



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

March 12, 2015

Janine M. Gydus  
Authorized Agent for CropSmart, LLC  
c/o Sullivan and Worcester, LLP  
1666 K Street, NW, Suite 700  
Washington, DC 20006

Subject: Label Notification per PRNs 98-10 and 2007-4 – Revised Container Handling and  
Establishment Number Language  
Product Name: CropSmart Glyphosate 41% Extra  
EPA Registration Number: 85945-1  
Application Date: February 6, 2015  
Decision Number: 500182

Dear Ms. Gydus:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notices (PRNs) 98-10 and 2007-4 for the above referenced product. The Registration Division (RD) has conducted a review of this request for its applicability under PRNs 98-10 and 2007-4 and finds that the action requested falls within the scope of PRNs 98-10 and 2007-4.

The label submitted with the application has been stamped "Notification" and will be placed in our records.

If you have any questions, you may contact Sarah Meadows at 703-347-0505 or via email at [meadows.sarah@epa.gov](mailto:meadows.sarah@epa.gov).

Sincerely,

A handwritten signature in black ink that reads "Mindy Ondish".

Mindy Ondish  
Acting Product Manager 25  
Herbicide Branch  
Registration Division (7505P)  
Office of Pesticide Programs

[BASE LABEL:]

# Crop\$mart™ Glyphosate 41% Extra

## NOTIFICATION

85945-1

The applicant has certified that no changes, other than those reported to the Agency have been made to the labeling. The Agency acknowledges this notification by letter dated:

03/12/2015

### ACTIVE INGREDIENT:

\*Glyphosate, N-(phosphonomethyl)glycine, in the form of its isopropylamine salt..... 41.0%

**OTHER INGREDIENTS:**..... 59.0%

**TOTAL:** ..... 100.0%

\*Contains 480 grams per litre or 4 pounds per U.S. gallon of the active ingredient, glyphosate, in the form of its isopropylamine salt. Equivalent to 356 grams per litre or 3 pounds per U.S. gallon of the acid glyphosate.

Group	9	Herbicide
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EPA Reg. No. -85945-1

EPA Est. No.

[When more than one EPA Est. No. is used this may appear:]

Last letter in lot number corresponds to the EPA Est. No. used]

## KEEP OUT OF REACH OF CHILDREN CAUTION

FIRST AID	
<b>If in eyes:</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-222-1222 for emergency medical treatment information.	

[See inside label booklet for DIRECTIONS FOR USE and additional PRECAUTIONARY STATEMENTS]

Manufactured for:  
CROPSMART, LLC  
PO BOX 342  
MORRISVILLE NC 27560

[Net Contents: May appear on base label and/or booklet and/or container]

[Batch Code: \_\_\_ May appear on label or container]

[BOOKLET LABEL:]

# Crop\$mart™

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**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS AND DOMESTIC ANIMALS  
CAUTION**

Causes moderate eye irritation. Avoid contact with eyes or clothing.

**DOMESTIC ANIMALS:** This product is considered to be relatively nontoxic to dogs and other domestic animals; however, ingestion of this product or large amounts of freshly sprayed vegetation may result in temporary gastrointestinal irritation (vomiting, diarrhea, colic, etc.). If such symptoms are observed, provide the animal with plenty of fluids to prevent dehydration. Call a veterinarian if symptoms persist for more than 24 hours.

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

**Applicators and other handlers must wear:**

- Long-sleeved shirt and long pants
- 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.

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

**User Safety Recommendations:**

Users should:

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

**ENVIRONMENTAL HAZARDS**

Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

**PHYSICAL OR CHEMICAL HAZARDS**

Mix, store and apply spray solutions of this product using only stainless steel, aluminum, fiberglass, plastic or plastic-lined steel containers.

**DO NOT MIX, STORE OR APPLY THIS PRODUCT OR SPRAY SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR SPRAY TANKS.** This product or spray solutions of this product react with such containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture. This gas mixture could flash or explode, causing serious personal injury, if ignited by open flame, spark, welder's torch, lighted cigarette or other ignition source.

Read the entire label before using this product. Use only according to label directions. Read the "Warranty Disclaimer, Inherent Risks of Use and Limitation of Remedies" statements at the end of the label before buying or using. If terms are not acceptable, return at once unopened.

**DIRECTIONS FOR USE**

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

This product can only be used in accordance with the Directions for Use on this label or in separately published CropSmart, LLC supplemental labeling. Supplemental labeling may be obtained for your CropSmart, LLC representative.

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

### AGRICULTURAL USE REQUIREMENTS

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

**Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 4 hours.**

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

- Coveralls
- Waterproof gloves
- 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 Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries or greenhouses.

Keep people and pets off treated areas until spray solution has dried.

### SEED POTATO PRECAUTION

Potatoes grown for seed are very sensitive to glyphosate at extremely low concentrations. Exposure of the seed potato crop can cause germination failure or deformities. Daughter tuber damage may occur at levels where mother crop symptoms are not visible. Multiple sprouting from eyes, weak and distorted stems, "little potato syndrome", cauliflower sprouts, root distortions, excessive root growth, suppressed tuber initiation and bulking, failure or delay in opening of eyes, and rotting of tubers in the field or store can result. Subsequent plantings of seed pieces from the exposed mother crop can result in delayed or no emergence or produce lower than normal yields. Glyphosate can contaminate seed potato crops through carryover residue in application equipment or drift from applying glyphosate to nearby crops. Always follow good wash-out procedures using detergents or other suitable cleaning agents to remove all residual traces of glyphosate from application equipment that may be used to apply other products to seed potato crops. To avoid contamination from spray drift follow the directions and precautions in the Spray Drift Management section of the label.

### PRODUCT INFORMATION

**Product Description:** This product is a postemergent, systemic herbicide with no soil residual activity. It is generally non-selective and gives broad-spectrum control of many annual weeds, perennial weeds, woody brush and trees. It is formulated as a water-soluble liquid. No additional surfactants, additives containing surfactant, buffering agents or pH adjusting agents are needed. It may be applied through most standard industrial or field-type sprayers after dilution and thorough mixing with water or other carriers according to label directions.

Do not add surfactants, additives containing surfactants, buffering agents or pH adjusting agents to this product. Ammonium sulfate, drift control additives, or dyes and colorants may be used. See the MIXING section of this label for directions.

**Time to symptoms:** This product moves through the plant from the point of foliage contact to and into the root system. Visible effects on most annual weeds occur within 2 to 4 days, but on most perennial weeds may not occur for 7 days or more. Extremely cool or cloudy weather following treatment may slow activity of this product and delay development of visual symptoms. Visible effects are a gradual wilting and yellowing of the plant which advances to complete browning in the aboveground growth and deterioration of underground plant parts.

**Stage of Weeds:** Annual weeds are easiest to control when they are small. Best control of most perennial weeds is obtained when treatment is made at late growth stages approaching maturity. Refer to the annual, perennial, woody brush and trees rate tables for specific weeds.

Always use the higher rate of this product per acre within the specified range when weed growth is heavy or dense or weeds are growing in an undisturbed (noncultivated) area.

Do not treat weeds under poor growing conditions such as drought stress, disease or insect damage, as reduced weed control may result. Reduced results may also occur when treating weeds heavily covered with dust.

**Cultural Considerations:** Reduced control may result when applications are made to annual or perennial weeds that have been mowed, grazed, or cut, and have not been allowed to regrow to the specified stage for treatment.

**Rainfastness:** Heavy rainfall soon after application may wash this product off of the foliage and a repeat application may be required for adequate control.

**Spray Coverage:** For best results, spray coverage should be uniform and complete. Do not spray weed foliage to the point of runoff.

**Mode of Action:** The active ingredient in this product inhibits an enzyme found only in plants that is essential to formation of specific amino acids.

**No Soil Activity:** Weeds must be emerged at the time of application to be controlled by this product. Weeds germinating from seed after application will not be controlled. Unemerged plants arising from unattached underground rhizomes or root stocks of perennials will not be affected by the herbicide and will continue to grow.

**Biological Degradation:** Degradation of this product is primarily a biological process carried out by soil microbes.

**Tank Mixing:** This product does not provide residual weed control. For subsequent residual weed control, follow a label-approved herbicide program. Read and carefully observe the cautionary statements and all other information appearing on the label directions for each product in the mixture.

Buyer and all users are responsible for all loss or damage in connection with the use or handling of mixtures of this product with herbicides or other materials that are not expressly specified in this label. Mixing this product with herbicides or other materials not specified on this label may result in reduced performance.

**Annual Maximum Use Rate:** Except as otherwise specified in a crop section of this label, the combined total of all treatments must not exceed 8 quarts of this product per acre per year. For noncrop uses, the combined total of all treatments must not exceed 10.6 quarts of this product per acre per year. The maximum use rates stated throughout this product's labeling apply to this product combined with the use of all other herbicides containing glyphosate or sulfosate as the active ingredient, whether applied as mixtures or separately. Calculate the application rates and ensure that the total use of this and other glyphosate or sulfosate containing products does not exceed stated maximum use rate.

NOTE: Use of this product in any manner not consistent with this label may result in injury to persons, animals or crops, or other unintended consequences. Keep container closed to prevent spills and contamination.

#### INFORMATION ON WEED RESISTANCE

Glyphosate, the active ingredient in this product, is a Group 9 herbicide. Target site resistance to Group 9 herbicides is rare. Any weed population may contain plants naturally resistant to Group 9 herbicides. Weed species resistant to Group 9 herbicides may be effectively managed utilizing another herbicide from a different Group or using other cultural practices or mechanical practices.

#### WEED MANAGEMENT DIRECTIONS

- To minimize the occurrence of glyphosate-resistant biotypes, observe the following general weed management directions:

- Scout your fields before and after herbicide applications.
- Start with a clean field; use either a burndown herbicide application or tillage.
- Control weeds early when they are relatively small.
- Add other herbicides (e.g. a selective and/or a residual herbicide) and cultural practices (e.g., tillage or crop rotation) where appropriate.
- One method of adding other herbicides into a continuous Roundup Ready system is to rotate to other Roundup Ready crops.
- Utilize the specified label rate for the most difficult to control weed in your field. Avoid tank mixtures with other herbicides that reduce this product's efficacy (through antagonism), or tank mixture directions that encourage application rates of this product below the label directions.
- Control weed escapes and prevent weeds from setting seeds.
- Clean equipment before moving from field to field to minimize the spread of weed seed or plant parts.
- Use new commercial seed that is as free of weed seed as possible.
- Report any incidence of repeated non-performance of this product on a particular weed to your CropSmart, LLC representative, local retailer or county extension agent.

### **MANAGEMENT DIRECTIONS FOR GLYPHOSATE RESISTANT BIOTYPES**

Note: Appropriate testing is critical in order to determine if a weed is resistant to glyphosate. Contact your CropSmart, LLC representative to determine if resistance has been confirmed to any particular weed biotype in your area, or visit on the internet [www.weedresistancemanagement.com](http://www.weedresistancemanagement.com) or [www.weedscience.org](http://www.weedscience.org). For more information see the "ANNUAL WEEDS RATE SECTION" and "PERENNIAL WEEDS RATE SECTION" of this label.

Control directions for biotypes confirmed as resistant to glyphosate are made available on separately published supplemental labeling for fact sheets for this product and can be obtained from your local retailer or CropSmart, LLC representative.

Since the occurrence of new glyphosate resistant weeds cannot be determined until after product use and scientific confirmation, CropSmart, LLC is not responsible for any losses that may result from the failure of this product to control glyphosate-resistant weed biotypes.

Use the following good agronomic practices to reduce the spread of confirmed glyphosate resistant biotypes:

- If a naturally occurring resistant biotype is present in your field, this product should be tank-mixed or applied sequentially with an appropriately labeled herbicide with a different mode of action to achieve control.
- Cultural and mechanical control practices (e.g. crop rotation or tillage) may also be used as appropriate.
- One method for adding other herbicides into a continuous Roundup Ready System is to rotate to other Roundup Ready crops.
- Scout treated fields after herbicide applications and control escaping weeds including resistant biotypes before they set seed.
- Thoroughly clean equipment before leaving fields known to contain resistant biotypes.

