Euonymus	<i>Euonymus fortunei</i>
Euonymus, golden	<i>Euonymus japonica</i>
Euonymus, winged	<i>Euonymus alata</i>
Firethorn	<i>Pyracantha coccinea</i>
Forsythia, border	<i>Forsythia intermedia</i>
Fragrant olive	<i>Osmanthus fragrans</i>
Fuschia, California	<i>Zauschneria californica</i>
Gardenia	<i>Gardenia jasminoides</i>
Hawthorne, Indian	<i>Raphiolepis indica</i>
Hibiscus	<i>Hibiscus syriacus</i>
Holly, Chinese	<i>Ilex cornuta</i>
Holly, Japanese	<i>Ilex crenata</i>
Holly, Fosters	<i>Ilex attenuata 'Fosteri'</i>
Holly, savannah	<i>Ilex attenuata</i>
Holly, yaupon	<i>Ilex vomitoria</i>
Honeysuckle, bush	<i>Diervilla lonicera</i>

Hopbush	<i>Dodonaea viscosa</i>
Hopseed bush	<i>Dodonaea viscosa</i>
Hydrangea	<i>Hydrangea macrophylla</i>
Juniper	<i>Juniperus</i> spp.
Juniper, Chinese	<i>Juniperus chinensis</i> v. <i>pfitzer</i>
Juniper, shore	<i>Juniperus conferta</i>
Juniper, trailing	<i>Juniperus horizontalis</i>
Laurel, cherry	<i>Prunus laurocerasus</i>
Laurel, Mountain	<i>Kalmia latifolia</i>
Laurel, otto luyken	<i>Prunus laurocerasus</i>
Laurel, schipka	<i>Prunus schipkanesis</i>
Laurustinus	<i>Viburnum tinus</i>
Lavender, English	<i>Lavandula angustifolia</i>
Leucothoe	<i>Leucothoe fontanesiana</i>
Leucothoe, coast	<i>Leucothoe axillaris</i>
Lilac, cut-leaf	<i>Syringa laciniata</i>
Lily-of-the-Nile	<i>Agapanthus africanus</i>
Mahonia	<i>Mahonia aquifolium</i>
Mock orange	<i>Pittosporum tobira</i>
Myrtle, compact	<i>Myrtus communis</i>
Myrtle, wax	<i>Myrica cerifera</i>
Nandina	<i>Nandina domestica</i>
Oleander	<i>Nerium oleander</i>
Oregon grape	<i>Mahonia aquifolium</i>
Osmanthus	<i>Osmanthus fragrans</i>
Palm, European fan	<i>Chamaerops humillis</i>
Palm, Mediterranean fan	<i>Chamaerops</i> spp.
Phlox, prickly	<i>Leptodactylon californicum</i>
Photinia, fraser	<i>Photinia X Fraseri</i>
Pieris, Japanese	<i>Pieris japonica</i>
Pine, mugo	<i>Pinus mugo</i>
Plum, natal	<i>Carissa grandiflora</i>
Privet, California	<i>Ligustrum ovalifolium</i>
Privet, glossy	<i>Ligustrum lucidum</i>
Privet, variegated	<i>Ligustrum sinensis</i>
Privet, waxleaf	<i>Ligustrum japonicum</i>
Pyracantha	<i>Pyracantha coccinea</i>
Quince, flowering	<i>Chaenomeles japonica</i>
Ranger, Texas	<i>Leucophyllum frutescens</i>
Redroot	<i>Ceanothus</i> spp.
Rhododendron	<i>Rhododendron</i> spp.
Robira	<i>Pittosporum tobiri</i>
Rose	<i>Rosa</i> spp.
Spice plant	<i>Illicium parviflorum</i>
Spiraea	<i>Spiraea vanhouttei</i>
Spiraea, anthony waterer	<i>Spiraea X bumalda</i>
Spiraea, Japanese	<i>Spiraea japonica</i>
Sweet bay	<i>Laurus nobilis</i>
Trumpet bush	<i>Tecoma stans</i>
Verbena, lemon	<i>Aloysia triphylla</i>
Viburnum	<i>Viburnum suspensum</i>
Vitex	<i>Vitex</i> spp.
Weigela	<i>Weigela florida</i>
Wild lilac	<i>Ceanothus</i> spp.
Wisteria	<i>Wisteria</i> spp.
Xylosma	<i>Xylosma congestum</i>
Yellowbells	<i>Tecoma stans</i>
Yew*	<i>Taxus media</i>