### **ATTENTION**

AVOID CONTACT OF HERBICIDE WITH FOLIAGE, GREEN STEMS, EXPOSED NON-WOODY ROOTS OR FRUIT OF CROPS, DESIRABLE PLANTS AND TREES, BECAUSE SEVERE INJURY OR DESTRUCTION MAY RESULT.

AVOID DRIFT. EXTREME CARE MUST BE USED WHEN APPLYING THIS PRODUCT TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS.

Do not allow the herbicide solution to mist, drip, drift or splash onto desirable vegetation since minute quantities of this product can cause severe damage or destruction to the crop, plants or other areas on which treatment was not intended. The likelihood of injury occurring from the use of this product increases when winds are gusty, as wind velocity increases, when wind direction is constantly changing or when

there are other meteorological conditions that favor spray drift. When spraying, avoid combinations of pressure and nozzle type that will result in splatter or fine particles (mist) which are likely to drift. AVOID APPLYING AT EXCESSIVE SPEED OR PRESSURE.

NOTE: Use of this product in any manner not consistent with this label may result in injury to persons, animals or crops, or other unintended consequences. Keep container closed to prevent spills and contamination.

### MIXING

Clean sprayer parts immediately after using this product by thoroughly flushing with water.

NOTE: REDUCED RESULTS MAY OCCUR IF WATER CONTAINING SOIL IS USED, SUCH AS VISIBLY MUDDY WATER OR WATER FROM PONDS AND DITCHES THAT IS NOT CLEAR.

#### Mixing with Water

This product mixes readily with water. Mix spray solutions of this product as follows: Fill the mixing or spray tank with the required amount of water. Add the specified amount of this product near the end of the filling process and mix well. Use caution to avoid siphoning back into the carrier source. Use approved anti-back-siphoning devices where required by state or local regulations. During mixing and application, foaming of the spray solution may occur. To prevent or minimize foam, avoid the use of mechanical agitators, terminate by-pass and return lines at the bottom of the tank and, if needed, use an approved anti-foam or defoaming agent.

#### Tank Mixing Procedure

Mix labeled tank mixtures of this product with water as follows:

1. Place a 20 to 35-mesh screen or wetting basket over filling port.
2. Through the screen, fill the spray tank one-half full with water and start agitation.
3. If ammonium sulfate is used, add it slowly through the screen into the tank. Continue agitation. Ensure that dry ammonium sulfate is completely dissolved in the spray tank before adding other products.
4. If a wettable powder is used, make a slurry with the water carrier, and add it SLOWLY through the screen into the tank. Continue agitation.
5. If a flowable formulation is used, premix one part flowable with one part water. Add diluted mixture SLOWLY through the screen into the tank. Continue agitation.
6. If an emulsifiable concentrate formulation is used, premix one part emulsifiable concentrate with two parts water. Add diluted mixture slowly through the screen into the tank. Continue agitation.
7. Continue filling the spray tank with water and add the required amount of this product near the end of the filling process.
8. Add individual formulations to the spray tank as follows: wettable powder, flowable, emulsifiable concentrate, drift control additive and water soluble liquid.

Maintain good agitation at all times until the contents of the tank are sprayed. If the spray mixture is allowed to settle, thorough agitation is required to resuspend the mixture before spraying is resumed.

Keep by-pass line on or near the bottom of the tank to minimize foaming. Screen size in nozzle or line trainers must be no finer than 50 mesh.

Always predetermine the compatibility of labeled tank mixtures of this product with water carrier by mixing small proportional quantities in advance.

Refer to the "Tank Mixing" section of "PRODUCT INFORMATION" for additional precautions.

#### Mixing for Hand-held Sprayers

Prepare the desired volume of spray solution by mixing the amount of this product in water as shown in the following table:

Desired Volume	Amount of Crop\$mart Glyphosate 41% Extra					
	1/2%	1%	1-1/2%	2%	5%	10%
1 Gal	2/3 oz	1-1/3 oz	2 oz	2-2/3 oz	6-1/2 oz	13 oz



<b>25 Gal</b>	1 pt	1 qt	1-1/2 qt	2 qt	5 qt	10 qt
<b>100 Gal</b>	2 qt	1 gal	1-1/2 gal	2 gal	5 gal	10 gal

2 tablespoons = 1 fluid ounce

For use in knapsack sprayers, it is suggested that the specified amount of this product be mixed with water in a larger container. Fill sprayer with the mixed solution.

#### **Ammonium Sulfate**

The addition of 1 to 2 percent dry ammonium sulfate by weight or 8.5 to 17 pounds per 100 gallons of water may increase the performance of this product, particularly when tank mixed with certain residual herbicides on annual and perennial weeds. The equivalent rate of ammonium sulfate in a liquid formulation may also be used. Ensure that ammonium sulfate is completely dissolved in the spray tank before adding herbicides. Thoroughly rinse the spray system with clean water after use to reduce corrosion.

NOTE: When using ammonium sulfate, apply this product at rates specified in this label. Lower rates will result in reduced performance.

#### **Colorants or Dyes**

Agriculturally approved colorants or marking dyes may be added to this product. Colorants or dyes used in spray solutions of this product may reduce performance, especially at lower rates or dilutions. Use colorants or dyes according to the manufacturer's instructions.

#### **Drift Control Additives**

Drift control additives may be used with all equipment types, except wiper applicators, sponge bars and CDA equipment. When a drift control additive is used, read and carefully observe the cautionary statements and all other information appearing on the additive label.

NOTE: The use of drift control additives can affect spray coverage which may result in reduced performance.

### **APPLICATION EQUIPMENT AND TECHNIQUES**

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

This product may be applied with the following application equipment:

#### **Aerial- Fixed Wing and Helicopter**

**Ground Broadcast Spray-** Boom or boomless systems, pull-type sprayer, floaters, pick-up sprayers, spray coupes and other ground broadcast equipment.

**Hand-Held and High-Volume Spray Equipment-** Knapsack and backpack sprayers, pump-up pressure sprayers, handguns, handwands, mistblowers\*, lances and other hand-held and motorized spray equipment used to direct the spray onto weed foliage.

\*This product is not registered in California or Arizona for use in mistblowers.

**Selective Equipment-** Shielded and hooded sprayers, wiper applicators and sponge bars.

**Injection Systems-** Aerial or ground injection sprayers.

**Controlled Droplet Applicator (CDA)-** Hand-held or boom-mounted applicators which produce a spray consisting of a narrow range of droplet sizes.

APPLY THESE SPRAY SOLUTIONS IN PROPERLY MAINTAINED AND CALIBRATED EQUIPMENT CAPABLE OF DELIVERING DESIRED VOLUMES.

#### **DRIFT PRECAUTION**

Do not allow the herbicide solution to mist, drip, drift, or splash onto desirable vegetation. Extreme care must be exercised to avoid contact of spray with foliage, green stems or fruit of desirable crops, plants, trees or other desirable vegetation since minute quantities of this product can cause severe damage or destruction to the crop, plants or other areas on which treatment was NOT intended. Examples of, but not

limited to, crop types that may be sensitive to glyphosate exposure include rice, small grain cereals, peanuts, potatoes, vegetables, fruits and ornamentals.

Applicators must be aware of any potentially sensitive crops near application zone before making application. To prevent injury to adjacent desirable vegetation, appropriate buffer zones must be maintained.

1. Do not apply within 100 feet of any desirable vegetation or crops.
2. If wind up to 5 miles per hour is blowing toward desirable vegetation or crops, do not apply within 500 feet upwind of the desirable vegetation or crops,
3. Winds blowing from 5 to 10 miles per hour toward desirable vegetation or crops will likely require buffer zones in excess of 500 feet.

If unsure of appropriate buffer zone, contact your local Extension Agent for advice.

#### **Aerial Equipment**

DO NOT APPLY THIS PRODUCT USING AERIAL SPRAY EQUIPMENT EXCEPT UNDER CONDITIONS AS SPECIFIED WITHIN THIS LABEL. FOR AERIAL APPLICATION IN CALIFORNIA AND ARKANSAS, REFER TO DIRECTIONS SPECIFIC TO THOSE STATES.

This product plus dicamba tank mixtures may not be applied by air in California.

Use the specified rates of this herbicide in 3 to 15 gallons of water per acre unless otherwise specified on this label. Unless otherwise specified, do not exceed 1 quart per acre. Aerial applications of this product may be made in annual cropping conventional tillage systems, fallow and reduced tillage systems and preharvest applications. Refer to the individual use area sections of this label for specific volumes and application rates.

Ensure uniform application- To avoid streaked, uneven or overlapped application, use appropriate marking devices.

#### **AERIAL SPRAY DRIFT MANAGEMENT**

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

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

1. The distance of the outer most nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

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

#### **INFORMATION ON DROPLET SIZE**

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

#### **CONTROLLING DROPLET SIZE**

- Volume- Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- Pressure- Do not exceed the nozzle manufacturer's specified pressures. For many nozzle types lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- Number of nozzles- Use the minimum number of nozzles that provide uniform coverage.

- Nozzle Orientation- Orient nozzles so that the spray is released parallel to the airstream in order to produce larger droplets. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- Nozzle Type- Use a nozzle type that is designated for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.
- Boom Length - For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.
- Application Height - Applications must not be made at a height greater than 10 feet above the top of the target plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

### **SWATH ADJUSTMENT**

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

### **WIND**

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

### **TEMPERATURE AND HUMIDITY**

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

### **TEMPERATURE INVERSIONS**

Applications must not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft 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.

### **SENSITIVE AREAS**

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

Avoid direct application to any body of water.

### **Aircraft Maintenance**

Thoroughly wash aircraft, especially landing gear, after each day of spraying to remove residues of this product accumulated during spraying or from spills. PROLONGED EXPOSURE OF THIS PRODUCT TO UNCOATED STEEL SURFACES MAY RESULT IN CORROSION AND POSSIBLE FAILURE OF THE PART. LANDING GEARS ARE MOST SUSCEPTIBLE. The maintenance of an organic coating (paint), which meets aerospace specification MIL-C-38413, may prevent corrosion.

### **For Aerial Application in California Only**

Aerial applications of this product are allowed in the following situations:

1. In fallow and reduced tillage systems prior to the emergence or transplanting of labeled crops.
2. In alfalfa and pasture renovation applications.
3. Over-the-top applications in Roundup Ready® corn and cotton.

4. Preharvest in alfalfa, corn, cotton, wheat, Roundup Ready® corn and Roundup Ready® cotton.

Do not plant subsequent crops other than those listed in the label booklet for 30 days following application.

When tank mixing this product with 2,4-D for aerial applications, only 2,4-D amine formulations may be used. This tank mixture may be used for fallow and reduced tillage systems and alfalfa and pasture renovation applications only.

DO NOT EXCEED A MAXIMUM RATE OF 2 QUARTS PER ACRE OF THIS PRODUCT WHEN MAKING APPLICATIONS BY AIR IN FALLOW AND REDUCED TILLAGE SYSTEMS AND ALFALFA AND PASTURE RENOVATION APPLICATIONS.

DO NOT EXCEED A MAXIMUM RATE OF 1 QUART PER ACRE OF THIS PRODUCT WHEN MAKING APPLICATIONS BY AIR IN ALFALFA, CORN, COTTON, WHEAT, ROUNDUP READY® CORN AND ROUNDUP READY® COTTON PRIOR TO HARVEST. THIS RESTRICTION ALSO APPLIES TO OVER-THE-TOP APPLICATIONS IN ROUNDUP READY® CORN AND COTTON.

#### **Aerial Equipment**

Use the specified rates of this product in 3 to 15 gallons of water per acre.

Use the following guidelines when aerial applications are made near crops or desirable perennial vegetation after bud break and before total leaf drop, and/or near other desirable vegetation or annual crops.

1. Do not apply within 100 feet of all desirable vegetation or crop(s).
2. If wind up to 5 miles per hour is blowing toward desirable vegetation or crop(s), do not apply within 500 feet of the desirable vegetation or crop(s).
3. Winds blowing from 5 to 10 miles per hour toward desirable vegetation or crop(s) may require buffer zones in excess of 500 feet.
4. Do not apply when winds are in excess of 10 miles per hour or when inversion conditions exist.

#### **For Aerial Application in Fresno County, California Only From February 15 through March 31 Only**

Applicable Area:

The area contained inside the following boundaries within Fresno County, California.

North: Fresno County line

South: Fresno County line

East: State Highway 99

West: Fresno County line

#### **Information:**

Always read and follow the label directions and precautionary statements for all products used in the aerial application.

Observe the following directions to minimize off-site movement during aerial application of this product. Minimization of off-site movement is the responsibility of the grower, Pest Control Advisor and aerial applicator.

#### **Written Recommendations:**

A written recommendation MUST be submitted by or on behalf of the applicator to the Fresno County Agricultural Commissioner 24 hours prior to the application. This written recommendation MUST state the proximity of surrounding crops, and that conditions of each manufacturer's product label and this label have been satisfied.

#### **Aerial Applicator Training and Equipment:**

Aerial application of this product is limited to pilots who have successfully completed a Fresno County Agricultural Commissioner and California Department of Pesticide Regulation approved training program for aerial application of herbicides. All aircraft must be inspected, critiqued in flight and certified at a Fresno County Agricultural Commissioner approved fly-in. Test and calibrate spray equipment at intervals sufficient to insure that proper rates of herbicides and adjuvants are being applied during commercial use.

Applicator must document such calibrations and testing. Demonstration of performance at Fresno County Agricultural Commissioner approved fly-ins constitutes such documentation, or other written records showing calculations and measurements of flight and spray parameters acceptable to the Fresno County Agricultural Commissioner.

**Applications at Night:**

Do not apply this product by air earlier than 30 minutes prior to sunrise and/or later than 30 minutes after sunset without prior permission from the Fresno County Agricultural Commissioner.

Note: For aerial application from April 1 through February 14, refer to the "For Aerial Application in California Only" section of this label.

**For Aerial Application in Arkansas Only**

AVOID DRIFT. DO NOT APPLY INTO STILL AIR WHERE THERE IS A TEMPERATURE INVERSION LAYER LOW ENOUGH FOR FINE SPRAY PARTICLES TO BECOME SUSPENDED AND MOVE OUTSIDE THE TARGET AREA WHEN THE INVERSION LAYER MOVES. DO NOT APPLY WHEN WINDS ARE GUSTY OR UNDER ANY OTHER CONDITION THAT FAVORS DRIFT. DRIFT IS LIKELY TO CAUSE DAMAGE TO ANY VEGETATION CONTACTED. TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION, APPROPRIATE BUFFER ZONES MUST BE MAINTAINED.

Use the specified rates of this product in 3 to 15 gallons of water per acre. Use sufficient carrier volume and appropriate equipment set-up to form droplets large enough to avoid drift potential. Adjust nozzles to produce coarse droplets in the 300 to 500 (VMD) micron range.

Applications must be made with the nozzle release point at 8 to 15 feet above the top of the target plants unless a greater height is required to aircraft safety. The distance or the outermost nozzles on the boom must not exceed 75% of the length of the wingspan or rotor. In many cases, reducing this distance to 65% of the length of the wingspan or rotor will improve drift control without affecting the swath width.

Nozzles must always discharge backward parallel with the air stream and never discharge downwards more than 45 degrees on fixed wing aircraft or forward of the prevailing airflow on rotary winged aircraft. Avoid the use of nozzles with wide-angle discharge.

Do not apply this product when wind speeds are in excess of 10 miles per hour.

Do not apply when there is a low-level inversion where fine spray particles could be suspended in still air and move outside the target area when the inversion layer moves. These conditions may occur when wind speeds are less than 2 mph.

Use the following guidelines when applications are made near crops or other desirable vegetation.

1. Do not apply within 100 feet of any desirable vegetation or crops.
2. If wind up to 5 miles per hour is blowing toward desirable vegetation or crops, do not apply within 500 feet upwind of the desirable vegetation or crops.
3. Winds blowing from 5 to 10 miles per hour toward desirable vegetation or crops will likely require buffer zones in excess of 500 feet.

**Ground Broadcast Equipment**

Use the specified rates of this product in 3 to 40 gallons of water per acre as a broadcast spray unless otherwise specified. As density of weeds increases, spray volume should be increased within the specified range to ensure complete coverage. Carefully select proper nozzles to avoid spraying a fine mist. For best results with ground application equipment, use flat fan nozzles. Check for even distribution of spray droplets.

**Hand-Held and High-Volume Equipment**

Apply to foliage of vegetation to be controlled. For applications made on a spray-to-wet basis, spray coverage should be uniform and complete. Do not spray to the point of runoff. Use coarse sprays only.

For rates and timing, refer to the "ANNUAL WEEDS – HAND HELD OR HIGH-VOLUME EQUIPMENT" section of this label.

**Selective Equipment**

This product may be applied through shielded applicators, hooded sprayers, wiper applicators or sponge bars after dilution and thorough mixing with water to listed weeds growing in any noncrop site specified on this label.

In cropping systems, hooded sprayers, shielded sprayers, and wipers may be used in row middles (in between rows of crop plants) where any dripping or leaking will not contact crop foliage. Such equipment must be capable of preventing all crop contact with herbicide solutions and operated without leakage of spray mists or dripping onto crop. Wipers over-the-top of crops may be used only when specifically listed in this product's labeling.

#### AVOID CONTACT OF HERBICIDE WITH DESIRABLE VEGETATION

Contact of the herbicide solution with desirable vegetation may result in damage or destruction. When applications are being made above desirable vegetation, adjust applicators so that the lowest spray stream or wiper contact point is at least 2 inches above the desirable vegetation. Droplets, mist, foam or splatter of the herbicide solution settling on desirable vegetation may result in discoloration, stunting or destruction.

Make applications when the weeds are a minimum of 6 inches above the desirable vegetation. Better results may be obtained when more of the weed is exposed to the herbicide solution. Weeds not contacted by the herbicide solution will not be affected. This may occur in dense clumps, severe infestations or when the height of the weeds varies so that not all weeds are contacted. In these instances, repeat treatment may be necessary.

#### **Shielded and Hooded Applicators**

When applied under the conditions described in the following paragraphs for shielded and hooded applications, this product at specified rates will control those weeds listed in the "ANNUAL WEEDS RATE TABLE" and "PERENNIAL WEEDS RATE TABLE" sections of this label. A hooded sprayer is a type of shielded applicator where the spray pattern is fully enclosed including top, sides, front and back, thereby shielding the crop from the spray solution. Keep shields on these sprayers adjusted to protect desirable vegetation. When applying to crops grown on raised beds, ensure that the hood is designed to completely enclose the spray solution. If necessary, extend the front and rear flaps of the hoods to reach the ground in deep furrows. **EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF HERBICIDE WITH DESIRABLE VEGETATION.**

This equipment must be set up and operated in a manner that avoids bouncing or raising the hoods off the ground in any way. If the hoods are raised, spray particles may escape and come into contact with the crop, causing damage or destruction of the crop. Avoid operation on rough or sloping ground where the spray hoods might be raised off the ground.

Use hoods designed to minimize excessive dripping or run-off down the insides of the hoods. Use a single, low pressure/low drift flat-fan nozzle with an 80 to 95 degree spray angle positioned at the top center of the hood. Spray volume must be a minimum of 20 to 30 gallons per acre.

These procedures will reduce the potential for crop injury:

- The spray hoods must be operated on the ground or skimmed across the ground.
- Leave at least an 8 inch untreated strip over the drill row. For example, if the crop row width is 38 inches, the maximum width of the spray hood must be 30 inches.
- Maximum tractor speed: 5 miles per hour to avoid bouncing of the spray hoods.
- Maximum wind speed: 10 miles per hour.
- Use low-drift nozzles that provide uniform coverage within the treated area.

Crop injury may occur when the foliage of treated weeds comes into direct contact with leaves of the crop. Do not apply this product when the leaves of the crop are growing in direct contact with weeds to be treated. Droplets, mist, foam or splatter of the herbicide solution may contact the crop and cause discoloration, stunting or destruction.

**EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF HERBICIDE WITH DESIRABLE VEGETATION.**

### **Wiper Applicators**

When applied under the conditions described in the following paragraphs, this product CONTROLS many weeds, including volunteer corn, Texas panicum, common rye, shattercane, sicklepod, Spanish needles and bristly starbur and SUPPRESSES many weeds including Florida beggarweed, Bermudagrass, hemp dogbane, dogfennel, guineagrass, johnsongrass, milkweed, silverleaf nightshade, redroot pigweed, giant ragweed, smutgrass, sunflower, Canada thistle, musk thistle, vaseygrass & velvetleaf.

Wiper applicators are devices that physically wipe appropriate amounts of this product directly onto the weed.

Equipment must be designed, maintained and operated to prevent the herbicide solution from contacting desirable vegetation. Operate this equipment at ground speeds no greater than 5 mph. Performance may be improved by reducing speed in areas of heavy weed infestations to ensure adequate wiper saturation. Better results may be obtained if 2 applications are made in opposite directions.

Avoid leakage or dripping onto desirable vegetation. Adjust height of applicator to ensure adequate contact with weeds. Keep wiping surfaces clean. Be aware that, on sloping ground, the herbicide solution may migrate, causing dripping on the lower end and drying of the wicks on the upper end of a wiper applicator.

Do not use wiper equipment when weeds are wet.

Mix only the amount of solution to be used during a 1-day period, as reduced activity may result from use of leftover solutions. Clean wiper parts immediately after using this product by thoroughly flushing with water.

Do not add surfactant to the herbicide solution.

**For Rope or Sponge Wick Applicators** - Mix 1 gallon of this product in 2 gallons of water to prepare a 33 percent solution. Apply this solution to weeds listed in this section.

**For Panel Applicators** - Solutions ranging from 33 to 100 percent of this product in water may be used in porous-plastic wiper applicators.

### **Injection Systems**

This product may be used in aerial or ground injection spray systems. It may be used as a liquid concentrate or diluted prior to injecting into the spray stream. Do not mix this product with the concentrate of other products when using injection systems.

### **CONTROLLED DROPLET APPLICATION (CDA) Equipment**

The rate of this product applied per acre by vehicle-mounted CDA equipment must not be less than the amount specified in this label when applied by conventional broadcast equipment.

For vehicle-mounted CDA equipment, apply 3 to 20 gallons of water per acre.

For the control of annual weeds with hand-held CDA units, apply a 20 percent solution of this product at a flow rate of 2 fluid ounces per minute and a walking speed of 1.5 mph (1 quart per acre). For the control of perennial weeds, apply a 20 to 40 percent solution of this product at a flow rate of 2 fluid ounces per minute and a walking speed of 0.75 mph (2 to 4 quarts per acre).

Controlled droplet application equipment produces a spray pattern which is not easily visible. Extreme care must be exercised to avoid spray or drift contacting the foliage or any other green tissue of desirable vegetation, as damage or destruction may result.

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### **ANNUAL AND PERENNIAL CROPS (Alphabetical)**

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This section is organized by crop category. There may be several labeled crops listed in a crop category.

SEE THE INDIVIDUAL CROP CATEGORIES FOR SPECIFIC DIRECTIONS, PREHARVEST INTERVALS, AND ADDITIONAL PRECAUTIONS AND RESTRICTIONS.