Yew, Japanese*	<i>Taxus cuspidata</i>
Yew, Southern*	<i>Podocarpus macrophyllus</i>
Yucca, Adam's needle	<i>Yucca filamentosa</i>
Yucca, weeping	<i>Yucca pendula</i>
*Do not apply this product during Spring growth or injury to terminals may occur.	

ORNAMENTAL TREES	
Common Name	Scientific Name
Alder, European black	<i>Alnus glutinosa</i>
Apple	<i>Malus</i> spp.
Arborvitae, American	<i>Thuja occidentalis</i>
Arbutus	<i>Arbutus</i> spp.
Ash, red	<i>Fraxinus pennsylvanica</i>
Ash, white	<i>Fraxinus americana</i>
Aspen, bigtooth	<i>Populus grandidentata</i>
Aspen, quaking	<i>Populus tremuloides</i>
Basswood	<i>Tilia</i> spp.
Birch, European weeping	<i>Betula pendula</i>
Birch, river	<i>Betula nigra</i>
Buckeye, red	<i>Aesculus pavia</i>
Cedar, white	<i>Thuja occidentalis</i>
Chamaecyparis, boulevard	<i>Chamaecyparis pisifera</i>
Cherry, black	<i>Prunus serotina</i>
Cherry, choke	<i>Prunus virginiana</i>
Cherry, kwanzan	<i>Prunus serrulata</i>
Cherry, nanking	<i>Prunus tomentosa</i>
Cottonwood	<i>Populus deltoides</i>
Crabapple	<i>Malus</i> spp.
Crape myrtle	<i>Lagerstroemia indica</i>
Cryptomeria, Japanese cedar	<i>Cryptomeria japonica</i>
Cypress, bald	<i>Taxodium distichum</i>
Cypress, leyland	<i>Cupressocyparis leylandii</i>
Dogwood, flowering	<i>Cornus florida</i>
Dogwood, Korean	<i>Cornus kousa</i>
Dogwood, shrub	<i>Cornus</i> spp.
Dogwood, silky	<i>Cornus amomum</i>
Elm	<i>Ulmus japonica</i>
Elm, winged	<i>Ulmus alata</i>
Eucalyptus (Silver dollar) tree	<i>Eucalyptus cinerea</i>
Fir, balsam	<i>Abies balsamae</i>
Fir, douglas	<i>Pseudotsuga menziesii</i>
Fir, fraser	<i>Abies fraseri</i>
Fir, white	<i>Abies concolor</i>
Franklinia	<i>Franklinia</i> spp.
Fringe tree	<i>Chlonenthus retusus</i>
Ginkgo	<i>Ginkgo biloba</i>
Gum, black	<i>Nyssa sylvatica</i>
Gum, sour	<i>Nyssa sylvatica</i>
Haw, black	<i>Viburnum prunifolium</i>
Hawthorn	<i>Crataegus</i> spp.
Hemlock, Canada	<i>Tsuga canadensis</i>
Hemlock, Eastern	<i>Tsuga canadensis</i>
Holly, American	<i>Ilex opaca</i>
Honeylocust	<i>Gleditsia triacanthos</i>
Lilac, common	<i>Syringa vulgaris</i>
Lilac, Japanese tree	<i>Syringa reticulata</i>
Linden	<i>Tilia</i> spp.