See the "ROUNDUP READY CROPS" section of this label or separately published CropSmart, LLC supplemental labeling for directions for treating Roundup Ready crops.

## TYPES OF APPLICATIONS

Chemical fallow, Pre-plant fallow beds, Pre-plant, Pre-emergence, At Planting, Hooded Sprayers in Row-Middles, Shielded Sprayers in Row-Middles, Wiper Applications in Row-Middles, and Post-Harvest Treatments.

Additional application types may be specified or allowed in individual Crop Categories.

## USE DIRECTIONS

Apply this product during fallow intervals preceding planting, prior to planting or transplanting, at planting, or pre-emergent to annual and perennial crops listed on this label, except where specifically limited. For any crop NOT listed on this label, applications must be made at least 30 days prior to planting. Unless otherwise specified, weed control applications may be made according to the rates listed in "ANNUAL WEEDS", "PERENNIAL WEEDS", and "WOODY BRUSH & TREES RATE TABLES" in this label. Repeat applications may be made up to a maximum of 8 quarts per acre per year.

Post-directed hooded sprayers and wiper equipment capable of preventing all crop contact with herbicide solutions may be used in mulched or un-mulched row middles after crop establishment. Where specifically noted below, wipers may also be used above certain crops to control tall weeds. Refer to the "SELECTIVE EQUIPMENT" section of this label for essential precautions when using hooded sprayers or wipers to avoid crop injury caused by leakage of spray mists or dripping onto crops. Crop injury is possible with these applications and shall be the sole responsibility of the applicator.

The maximum use rates stated throughout this product's labeling apply to this product combined with the use of all other herbicides containing glyphosate or sulfosate as the active ingredient, whether applied as mixtures or separately. Calculate the application rates and ensure that the total use of this and other glyphosate or sulfosate containing products does not exceed stated maximum use rate.

## PRECAUTIONS

- Avoid contact of herbicide with foliage, green shoots or stems, bark, exposed roots (including those emerging from plastic mulch), or fruit of crops because severe injury or destruction may result.
- Apply before seed germination in coarse sandy soils to further minimize the risk of injury.

## RESTRICTIONS

- When making pre-emergence and at planting applications, applications must be made before crop emergence to avoid severe crop injury. Broadcast applications made at emergence will result in injury or death to emerged seedlings.
- Unless otherwise specified in this product's labeling, treatments with selective equipment including wipers and hooded sprayers must be made at least 14 days prior to harvest.
- Post-harvest or fallow applications must be made at least 30 days prior to planting any non-labeled crop.
- In crops where spot treatments are allowed, do not treat more than 10 percent of the total field to be harvested. The crop receiving spray in treated area will be killed. Take care to avoid drift or spray outside the target area for the same reason.
- For broadcast post-emergent treatments, do not harvest or feed treated vegetation for 8 weeks following application unless otherwise specified.

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### Cereal Crops

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LABELED CROPS: Barley, Buckwheat, Millet (Pearl, Proso), Oats, Rice, Rye, Quinoa, Teff, Teosinte, Triticale, Wheat (All), Wild Rice.

TYPES OF APPLICATIONS: Preplant, preemergence, at-planting, spot treatment (except rice), over the top wiper applications (feed barley and wheat only), post-harvest, preharvest (feed barley and wheat only)

RESTRICTIONS: Do not treat rice fields or levees when the field contains floodwater.

### Preplant, Preemergence and At-planting



USE DIRECTIONS: This product may be applied before, during or after planting of cereal crops. Application must be made prior to emergence of the crop.

#### **Spot treatment (except rice)**

USE DIRECTIONS: This product may be applied as a spot treatment in cereal crops. Apply this product before heading in small grains.

RESTRICTIONS: Do not treat more than 10 percent of the total field area to be harvested. The crop receiving spray in the treated area will be killed. Do not allow drift or do not spray outside target area for the same reason.

#### **Postharvest**

USE DIRECTIONS: This product may be applied after harvest of cereal crops. Higher rates may be required for control of large weeds which were growing in the crop at the time of harvest. Tank mixtures with 2,4-D or dicamba may be used.

RESTRICTIONS: For any crop not listed on this label, applications must be made at least 30 days prior to planting the next crop. Allow a minimum of 7 days between treatment and harvest or feeding of treated vegetation.

#### **Preharvest (feed barley and wheat only)**

USE DIRECTIONS: This product provides weed control when applied prior to harvest of wheat. Apply after the hard-dough stage of grain (30% or less grain moisture) and at least 7 days prior to harvest. Wheat stubble may be grazed immediately after harvest.

This product may be applied using either aerial or ground spray equipment. For ground applications, apply this product in 10 to 20 gallons of water per acre. For aerial applications, apply this product in 3 to 10 gallons of water per acre.

RESTRICTIONS: Do not apply more than 1 quart of this product per acre. Do not apply to wheat or barley grown for seed, as a reduction in germination or vigor may occur. Allow 7 days between application and harvest or grazing.

#### **Over the Top Wiper applications (feed barley and wheat only)**

USE DIRECTIONS: Wiper applications may be used in wheat. To control common rye or cereal rye, apply after the weeds have headed and achieved maximum growth, when the rye is at least 6 inches above the wheat crop.

RESTRICTIONS: Allow at least 35 days between application and harvest. Do not use roller applicators.

#### **Red Rice Control Prior To Planting Rice (Texas only)**

USE DIRECTIONS: Apply 1.5 quarts of this product in 5 to 10 gallons of water per acre. Flush fields prior to application to obtain uniform germination and stand of red rice. Make application when the majority of the red rice plants are in the 2-leaf stage and no more than 4 inches tall. Red rice plants with less than 2 true leaves may only be partially controlled.

PRECAUTIONS: Avoid spraying during low humidity conditions, as reduced control may result.

RESTRICTIONS: DO NOT TREAT RICE FIELDS OR LEVEES WHEN THE FIELDS CONTAIN FLOOD WATER. DO NOT RE-FLOOD TREATED FIELDS FOR 8 DAYS FOLLOWING APPLICATION.

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### **Corn (Non-Roundup Ready)**

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TYPES OF CORN: Field corn, seed corn, silage corn, sweet corn, and popcorn

TYPES OF APPLICATIONS: Preplant, preemergence, at-planting, spot treatment, hooded sprayers, preharvest, post-harvest

#### **Preplant, Preemergence and At-planting**

USE DIRECTIONS: This product may be applied before, during or after planting corn.

Applications must be made prior to emergence of the crop.

**Tank Mixtures:** Apply these tank mixtures in 10 to 20 gallons of water or 10 to 60 gallons of nitrogen solution per acre.

2,4-D	Distinct	Lariat
Aim	Dual Magnum	Intr <u>o</u>
Atrazine	Dual Magnum II	Linex/Lorox
Axiom	Epic	Marksman
Balance	Frontier/Outlook	Micro-Tech
Bicep Magnum	Fultime	Prowl
Bicep II Magnum	Guar <u>d</u> sman/Leadoff	Python
Bullet	Harness	Simazine
Degree	Harness Xtra	Topnotch
Degree Xtra	Harness Xtra 5.6L	

For difficult-to-control weeds such as fall panicum, banyardgrass, crabgrass, shattercane and broadleaf signalgrass up to 2 inches tall, and Pennsylvania smartweed up to 6 inches tall, apply this product at 2 pints per acre in these tank mixtures. For other labeled weeds, apply 1.5 to 2 pints of this product per acre when weeds are less than 6 inches tall, and 2 to 3 pints when weeds are over 6 inches tall. When using nitrogen solutions as the carrier, use rate may need to be increased for acceptable weed control.

RESTRICTIONS: Applications of 2,4-D or dicamba must be made at least 7 days prior to planting corn.

For Southern states, do not apply nitrogen solutions to tough-to-control grasses such as barnyardgrass, fall panicum, broadleaf signalgrass, annual ryegrass and any perennial weeds.

The area covered by this direction includes from Route 50 South in Illinois and Indiana and the following states: Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, New Jersey, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia and West Virginia.

### Spot treatment

USE DIRECTIONS: For spot treatments, apply this product prior to silking of corn.

RESTRICTIONS: Do not treat more than 10 percent of the total field area to be harvested. The crop receiving spray in the treated area will be killed. Do not spray or allow drift outside target area for the same reason.

### Hooded Sprayers

USE DIRECTIONS: This product may be used through hooded sprayers for weed control between the rows of corn. Only hooded sprayers that completely enclose the spray pattern may be used.

See additional directions for the use of hooded sprayers in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label.

PRECAUTIONS: Contact of this product in any manner to any vegetation to which treatment is not intended may cause damage. Such damage shall be the sole responsibility of the applicator.

RESTRICTIONS: Corn must be at least 12 inches tall measured without extending leaves. Do not apply more than 1 quart of this product per acre for each application and no more than 3 quarts per acre per year for hooded sprayer applications.

### Preharvest

USE DIRECTIONS: Make applications at 35 percent grain moisture or less. Ensure that maximum kernel fill is complete and the corn is physiologically mature (black layer formed). For ground applications, apply up to 3 quarts of this product per acre. For aerial applications, apply up to 2 quarts of this product per acre.

**PRECAUTIONS:** Do not apply to corn grown for seed because a reduction in germination or vigor may occur.

**RESTRICTIONS:** Allow a minimum of 7 days between application and harvest.

### **Post-harvest**

**USE DIRECTIONS:** This product may be applied after harvest of corn. Higher specified rates may be used for control of large weeds which were growing in the crop at the time of harvest. Tank mixtures with 2,4-D or dicamba may be used.

**RESTRICTIONS:** Allow a minimum of 7 days between treatment and harvest or feeding of treated vegetation.

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## **Cotton (Non-Roundup Ready)**

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**TYPES OF APPLICATIONS:** Preplant, preemergence, at-planting, hooded sprayer, selective equipment, spot treatment, preharvest

### **Preplant, Preemergence, and At-planting**

**USE DIRECTIONS:** This product may be applied before, during or after planting cotton.

**RESTRICTIONS:** Applications must be made prior to emergence of the crop.

### **Hooded sprayer, Selective equipment**

**USE DIRECTIONS:** This product may be applied through hooded sprayers, shielded applicators or wiper applicators in cotton.

**RESTRICTIONS:** See the "SELECTIVE EQUIPMENT" part of the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for information on proper use and calibration of this equipment. Allow at least 7 days between application and harvest.

### **Spot treatment**

**USE DIRECTIONS:** For spot treatments, apply this product prior to boll opening of cotton.

**RESTRICTIONS:** Do not treat more than 10 percent of the total field area to be harvested. The crop receiving spray in treated area will be killed. Do not spray or allow drift outside target area for the same reason.

### **Preharvest**

**USE DIRECTIONS:** This product provides weed control and cotton regrowth inhibition when applied prior to harvest of cotton. For weed control, apply at rates given in the annual, perennial and woody brush tables. Apply 1 pint to 2 quarts of this product per acre for cotton regrowth inhibition.

Up to 2 quarts of this product may be applied using either aerial or ground spray equipment. Apply after sufficient bolls have developed to produce the desired yield of cotton. Applications made prior to this time could affect maximum yield potential.

**Tank Mixtures:** This product may be tank mixed with DEF® 6, Folex®, Ginstar or Prep™ to provide additional enhancement of cotton leaf drop.

**RESTRICTIONS:** Allow at least 7 days between application and harvest. Do not apply to cotton grown for seed, as a reduction in germination or vigor may occur. THE USE OF ADDITIVES OTHER THAN THOSE LISTED ON THIS LABEL, FOR PREHARVEST APPLICATION TO COTTON IS PROHIBITED.

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## **Fallow Systems**

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**TYPES OF APPLICATIONS:** Chemical fallow, preplant fallow beds, aid-to-tillage.