Magnolia, saucer	<i>Magnolia soulangiana</i>
Magnolia, Southern	<i>Magnolia grandiflora</i>
Magnolia, star	<i>Magnolia stellata</i>
Maidenhair tree	<i>Ginkgo biloba</i>
Maple, Japanese	<i>Acer palmatum</i>
Maple, Norway	<i>Acer plantanoides</i>
Maple, red	<i>Acer rubrum</i>
Maple, sugar	<i>Acer saccharum</i>
Nannyberry, rusty	<i>Viburnum rufidulum</i>
Oak, chinquapin	<i>Quercus muehlenbergii</i>
Oak, live	<i>Quercus virginiana</i>
Oak, pin	<i>Quercus palustris</i>
Oak, red	<i>Quercus rubra</i>
Oak, swamp chestnut	<i>Quercus michauxii</i>
Oak, water	<i>Quercus nigra</i>
Oak, white	<i>Quercus alba</i>
Oak, willow	<i>Quercus phellos</i>
Olive	<i>Olea europaea</i>
Palm date	<i>Phoenix</i> spp.
Palm, fan	<i>Washingtonia</i> spp.
Palm, pindo	<i>Butia</i> spp.
Palm, Washington	<i>Washingtonia</i> spp.
Peach	<i>Prunus persica</i>
Pear, bradford	<i>Pyrus calleryana</i> 'bradford'
Pecan	<i>Carya illinoensis</i>
Pine, Austrian	<i>Pinus nigra</i>
Pine, Italian stone	<i>Pinus pinea</i>
Pine, loblolly	<i>Pinus taeda</i>
Pine, monterey	<i>Pinus radiata</i>
Pine, red	<i>Pinus resinosa</i>
Pine, scotch	<i>Pinus sylvestris</i>
Pine, slash	<i>Pinus elliotii</i>
Pine, Virginia	<i>Pinus virginiana</i>
Pine, white	<i>Pinus strobus</i>
Plum, purple leaf	<i>Prunus cerasifera</i>
Poplar, black	<i>Populus nigra</i>
Redcedar, Eastern	<i>Juniperus virginiana</i>
Redcedar, Western	<i>Thuja plicata</i>
Red ironbark	<i>Eucalyptus sideroxylon</i> 'rosea'
Redwood, dawn	<i>Metasequoia glytostroboides</i>
Sequoia, giant	<i>Sequoiadendron giganteum</i>
Serviceberry	<i>Amelanchier laevis</i>
Sourwood	<i>Oxydendrum arboreum</i>
Spruce, Colorado blue	<i>Picea pungens</i>
Spruce, dwarf Alberta	<i>Picea glauca</i> 'albertiana'
Spruce, Norway	<i>Picea abies</i>
Spruce, white	<i>Picea glauca</i>
Sweetgum	<i>Liquidambar styraciflua</i>
Sycamore	<i>Platanus occidentalis</i>
Trachycarpus	<i>Trachycarpus</i> spp.
Tulip tree	<i>Liriodendron tulipifera</i>
Walnut, black	<i>Juglans nigra</i>
Willow, weeping	<i>Salix babylonica</i>
Yellowwood	<i>Cladrastis lutea</i>

PERENNIALS	
Common Name	Scientific Name
Acacia	<i>Acacia redolens</i>
Asparagus	<i>Asparagus</i> spp.
Aster, New York	<i>Aster novi-belgii</i>
Aster, Stokes	<i>Stokesia laevis</i>
Astilbe (False spirea)	<i>Astilbe</i> spp.
Avens	<i>Geum triflorum</i>
Baby's breath	<i>Gypsophila elegans</i>
Baby's breath	<i>Gypsophila paniculata</i>
Beard tongue	<i>Penstemon</i> spp.
Bellflower	<i>Campanula</i> spp.
Bellflower, willow	<i>Campanula persicifolia</i>
Bird of paradise	<i>Caesalpinia pulcherrima</i>
Black-eyed Susan*	<i>Rudbeckia hirta</i>
Blanket flower*	<i>Gaillardia aristata</i>
Blanket Flower*	<i>Gaillardia x grandiflora</i>
Bleeding heart	<i>Dicentra spectabilis</i>
Butterfly weed	<i>Asclepias tuberosa</i>
California poppy*	<i>Eschscholzia californica</i>
Calla lily	<i>Zantedeschia aethiopica</i>
Canna, common garden	<i>Canna generalis</i> 'Lucifer'
Carex	<i>Ornithogalum thyrsoides</i>
Chincherinchee	<i>Carex</i> spp.
Clover, crimson*	<i>Trifolium incarnatum</i>
Columbine	<i>Aquilegia</i> 'McKana Giant'
Columbine	<i>Aquilegia x hybrida</i>
Coreopsis (Tickseed)*	<i>Coreopsis lanceolata</i>
Crinum Lily	<i>Crinum</i> spp.
Crocus	<i>Crocus</i> spp.
Daffodil (Narcissus)	<i>Narcissus</i> spp.
Daylily	<i>Hemerocallis</i> spp.
Fairy duster	<i>Calliandra eriophylla</i>
Fern, asparagus	<i>Asparagus officinalis</i>
Fern, Boston	<i>Nephrolepis exaltata</i>
Fern, hay-scented	<i>Dennstaedtia punctilobula</i>
Fern, leatherleaf**	<i>Rumohra adiantiformis</i>
Fortnight lilly	<i>Moraea</i> spp.
Foxglove	<i>Digitalis purpurea</i>
Freesia	<i>Freesia x hybrida</i>
Gaillardia	<i>Gaillardia pulchella</i>
Geum	<i>Geum</i> spp.
Gladiolus	<i>Gladiolus</i> spp.
Heather, dwarf	<i>Calluna vulgaris</i>
Hosta	<i>Hosta</i> spp.
Indian blanket*	<i>Gaillardia pulchella</i>
Iris, Japanese	<i>Iris kaempferi</i>
Lantana, weeping	<i>Lantana montevidensis</i>
Leopard's bane	<i>Doronicum cordatum</i>
Lily	<i>Lilium</i> spp.
Liriope, big blue	<i>Liriope muscari</i>
Liriope, creeping	<i>Liriope spicata</i>
Liriope, variegated	<i>Liriope muscari</i>
Montbretia	<i>Crococsmia crocosmiiflora</i>
Moonbeam	<i>Coreopsis verticillata</i>
Mugwort, Western	<i>Artemisia ludoviciana</i>

Nightshade Orchid, peacock Oxeye daisy* Palm, areca Palm, pygmy date Palm, Washington Peony, Chinese Purple coneflower* Purple gay-feather Purple loosestrife Rodgersia Rosemary Sedge Shasta daisy* Statice Statice, German Sweet flag Texas bluebonnet Tulip Wisteria Wonder flower Yarrow* Zephyr lily	<i>Solanum</i> spp. <i>Acidanthera bicolor</i> <i>Chrysanthemum leucanthemum</i> <i>Chysalidocarous lutescens</i> <i>Phoenix roebelenae</i> <i>Washington robusta</i> <i>Paeonia lactiflora</i> <i>Echinacea purpurea</i> <i>Liatris pycnostachya</i> <i>Lythrum virgatum</i> <i>Rodgersia henricie</i> <i>Rosmarinus officinalis</i> <i>Carex</i> spp. <i>Chrysanthemum x superbum</i> <i>Limonium latifolia</i> <i>Goniolimon tartaricum</i> <i>Acorus calamus</i> <i>Lupinus texensis</i> <i>Tulipa</i> spp. <i>Wisteria</i> spp. <i>Ornithogalum thyrsoides</i> <i>Achillea millefolium</i> <i>Zephyranthes</i> spp.
* These plants have shown tolerance to applications of this product at 2.1 qts./Ac. in Wildflower plantings established from seed.	
** Applications of this product to immature Ferns (during periods of new growth of fronds) may result in some injury.	

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Do not store below 32°F. Product that has been frozen should be thawed and recirculated prior to use. If crystallization does occur, store the container on its side at room temperature (70°F) and rock occasionally until crystals re-dissolve. This product is stable under conditions of freezing and thawing.