### **Chemical fallow**

**USE DIRECTIONS:** This product may be applied during the fallow period prior to planting or emergence of any crop listed on this label. This product may be used as a substitute for tillage to control annual

weeds in fallow fields. Also, broadcast or spot treatments will control or suppress many perennial weeds in fallow fields. Ground or aerial application equipment may be used. Tank mixtures with 2,4-D and dicamba may be used. Applications up to 2 quarts per acre may be made by aerial application in fallow sites where there is sufficient buffer to prevent injury due to drift onto adjacent crops.

**RESTRICTIONS:** For any crop not listed on this label, applications must be made at least 30 days prior to planting. **DO NOT APPLY DICAMBA TANK MIXTURES BY AIR IN CALIFORNIA.**

Refer to the specific product labels for crop rotation restrictions and cautionary statements of all products used in tank mixtures. Some crop injury may occur if dicamba is applied within 45 days of planting.

### **Preplant fallow beds**

**USE DIRECTIONS:** This product may be applied to fallow beds prior to planting or emergence of any crop listed on this label. This product will control weeds listed in the annual, perennial and woody brush tables.

**Tank Mixtures:** In addition, 12 fluid ounces of this product plus 2 to 3 oz of Goal® 2XL (or generic equivalent) per acre will control the following weeds with the maximum height or length indicated: 3"-common cheeseweed, chickweed, groundsel; 6"- London rocket, shepherdspurse.

16 fluid ounces of this product plus 2 to 3 oz of Goal® 2XL (or generic equivalent) per acre will control the following weeds with the maximum height or length indicated: 6"- common cheesewood, groundsel, marehail (*Conyza canadensis*), 12"- chickweed, London rocket, shepherdspurse.

**PRECAUTIONS:** Some crop injury may occur if dicamba is applied within 45 days of planting.

**RESTRICTIONS:** For any crop not listed on this label, applications must be made at least 30 days prior to planting. **DO NOT APPLY DICAMBA TANK MIXTURES BY AIR IN CALIFORNIA.**

Refer to the specific product labels for crop rotation restrictions and cautionary statements of all products used in tank mixtures.

### **Aid-to-tillage**

**USE DIRECTIONS:** This product may be used in conjunction with tillage practices in fallow systems or preplant to labeled crops to control downy brome, cheat, volunteer wheat, tansy mustard and foxtail.

Apply 12 fluid ounces of this product in 3 to 10 gallons of water per acre. Make applications before weeds are 6 inches in height. Application must be followed by conventional tillage practices no later than 15 days after treatment and before regrowth occurs.

**PRECAUTIONS:** Tank mixtures with residual herbicides may result in reduced performance.

**RESTRICTIONS:** Allow at least 1 day after application before tillage.

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## **Grain Sorghum (Milo)**

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**TYPES OF APPLICATIONS:** Preplant, preemergence, at-planting, spot treatment, over-the-top wiper applicators, hooded sprayers, preharvest, post-harvest

### **Preplant, Preemergence, At-planting**

**USE DIRECTIONS:** This product may be applied before, during or after planting grain sorghum. Applications must be made prior to emergence of the crop.

**Tank Mixtures:** Apply these tank mixtures in 10 to 20 gallons of water or 10 to 60 gallons of nitrogen solution per acre: atrazine, Bicep II Magnum, Bullet, Dual II Magnum, Lariat, Lasso, Micro-Tech, Milo-Pro.

For difficult-to-control annual weeds such as fall panicum, barnyardgrass, crabgrass, shattercane and broadleaf signalgrass up to 2 inches tall, and Pennsylvania smartweed up to 6 inches tall, apply this product at 2 pints per acre in these tank mixtures. For other labeled annual weeds, apply 1.5 to 2 pints of this product per acre when weeds are less than 6 inches tall, and 2 to 3 pints when weeds are over 6

inches tall. When using nitrogen solutions as the carrier, the use rate may need to be increased for acceptable weed control.

**RESTRICTIONS:** The crop receiving spray in treated area will be killed. Do not spray or allow drift outside target area for the same reason. Do not feed or graze treated milo fodder. Do not ensile treated vegetation. Do not use roller applicators.

### **Spot treatment and Over-the-Top Wiper applications**

**USE DIRECTIONS:** This product may be applied as a spot treatment in grain sorghum. Make spot treatments before heading of milo. This product may be applied with wiper applicators to control or suppress the weeds listed under "WIPER APPLICATORS" in the "SELECTIVE EQUIPMENT" section of this label.

**RESTRICTIONS:** Do not use roller applicators. Do not feed or graze treated milo fodder. Do not ensile treated vegetation. For spot treatment, do not treat more than 10 percent of the total field area to be harvested. The crop receiving spray in treated area will be killed. Do not spray or allow drift outside target area for the same reason. For wiper applicators, allow at least 40 days between application and harvest.

### **Hooded Sprayers**

**USE DIRECTIONS:** This product may be used through hooded sprayers for weed control between the rows of milo. Only hooded sprayers that completely enclose the spray pattern may be used. See additional directions for the use of hooded sprayers in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label.

Crop injury may occur when the foliage of treated weeds comes into direct contact with leaves of the crop. Do not apply this product when the leaves of the crop are growing in direct contact with weeds to be treated. Droplets, mist, foam or splatter of the herbicide solution may contact the crop and cause deterioration, stunting or destruction.

**PRECAUTIONS:** Treat before milo sends tillers between the drill rows. If such tillers are contacted with the spray solution, the main plant may be killed. Contact of this product in any manner to any vegetation to which treatment is not intended may cause damage. Such damage shall be the sole responsibility of the applicator.

**RESTRICTIONS:** Milo must be at least 12 inches tall, measured without extending leaves. Do not graze or feed milo forage or fodder following applications of this product through hooded sprayers.

Do not apply more than 1 quart of this product per acre per application and no more than 3 quarts per acre for hooded sprayer applications.

### **Preharvest**

**USE DIRECTIONS:** Make applications at 30% grain moisture or less. As with other herbicides that cause sudden plant death, avoid preharvest applications of this product to milo infected with charcoal rot as lodging can occur.

**RESTRICTIONS:** Do not apply more than 2 quarts of this product per acre. Allow a minimum of 7 days between application and harvest of sorghum. Do not use this product on sorghum grown for seed, as a reduction in germination or vigor may occur.

The use of this product for preharvest grain sorghum (Milo) is not registered in California.

### **Post-harvest**

**USE DIRECTIONS:** This product may be applied after harvest of grain sorghum. Higher rates may be required for control of large weeds which were growing in the crop at the time of harvest. Tank mixtures with 2,4-D or dicamba may be used.

This product may be applied to grain sorghum (milo) stubble following harvest to suppress or control regrowth. Apply 1 quart of this product per acre for control, or 1.5 pints of this product per acre for suppression.

RESTRICTIONS: Allow a minimum of 7 days between treatment and harvest or feeding of treated vegetation.

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### Herbs and Spices

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LABELED CROPS: Allspice, Angelica, Star anise, Annatto (seed), Balm, Basil, Borage, Burnet, Chamomile, Caper buds, Caraway, Black caraway, Cardamom, Cassia bark, Cassia buds, Catnip, Celery seed, Chervil (dried), Chive, Chinese chive, Cilantro (seed), Cinnamon, Clary, Clove buds, Coriander leaf (cilantro or Chinese parsley), Coriander seed (cilantro), Costmary, Cumin, Curry (leaf), Dill (dillweed), Dill (seed), Epazote, Fennel seed (common and Florence), Fenugreek, White ginger flower, Grains of paradise, Horehound, Hyssop, Juniper berry, Lavender, Lemongrass, Lovage (leaf and seed), Mace, Marigold, Marjoram (including oregano), Mexican oregano, Miaga flower, Mustard (seed), Nasturtium, Nutmeg, Parsley (dried), Pennyroyal, Pepper (black and white), Pepper leaves, Peppermint, Perilla, Poppy (seed), Rosemary, Rue, Saffron, Sage, Savory (summer and winter), Spearmint, Stevia leaves, Sweet bay, Tansy, Tarragon, Thyme, Vanilla, Wintergreen, Woodruff, Wormwood.

TYPES OF APPLICATIONS: Those listed in the "ANNUAL AND PERENNIAL CROPS" section plus the following: Over-the-Top Wiper Applications (Peppermint and Spearmint only), Spot Treatments (Peppermint and Spearmint only).

PRECAUTIONS: This product could cause crop injury. When applying this product prior to transplanting or direct-seeding crops into plastic mulch, care must be taken to remove residues of this product, which could cause crop injury, from the plastic prior to planting. Residues can be removed by a single 0.5-inch application of water, either by natural rainfall or via a sprinkler system. Care should be taken to ensure that the washwater flushes off the plastic mulch and does not enter transplant holes. Applications made at emergence will result in injury or death to emerged seedlings.

RESTRICTIONS: For some crops below, make applications 3 days before transplanting or planting.

#### **Over-the-Top Wiper Applications, Spot Treatments (Peppermint and Spearmint only)**

USE DIRECTIONS: This product may be used as a spot treatment or over the top of spearmint and peppermint with wiper applications. Apply spot treatments on a spray-to-wet basis with hand-held equipment, such as backpack and knapsack sprayers, pump-up pressure sprayers, hand-guns, hand-wands or any other hand-held or motorized spray equipment used to direct the spray solution to a limited area. In wiper applications, adjust the applicator so that the wiper contact point is at least 2 inches above the crop. Weeds should be a minimum of 6 inches taller than the crop.

PRECAUTIONS: Further applications may be made in the same area at 30-day intervals. In wiper applications, contact of the herbicide solution with the crop may result in damage or destruction.

RESTRICTIONS: Allow at least 7 days between application and harvest. In spot treatment applications, no more than 10 percent of the total field area to be harvested may be treated at one time. The crop receiving spray in the treated area will be killed. Take care to avoid drift or spray outside the target area for this reason.

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### Oil Seed Crops

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LABELED CROPS: Borage, Buffalo gourd (seed), Canola (non-Roundup Ready), Crambe, Flax, Jojoba, Lesquerella, Meadowfoam, Mustard (seed), Rape, Safflower, Sesame, Sunflower

TYPES OF APPLICATIONS: Those listed in the "ANNUAL AND PERENNIAL CROPS" section plus preharvest (sunflower and safflower) and post-harvest (sunflower and safflower)

USE DIRECTIONS: This product may be applied before, during or after planting oil seed crops listed in this section. Broadcast applications must be made prior to emergence of the listed oil seed crops. Wiper applicators or hooded sprayers may be used between the rows once the crop is established.

TANK MIXTURES: For sunflowers, a tank mixture with Prowl may be applied before, during or after planting in conventional tillage systems, into a cover crop, established sod or in previous crop residue.

**RESTRICTIONS:** Do not apply more than 2 quarts of this product per acre on canola. Do not apply more than 1 quart of this product per acre for sunflowers as a single pre-plant or pre-emergent application per year. Do not feed or graze sunflower forage following application of this product.

### **Preharvest**

**USE DIRECTIONS:** This product provides weed control when applied as a harvest aid to a physiologically mature crop prior to harvest of sunflower or safflower.

For safflower, apply when seed has lost its opaque character, approximately 20 to 30 days after the end of flowering of the secondary branches.

For sunflower, apply when the backsides of sunflower heads are yellow and bracts are turning brown and seed moisture content is less than 35%.

**RESTRICTIONS:** Allow a minimum of 7 days between treatment and harvest or livestock feeding. Apply no more than 3 quarts of this product at a preharvest timing to safflower. Apply no more than 1 quart of this product at a preharvest timing to sunflower.

### **Post-Harvest**

**USE DIRECTIONS:** This product may be applied after harvest of safflower or sunflower. Higher specified rates may be used for control of large weeds, which are growing in the crops at the time of harvest. Tank mixtures with 2,4-D or dicamba may be used.

**RESTRICTIONS:** Allow a minimum of 7 days between treatment and harvest or feeding of treated vegetation. Applications must be made at least 30 days prior to planting any crop not listed on this label.

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## **Soybeans (Non-Roundup Ready)**

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**TYPES OF APPLICATIONS:** Preplant, preemergence, at-planting, spot treatment, preharvest, selective equipment

### **Preplant, Preemergence and At-planting**

**USE DIRECTIONS:** This product may be applied before, during or after planting soybeans. Applications must be made prior to emergence of the crop.

This product may be tank-mixed with 2,4-D or 2,4-DB. See the 2,4-D label for intervals between application and planting.

For difficult-to-control weeds such as fall panicum, barnyardgrass, crabgrass, shattercane and broadleaf signalgrass up to 2 inches tall, and Pennsylvania smartweed up to 6 inches tall, apply this product at 2 pints per acre in these tank mixtures. For other labeled annual weeds, apply 1.5 to 2 pints of this product per acre when weeds are less than 6 inches tall, and 2 to 3 pints when weeds are over 6 inches tall.

The following tank mixtures may be applied before, during or after planting in conventional tillage systems, into a cover crop, established sod or in previous crop residue.

Aim	Firstate	Micro Tech
Assure II	Flexstar	Prowl
Authority	Frontline/Outlook	Pursuit
Boundry	Fusion	Pursuit Plus
Canopy	Gauntlet	Reflex
Canopy XL	Intrro	Scepter
Command	Linex	Sencor/Lexone
Domain	Lorox/Linuron	Squadron
Dual	Lorox Plus	Steel
Dual II Magnum	Magnum	Valor

**RESTRICTIONS:** The tank mix directions in this section are not registered in California.

**Spot treatment**

USE DIRECTIONS: For spot treatments, apply this product prior to initial pod set in soybeans.

RESTRICTIONS: Do not treat more than 10 percent of the total field area to be harvested. The crop receiving spray in treated area will be killed. Avoid drift or spraying outside target area for the same reason.

**Preharvest**

USE DIRECTIONS: This product provides weed control when applied prior to harvest of soybeans.

Apply at rates given in the annual, perennial and woody brush tables. This product may be applied using either aerial or ground spray equipment.

Apply after pods have set and lost all green color. Care should be taken to avoid excessive seed shatter loss due to ground application equipment.

RESTRICTIONS: Do not apply more than 5 quarts per acre of this product for pre-harvest applications. Do not apply more than 2 quarts per acre of this product by air. Allow a minimum of 7 days between application and harvest of soybeans. Do not graze or harvest treated hay or fodder for livestock feed within 25 days of last preharvest application. If the application rate is 1 quart per acre or lower, the grazing restriction is reduced to 14 days after the last preharvest application.

Do not apply to soybeans grown for seed as a reduction in germination or vigor may occur.

**Selective equipment**

USE DIRECTIONS: This product may be applied through shielded applicators, hooded sprayers, wiper applicators or sponge bars in soybeans. See the "SELECTIVE EQUIPMENT" part of the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for information on proper use and calibration of this equipment.

RESTRICTIONS: Allow at least 7 days between application and harvest.

**Sugarcane**

TYPES OF APPLICATIONS: Preplant, preemergence, at-planting, spot treatment, fallow, hooded sprayers

**Preplant, Preemergence and At-Planting**

USE DIRECTIONS: This product may be applied in or around sugarcane fields or in fields prior to the emergence of plant cane.

RESTRICTIONS: Do not apply to vegetation in or around canals or ponds containing water to be used for irrigation.

**Spot Treatment**

USE DIRECTIONS: This product may be applied as a spot treatment in sugarcane. For control of volunteer or diseased sugarcane, make a 1 percent solution of this product in water and spray to wet the foliage of vegetation to be controlled. Volunteer or diseased sugarcane should have at least 7 new leaves.

RESTRICTIONS: Avoid spray contact with healthy cane plants since severe damage or destruction may result. Do not feed or graze treated sugarcane foliage following application.

**Fallow treatments**

USE DIRECTIONS: This product may be used as a replacement for tillage in fields that are lying fallow between sugarcane crops. This product may also be used to remove the last stubble of ratoon cane. For removal of last stubble of ratoon cane, apply 4 to 5 quarts of this product in 10 to 40 gallons of water per acre to new growth having at least 7 new leaves.



Ground or aerial application equipment may be used. Applications up to 3 quarts per acre may be made by aerial application in fallow sites where there is sufficient buffer to prevent injury due to drift onto adjacent crops. Tank mixtures with 2,4-D and dicamba may be used.

RESTRICTIONS: Allow 7 or more days after application before tillage.

### **Hooded sprayers**

USE DIRECTIONS: This product may be used through hooded sprayers for weed control between the rows of sugarcane. See "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for additional use directions.

Minimize the potential for spray particles to escape from under the hood by operating the sprayer at appropriate ground speeds, nozzle pressures and wind speeds. Operation on rough or sloping ground may result in spray particles escaping from the hood.

When applying to sugarcane that is grown on raised beds, ensure that the hood is designed to completely enclose the spray. If necessary, extend the front and rear flaps of the hoods to reach the ground in furrows between the rows.

PRECAUTIONS: Droplets, mist, foam or splatter of the herbicide solution settling on the crop may result in discoloration, stunting or destruction. Such damage shall be the sole responsibility of the applicator.

RESTRICTIONS: Do not allow treated weeds to come into contact with the crop. **For aid in sugarcane ripening (Florida, Hawaii, Louisiana, Puerto Rico and Texas)**

USE DIRECTIONS: This product is a foliar-applied plant growth regulator to hasten ripening and increase the level of sucrose in sugarcane. It is effective in both low and high-tonnage sugarcane.

When applied as directed under the conditions described, this product will hasten ripening and extend the period of high sucrose level in sugarcane.

As a result of leaf desiccation, improved trash burn can be expected.

Most of the sucrose increase is concentrated in the top nodes of the treated cane stalk. In order to recover the maximum sugar where topping is practiced during harvest, top at the base of the fourth leaf.

Prior to application, consult your state sugarcane authority or local CropSmart, LLC representative regarding the degree of sucrose response anticipated from the variety of sugarcane to be treated. Do not plant subsequent crops in treated fields other than the following for 30 days after application: alfalfa or other forage legumes, beans (all types), corn (all types), cotton, melons (all types), pasture grasses, peanuts, potatoes (Irish or sweet), sorghum (milo), soybeans, squash (all types) or wheat.

APPLICATION RATES: Use the following application rates and timing directions according to the State in which the sugarcane is grown.

NOTE: Use the higher rate within the specified range when treating sugarcane under adverse ripening conditions or when less responsive varieties are to be treated.

FLORIDA – apply 5 to 12 fluid ounces of this product per acre 3 to 6 weeks before harvest of last ratoon cane only.

HAWAII – Apply 9 to 21 fluid ounces of this product per acre 4 to 10 weeks before harvest.

LOUISIANA – Apply 3.5 to 12 fluid ounces of this product per acre 3 to 7 weeks before harvest of ratoon cane only.

PUERTO RICO – Apply 5 fluid ounces of this product per acre 3 to 5 weeks before harvest of ratoon cane only.

TEXAS – Apply 5 to 12 fluid ounces of this product per acre 3 to 5 weeks before harvest of ratoon cane only.

PRECAUTIONS: Application of this product may initiate development of shooting eyes. This product may not increase the sucrose content of sugarcane under conditions of good nature ripening. Within 2 to 3

weeks after application, this product may produce a slight yellowing to pronounced browning and drying of leaves, and a shortening of upper internodes. Spindle death may occur.

Rainfall within 6 hours after application may reduce effectiveness.

**RESTRICTIONS:** Do not apply this product to sugarcane grown for seed, as a reduction in germination or vigor may occur. Do not feed or graze treated sugarcane forage following application. Do not apply for enhanced ripening to any crops other than sugarcane. Use of this product in any manner not consistent with this label may result in injury to persons, animals or crops, or other unintended consequences.

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### **Vegetable Crops**

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**NOTE:** THIS “VEGETABLE CROPS” SECTION GIVES DIRECTIONS THAT APPLY TO ALL LISTED VEGETABLE CROPS THAT ARE GROUPED ALPHABETICALLY BELOW. SEE THE INDIVIDUAL CROP CATEGORIES FOR SPECIFIC DIRECTIONS, PRE-HARVEST INTERVALS, PRECAUTIONS AND RESTRICTIONS.

**TYPES OF APPLICATIONS:** Chemical Fallow, Pre-plant Fallow Beds, Pre-plant, Pre-emergence, Prior to Transplanting Vegetables, At-Planting, Hooded Sprayers in Row-Middles, Shielded Sprayers in Row-Middles, Wiper Applications in Row-Middles, and Post-Harvest, Directed Applications (Nonbearing Ginseng), Over-the-Top Wiper Applications (Rutabagas only).

**PRECAUTIONS:** When applying this product prior to transplanting or direct-seeding crops into plastic mulch, care must be taken to remove residues of this product, which could cause crop injury, from the plastic prior to planting. Residues can be removed by a single 0.5-inch application of water, either by natural rainfall or via a sprinkler system. Care should be taken to insure that the wash water flushes off the plastic mulch and does not enter transplant holes. Applications made at emergence will result in injury or death to emerged seedlings.

Avoid contact of herbicide with foliage, green shoots or stems, bark, exposed roots (including those emerging from plastic mulch), or fruit of crops because severe injury or destruction may result.

**RESTRICTIONS:** When making pre-emergence and at-planting applications, applications must be made before crop emergence to avoid severe crop injury. Apply before seed germination in coarse sandy soils to further minimize risk of injury. In crops with vines, make applications to row middles using a hooded sprayer, shielded sprayer or wiper prior to vine development otherwise severe injury or destruction may result. Unless otherwise specified in this product’s labeling, treatments with selective equipment including wipers and hooded sprayers must be made at least 14 days prior to harvest. Post-harvest or fallow applications must be made at least 30 days prior to planting any non-labeled crop.

See the “APPLICATION EQUIPMENT AND TECHNIQUES” section of this label for additional information.

### **Brassica Vegetables**

**LABELED CROPS:** Broccoli, Chinese broccoli (gai lon), Broccoli raab (rapini), Brussels sprouts, Cabbage, Chinese cabbage (bok choy), Chinese cabbage (napa), Chinese mustard cabbage (gai choy), Cauliflower, Cavalo broccoli, Collards, Kale, Kohlrabi, Mizuna, Mustard greens, Mustard spinach, Rape greens

### **Bulb Vegetables**

**LABELED CROPS:** Garlic, Great-headed garlic, Leek, Onion (dry bulb and green), Welsh Onion, Shallot.

### **Cucurbit Vegetables and Fruits**

**LABELED CROPS:** Chayote (fruit), Chinese waxground, Citron melon, Cucumber, Gherkin, Gourds, Gourds (edible including hyotan, cucuzza, hechima, Chinese okra), Melons (all), *Momordica* spp. (includes balsam apple, balsam pear, bittermelon, Chinese cucumber), Muskmelon (includes cantaloupe, casaba, Crenshaw melon, golden pershaw melon, honeydew melon, honey ball melon, mango melon, Persian melon, pineapple melon, Santa Claus melon, snake melon), Pumpkin, Summer squash (includes crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini), Winter squash (includes butternut squash, calabaza, hubbard squash, acorn squash, spaghetti squash), Watermelon.

RESTRICTIONS: For Cantaloupe, Casaba melon, Crenshaw melon, Cucumber, Gherkin, Gourds, Honeydew melon, Honey ball melon, Mango melon, Melons (all), Muskmelon, Persian melon, Pumpkin, Squash (summer, winter), and Watermelon, allow at least 3 days between application and planting.