PESTICIDE DISPOSAL: To avoid waste, use all materials in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often, such programs are run by State or local governments or by industry).

CONTAINER HANDLING:

Nonrefillable Container (rigid material; ≤ 5 gallons): Nonrefillable container. Do not reuse or refill this container. 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. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, by incineration, or by other methods allowed by State and local authorities.

Nonrefillable Container (rigid material; > 5 gallons up to < 250 gallons): Nonrefillable container. Do not reuse or refill this container. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill 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. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, by incineration, or by other methods allowed by State and local authorities.

Refillable Container (≥ 250 gallons & Bulk): 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—CONDITIONS OF SALE

OUR DIRECTIONS FOR USE of this product are based upon tests believed reliable. Follow directions carefully. Timing and method of application, weather and crop conditions, mixtures with other chemicals not specifically recommended and other influencing factors in the use of this product are beyond the control of the Seller. To the extent consistent with applicable law, Buyer assumes all risks of use, storage and handling of this material not in strict accordance with directions given herewith. To the extent consistent with applicable law, in no case shall the Manufacturer or the Seller be liable for consequential, special or indirect damages resulting from the use or handling of this product when such use and/or handling is not in strict accordance with directions given herewith. To the extent consistent with applicable law, Manufacturer makes no other warranties or representations of any kind, expressed or implied, concerning the product, including no implied warranty of merchantability or fitness for any particular purpose, and no such warranty shall be implied by law. The foregoing is a condition of sale by the Seller and is accepted as such by the Buyer.

Manufactured By:



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[EDITORIAL NOTES]

The following unit of measures found under the "DIRECTIONS FOR USE" section can be formatted using the following abbreviations:

- Quarts – Qts.
- Qts./Acre - Qts./Ac.
- Acre – Ac.
- per acre - /Ac.
- inch – in.

ACCEPTED

08/18/2020

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 19713-698

SUPPLEMENTAL LABELING

PENDIMETHALIN

GROUP

3

HERBICIDE

Drexel

AquaPen™ 3.8

Herbicide

(EPA Reg. No. 19713-698)

REDUCED PRE-HARVEST INTERVAL (PHI) IN ALFALFA GROWN FOR FORAGE OR HAY PRODUCTION

THIS SUPPLEMENTAL LABEL EXPIRES ON AUGUST 17, 2022 AND MUST NOT BE USED OR DISTRIBUTED AFTER THIS DATE.

ACTIVE INGREDIENT:

Pendimethalin..... 38.7%

OTHER INGREDIENTS: 61.3%

TOTAL: 100.0%

This product contains 3.8 pounds of pendimethalin per gallon

**KEEP OUT OF REACH OF CHILDREN
CAUTION**

DIRECTIONS FOR USE

- It is a violation of Federal law to use this product in a manner inconsistent with its labeling.
- This supplemental labeling must be in the possession of the user at the time of application.
- Read the entire DREXEL AQUAPEN 3.8 HERBICIDE (EPA Reg. No. 19713-698) label before proceeding with the use directions contained in this supplemental labeling.
- Follow all applicable directions, restrictions, Worker Protection Standard (WPS) requirements, and precautions on the registered label for EPA Reg. No. 19713-698.

ALFALFA (GROWN FOR FORAGE, HAY OR SEED PRODUCTION)

Refer to the "METHODS OF APPLICATION, TIMING AND RATES" and other use directions, restrictions and precautions for "ALFALFA (GROWN FOR FORAGE, HAY OR SEED PRODUCTION)" found on the label for Drexel Aquapen 3.8 Herbicide (EPA Reg. No. 19713-698).

Use Restriction on Alfalfa

- Pre-harvest Interval (PHI) for Alfalfa forage or hay: 14 days

Manufactured By:

Drexel Chemical Company

P.O. BOX 13327, MEMPHIS, TN 38113-0327

SINCE 1972

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