#### **Leafy Vegetables**

LABELED CROPS: Amaranth (Chinese spinach), Arugula (roquette), Beet greens, Cardoon, Celery (Chinese), Celtuce, Chaya, Chervil, Edible-leaved chrysanthemum, Garland chrysanthemum, Corn salad, Cress (garden and upland), Dandelion, Dock (sorrel), Dokudami, Endive (escarole), Florence fennel, Gow kee, Lettuce (head and leaf), Orach, Parsley, Purslane (garden and winter), Radicchio (red chicory), Rhubarb, Spinach, New Zealand spinach, Vine spinach, Swiss chard, Watercress (upland), Water spinach.

PRECAUTIONS: For Watercress, avoid applications within 3 days prior to seeding and during the period between seeding and emergence to minimize the risk of injury.

#### **Fruiting Vegetables**

LABELED CROPS: Eggplant, Groundcherry (*Physalis* spp), Pepino, Pepper (includes bell pepper, chili pepper, cooking pepper, pimento, sweet pepper), Tomatillo, Tomato.

RESTRICTIONS: For Eggplant, Groundcherry, Pepper (all), and Tomatillo, allow at least 3 days between application and planting. For Tomato, do not use hooded or shielded sprayer applications in row middles.

#### **Legume Vegetables (Succulent or Dried)**

LABELED CROPS: Bean (*Lupinus*: includes grain lupin, sweet lupin, white lupin, and white sweet lupin), Bean (*Phaseolus*: includes field bean, kidney bean, lima bean, navy bean, pinto bean, runner bean, snap bean, tepary bean, wax bean), Bean (*Vigna*: includes adzuki bean, asparagus bean, blackeyed pea, catjang, Chinese longbean, cowpea, crowder pea, moth bean, mung bean, rice bean, southern pea, urd bean, yardlong bean), Broad bean (fava), Chickpea (garbanzo), Guar, Jackbean, Lablab bean, Lentil, Pea (*Pisum*: includes dwarf pea, edible-podded pea, English pea, field pea, garden pea, green pea, snowpea, sugar snap pea), Pigeon pea, Soybean (immature seed), Sword bean.

#### **Preharvest broadcast spray (Dry beans, Dry peas, Lentils and Chickpeas):**

USE DIRECTIONS: This product may be applied as an over the top broadcast spray to control labeled weeds prior to the harvest of dry beans, dry peas, lentils, and chickpeas. Apply up to 32 fluid ounces (dry beans only) or 64 fluid ounces (dry peas, lentils and chickpeas) in 3 to 20 gallons of water per acre at the hard dough stage of the legume seed (30 percent grain moisture or less). Either ground broadcast or aerial applications may be made.

RESTRICTIONS: Apply at least 7 days before harvest of dry beans. Apply at least 14 days before harvest of dry peas, lentils and chickpeas. Only one application per year may be made; do not combine a preharvest spray with a spot treatment on the same crop area. Do not make a preharvest application to dry beans grown for seed, as a reduction in germination or vigor may occur. Do not feed treated vines and hay from these crops to livestock. Do not apply this product through any type of irrigation system. Do not treat cowpeas, since these are considered to be grown as livestock feed.

#### **Spot Treatment (Dry beans, Dry peas, Lentils and Chickpeas):**

USE DIRECTIONS: This product may be applied as a spot treatment to control troublesome weeds such as Canada thistle, quackgrass, mayweed (dog fennel), and milkweed in dry beans. Apply up to 26 fluid ounces in 10 to 20 gallons of water through ground spray equipment or use a 2 percent solution in a handheld sprayer. For best results, make applications at or beyond the bud stage of growth. The crop receiving spray in treated areas will be killed.

RESTRICTIONS: Apply at least 14 days before harvest. Only one application per year may be made; do not combine a preharvest spray with a spot treatment on the same crop area. Do not feed treated vines and hay from these crops to livestock. Do not apply this product through any type of irrigation system. Do not treat cowpeas, since these are considered to be grown as livestock feed.

#### **Root and Tuber Vegetables**

LABELED CROPS: Arracacha, Arrowroot, Chinese artichoke, Jerusalem artichoke, Beet (garden), Burdock, Canna, Carrot, Cassava (bitter and sweet), Celery, Chayote (root), Chervil (turnip-rooted), Chicory, Chufa, Dasheen (taro), Galangal, Ginger, Ginseng, Horseradish, Leren, Kava, Parsley, Parsnips, Potato (Irish), Radish, Oriental radish, Rutabaga, Salsify, Black Salsify, Spanish Salsify, Skirret, Sweet potato, Tanier, Tumeric, Turnip, Wasabi, Yacon, Yams, Yam bean, True yam.

#### **Directed Application (Non-bearing Ginseng only)**

USE DIRECTIONS: This product may be used for weed control in established non-bearing ginseng. Applications may be made with boom equipment, CDA, shielded sprayers, hand-held and high volume wands, lances, and orchard guns or with wiper application equipment.

PRECAUTIONS: Extreme care must be exercised to avoid contact of herbicide solution, spray, drift or mist with foliage or green bark of trunk, branches, suckers, fruit or other parts of desirable plants. Contact of this product with other than matured brown bark can result in serious crop damage.

RESTRICTIONS: Applications must be made at least one year prior to harvest.

#### **Over-the-Top Wiper Applications (Rutabagas only)**

USE DIRECTIONS: Wiper applications may be used over-the-top of rutabagas.

RESTRICTIONS: Allow at least 14 days between application and harvest of rutabagas.

#### **Miscellaneous Crops**

LABELED CROPS: Aloe vera, Asparagus, Bamboo shoots, Globe artichoke, Okra, Peanut (ground nut), Pineapple, Strawberry, Sugar beet (non-Roundup Ready).

TYPES OF APPLICATIONS: Those listed in the "ANNUAL AND PERENNIAL CROPS" section of this label plus the following: Weed Control, Site Preparation, Spot Treatment (Asparagus), Post-harvest (Asparagus).

RESTRICTIONS: Avoid contact of herbicide with foliage, green shoots or stems, bark, exposed roots (including those emerging from plastic mulch), or fruit of crops because severe injury or destruction may result.

When making pre-emergence and at-planting applications, applications must be made before crop emergence to avoid severe crop injury. Apply before seed germination in coarse sandy soils to further minimize the risk of injury. In crops with vines, make applications to the row middles using a hooded sprayer, shielded sprayer or wiper prior to vine development otherwise severe injury or destruction may result. Unless otherwise specified in this product's labeling, treatments with selective equipment including wipers and hooded sprayers must be made at least 14 days prior to harvest. Post-harvest or fallow applications must be made at least 30 days prior to planting any non-labeled crop. "See "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for additional information.

#### **Weed Control, Site Preparation**

USE DIRECTIONS: This product may be applied for weed control or for site preparation prior to planting or transplanting crops listed in this section.

PRECAUTIONS: When applying this product prior to transplanting or direct-seeding crops into plastic mulch, care must be taken to remove residues of this product, which could cause crop injury, from the plastic prior to planting. Residues can be removed by a single 0.5-inch application of water, either by natural rainfall or via a sprinkler system. Care should be taken to insure that the wash water flushes off the plastic mulch and does not enter transplant holes. Applications made at emergence will result in injury or death to emerged seedlings.

RESTRICTIONS: Do not apply within a week before the first asparagus spears emerge. Do not feed or graze treated pineapple forage following application.

#### **Spot Treatment (Asparagus)**

USE DIRECTIONS: This product may be applied immediately after cutting, but prior to the emergence of new spears.

RESTRICTIONS: Do not treat more than 10 percent of the total field area to be harvested. Do not harvest within 5 days of treatment.

### **Post-Harvest (Asparagus)**

USE DIRECTIONS: This product may be applied after the last harvest and all spears have been removed. If spears are allowed to re-grow, delay application until ferns have developed. Make applications for delayed treatments as a direct or shielded spray in order to avoid contact of the spray with ferns, stems or spears.

PRECAUTIONS: Select and use specified types of spray equipment for post-emergence post-harvest applications. A directed spray is any application where the spray pattern is aligned in such a way as to avoid direct contact of the spray with the crop. A shielded spray is any application where a physical barrier is positioned and maintained between the spray and the crop to prevent contact of spray with the crop.

RESTRICTIONS: Direct contact of the spray with the asparagus may result in serious crop injury.

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### **Tree, Vine and Shrub Crops**

NOTE: THIS SECTION GIVES DIRECTIONS THAT APPLY TO ALL LISTED TREE, VINE, AND SHRUB CROPS LISTED AND GROUPED ALPHABETICALLY BELOW. SEE THE INDIVIDUAL CROP CATEGORIES FOR SPECIFIC DIRECTIONS, PRE-HARVEST INTERVALS, PRECAUTIONS AND RESTRICTIONS.

TYPES OF APPLICATIONS: Pre-plant (Site Preparation) Broadcast Sprays, Weed Control, Middles (between rows of trees, vines or bushes), Strips (within rows of trees vines or shrubs), Selective Equipment (shielded sprayers, wiper treatments), Directed sprays, Spot Treatments, Perennial Grass Suppression, Cut Stump.

Applications may be made with boom equipment, CDA equipment, shielded sprayers, hand-held and high-volume wands, lances, orchard guns or with wiper applicator equipment, except as directed.

USE DIRECTIONS: This product may be applied in middles (between rows of trees or vines), strips (within rows of trees or vines), and for weed control or perennial grass suppression in established tree fruit and tree nut groves, orchards, berries, and vineyards. It may also be used for site preparation prior to planting or transplanting these crops. **Apply 1 pint to 5 quarts per acre according to the “ANNUAL WEEDS” and “PERENNIAL WEEDS RATE TABLES” sections of this label.** Utilize rates at the higher end of the specified rate range when weeds are stressed, growing in dense populations or are greater than 12 inches tall. Repeat applications may be made up to a maximum of 10.6 quarts per acre per year.

The maximum use rates stated throughout the products labeling apply to this product combined with the use of all other herbicides containing glyphosate or sulfosate as the active ingredient, whether applied as mixtures or separately. Calculate the application rates and ensure that the total use of this and other glyphosate or sulfosate containing products does not exceed stated maximum use rate.

PRECAUTIONS: Extreme care must be exercised to avoid contact of herbicide solution, spray, drift or mist with foliage or green bark of trunk, branches, suckers, fruit or other parts of trees, canes and vines. Avoid applications when recent pruning wounds or other mechanical injury has occurred. Contact of this product with other than matured brown bark can result in serious crop damage or destruction. For applications in strips (within rows of trees), use only selective equipment (directed sprays, hooded sprayers, shielded applicators, or wipers) to minimize the potential for leakage or drift of herbicide sprays onto crop. See the “APPLICATION EQUIPMENT AND TECHNIQUES” section of this label for additional directions and precautions.

RESTRICTIONS: Only shielded or directed sprayers may be used in crops with potential for crop contact, and then only where there is sufficient clearance. For berry crops, hooded or shielded sprayers must be fully enclosed including top, sides, front and back. Only wipers or shielded applicators capable of

preventing all contact with crop may be used. Allow a minimum of 3 days between application and transplanting.

### **Middles (Between Rows of Trees, Vines or Bushes)**

**USE DIRECTIONS:** This product will control or suppress annual and perennial weeds and ground covers growing between the rows of labeled tree and vine crops. If weeds are under drought stress, irrigate prior to application. Reduced control may result if weeds have been mowed prior to application.

**TANK MIXTURES:** A tank mixture of this product plus Goal 2XL (or generic equivalent) may be used for annual weeds in middles (between rows) of citrus crops, tree fruits, tree nuts and vine crops. Use this mixture when weeds are stressed or growing in dense populations. 16 to 32 fluid ounces per acre of this product plus 3 to 12 fluid ounces per acre of Goal 2XL will control annual weeds with a maximum height or diameter of 6 inches, including crabgrass, common groundsel, junglerice, common lambsquarters, redroot pigweed, London rocket, common ryegrass, shepherd's purse, annual sowthistle, filaree (suppression), horseweed/marestail (*Conyza canadensis*), stinging nettle and common purslane (suppression). 16 to 32 fluid ounces per acre of this product plus 3 to 12 fluid ounces per acre of Goal 2XL will control common cheeseweed (malva) or hairy fleabane (*Conya bonariensis*) with a maximum height or diameter of 3 inches.

### **Strips (in Rows of Trees, Vines or Bushes)**

**TANK MIXTURES:** This product may be applied in rows of tree or vine crops in tank mixtures with the following products:

Devrinol<sup>®</sup> 50 DF, Simazine 4L, Direx<sup>®</sup> 4L, Simazine 80W, Goal<sup>®</sup> 2XL, Sim-Trol<sup>™</sup> 4L, Karmex<sup>®</sup> DF, Solicam<sup>®</sup> DF, Krovar<sup>®</sup> I, Krovar II, Surflan<sup>®</sup> AS, Princep<sup>®</sup> Caliber 90, Surflan 75 W, Prowl<sup>®</sup>

**RESTRICTIONS:** Do not apply these tank mixtures in Puerto Rico.

Refer to the individual product labels for specific crops, rates, geographic restrictions and precautionary statements.

### **Perennial Grass Suppression**

This product will suppress perennial grasses such as bahiagrass, Bermudagrass, tall fescue, orchardgrass, Kentucky bluegrass, and quackgrass that are grown as ground covers in tree and vine crops.

For suppression of tall fescue, fine fescue, orchardgrass and quackgrass, apply 8 fluid ounces of this product in 10 to 20 gallons of water per acre. For suppression of Kentucky bluegrass covers, apply 6 fluid ounces of this product per acre. Do not add ammonia sulfate.

For best results, mow cool season grass covers in the spring to even their height and apply this product 3 to 4 days after mowing.

For suppression of vegetative growth and seedhead inhibition of bahiagrass for approximately 45 days, apply 6 fluid ounces of this product in 10 to 25 gallons of water per acre. Apply 1 to 2 weeks after full green-up or after mowing to a uniform height of 3 to 4 inches. This application must be made prior to seedhead emergence.

For suppression up to 120 days, apply 4 fluid ounces of this product per acre, followed by an application of 2 to 4 fluid ounces per acre about 45 days later. Make no more than 2 applications per year.

For burndown of Bermudagrass, apply 1 to 2 quarts of this product in 3 to 20 gallons of water per acre. Use this treatment only if reduction of the Bermudagrass stand can be tolerated. When burndown is required prior to harvest, allow at least 21 days to ensure sufficient time for burndown to occur.

For suppression of Bermudagrass, apply 6 to 16 fluid ounces of this product per acre east of the Rocky Mountains and 16 fluid ounces of this product per acre west of the Rocky Mountains. Apply in a total spray volume of 3 to 20 gallons per acre, no sooner than 1 to 2 weeks after full green-up. If the Bermudagrass is mowed prior to application, maintain a minimum of 3 inches in height. Sequential applications may be made when re-growth occurs and Bermudagrass injury and stand reduction can be tolerated. East of the Rocky Mountains, only apply at rates of 6 to 10 fluid ounces of this product per acre used in shaded conditions or where a lesser degree of suppression is desired.

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### Cut Stump (Tree Crops)

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**TYPES OF APPLICATIONS:** Suitable Hand-held equipment.

**USE DIRECTIONS:** Cut stump applications of this product may be made during site preparation for site renovation, prior to transplanting tree crops. This product will control re-growth of cut stumps and resprouts of many types of tree species, some of which are listed below.

**Citrus Trees:** Calamondin, Chironja, Citron, Citrus hybrids, Grapefruit, Kumquat, Lemon, Lime, Mandarin (Tangerine), Orange (all), Pummelo, Tangelo, Tangor

**Fruit Trees:** Apple, Apricot, Cherry (sweet, sour), Crabapple, Loquat, Mayhaw, Nectarine, Olive, Peach, Pear, Plum/Prune (all), Quince

**Nut Trees:** Almond, Beechnut, Brazil Nut, Butternut, Cashew, Chestnut, Chinquapin, Filbert (hazelnut), Hickory Nut, Macadamia, Pecan, Pistachio, Walnut (black, English)

Apply this product using suitable equipment to ensure coverage of the entire cambium. Cut trees or resprouts close to the soil surface. Apply a 50 to 100 percent solution of this product to the freshly cut surface immediately after cutting. Delays in application may result in reduced performance. For best results, make applications during periods of active growth and full leaf expansion.

**PRECAUTIONS:** Some sprouts, stems, or trees may share the same root system. Adjacent trees having a similar age, height and spacing may signal shared roots. Whether grafted or shared, injury is likely to occur to non-treated stems/trees when one or more trees sharing common roots are treated.

**RESTRICTIONS:** DO NOT MAKE CUT STUMP APPLICATIONS WHEN THE ROOTS OF ADJACENT DESIRABLE TREES MAY BE GRAFTED TO THE ROOTS OF THE CUT STUMP. INJURY RESULTING FROM ROOT GRAFTING MAY OCCUR IN ADJACENT TREES.

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### Berry Crops

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**LABELED CROPS:** Blackberry (including bingleberry, black satin berry, boysenberry, Cherokee blackberry, chesterberry, Cheyenne blackberry, coryberry, darrowberry, dewberry, Dirksen thornless berry, Himalayaberry, hullberry, juneberry, lavacaberry, lowberry, lucretiaberry, marionberry, nectarberry, olallieberry, Oregon evergreen berry, phenomenalberry, rangeberry, ravenberry, Shawnee (blackberry and youngberry), Blueberry, Cranberry, Currant, Elderberry, Gooseberry, Huckleberry, Loganberry, Salal.

**TYPES OF APPLICATIONS:** Those listed in the "TREE, VINE, AND SHRUB CROPS (Alphabetical)" section above plus Spot Treatment in Cranberry Production and Post-Harvest Treatments in Cranberry Production.

**RESTRICTIONS:** To avoid damage, herbicide sprays must not be allowed to contact desirable vegetation, including green shoots, canes or foliage. Allow a minimum of 30 days between last application and harvest in cranberries. Allow a minimum of 14 days between last application and harvest in other berry crops. Do not make directed sprays within the cranberry bush areas prior to berry harvest.

#### Spot Treatment in Cranberry Production

**USE DIRECTIONS:** Spot treatments may be used to control weeds growing in dry ditches (interior and perimeter) of cranberry production areas. Hand-held sprayers or other appropriate application equipment listed under "APPLICATION EQUIPMENT AND TECHNIQUES" in this label may be used. Drop water level to remove standing water in ditches prior to application. In hand-held sprayers, use 1 to 2 percent solution of this product. Spray to wet vegetation, not to run-off.

**PRECAUTIONS:** For treatments after draw-down of water in dry ditches, allow 2 or more days after treatment before reintroduction of water to achieve maximum weed control. Apply this product within 1 day after draw-down to ensure application to actively growing weeds.

**RESTRICTIONS:** Allow a minimum of 30 days between last application and harvest of cranberries. Do not make applications by air. Do not apply directly to water. Use nozzles that emit medium-to-large sized droplets to minimize drift in order to avoid crop injury. Do not apply this product through irrigation system.

### Post-Harvest Treatments in Cranberry Production

**USE DIRECTIONS:** Application of this product may be made after the harvest of cranberries to control weeds growing within the field. Best results will be obtained if applications are made to vines that appear dormant (after they have turned red). Hand-held sprayers, wipers, or other appropriate application equipment listed under "APPLICATION EQUIPMENT AND TECHNIQUES" in this label may be used. If using hand-held sprayers, use a 0.5 to 1 percent solution of this product. Spray to wet vegetation, not to run-off. If using hand-held boom sprayers, apply 2 to 4 quarts of this product per acre.

**PRECAUTIONS:** Even though vines appear dormant, contact of the herbicide solution with desirable vegetation may result in damage or severe plant injury. Cranberry plants that are directly sprayed may be killed.

**RESTRICTIONS:** Do not treat more than 10 percent of the total bog. Allow a minimum of 6 months after the last application and next harvest of cranberries. Do not apply this product through the irrigation system. Do not make applications by air. Do not apply directly to water.

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### Citrus

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**LABELED CROPS:** Calamondin, Chironja, Citron, Citrus Hybrids, Grapefruit, Kumquat, Lemon, Lime, Mandarin (tangerine), Orange (all), Pummelo, Satsuma mandarin, Tangelo (ugli), Tangor.

**TYPES OF APPLICATIONS:** Those listed in the "TREE, VINE, AND SHRUB CROPS (Alphabetical)" section of this label.

**USE DIRECTIONS: (The directions below pertain to applications in Florida and Texas only):** For burndown or control of the weeds listed below, apply the specified rates of this product in 3 to 40 gallons of water per acre. Where weed foliage is dense, use 10 to 30 gallons of water per acre. For goatweed, apply 2 to 3 quarts of this product per acre. Apply in 20 to 30 gallons of water per acre when plants are actively growing. Use 2 quarts per acre when plants are less than 8 inches tall and 3 quarts per acre when plants are greater than 8 inches tall. If goatweed is greater than 8 inches tall, the addition of Krovar® II or Karmex® may improve control. Refer to the individual product labels for specific crops, rates, geographic restrictions and precautionary statements.

#### Perennial weeds:

S= Suppression

B= Burndown

PC= Partial Control

C= Control

WEED SPECIES	CROP\$MART GLYPHOSATE 41% EXTRA RATE PER ACRE			
	1 QT	2 QT	3 QT	5 QT
Bermudagrass	B	--	PC	C
Guineagrass:				
Texas and Florida Ridge	B	C	C	C
Florida Flatwoods	--	B	C	C
Paragrass	B	C	C	C
Torpedograss	S	--	PC	C

**RESTRICTIONS:** Allow a minimum of 1 day between last application and harvest in citrus crops. For citron groves, apply as directed sprays only.

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### Miscellaneous Tree Food Crops

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**LABELED CROPS:** Cactus (fruit and pads), Palm (heart, leaves), Palm (oil).



TYPES OF APPLICATIONS: Those listed in the “TREE, VINE, AND SHRUB CROPS (Alphabetical)” section above.

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### Non-Food Tree Crops

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LABELED CROPS: Pine, Poplar, Eucalyptus, Christmas Trees, Other Non-Food Tree Crops.

TYPES OF APPLICATIONS: Those listed in the “TREE, VINE, AND SHRUB CROPS (Alphabetical)” section above.

#### **Directed Sprays, Spot Treatment, Wiper Applications**

USE DIRECTIONS: This product may be used as a post-directed spray and spot treatment around established poplar, eucalyptus, Christmas trees and other non-food tree crops.

PRECAUTIONS: Care must be exercised to avoid contact of spray, drift or mist with foliage or green bark of established Christmas trees and other pine trees. Desirable plants may be protected from the spray solution by using shields or coverings made of cardboard or other impermeable material.

RESTRICTIONS: DO NOT USE THIS PRODUCT AS AN OVER-THE-TOP BROADCAST SPRAY IN CHRISTMAS TREES AND OTHER PINE TREES.

#### **Site Preparation**

USE DIRECTIONS: This product may be used prior to planting nonfood tree crops.

Take all necessary precautions to protect non-target plants during site preparation applications.

#### **Directed Spray (Eucalyptus and Poplar Production)**

USE DIRECTIONS: This product can be used around established eucalyptus and poplar trees to control undesirable vegetation. Use a 1 to 2 percent spray solution to control herbaceous weeds in eucalyptus farms. Use a 2 percent spray solution for control of undesirable woody brush and trees. For hard-to-control weeds, use a 5 to 10 percent spray solution. Avoid contact of spray, drift, or mist with foliage, green bark or non-woody surface roots of plants.

RESTRICTIONS: AVOID HERBICIDE CONTACT WITH DESIRABLE VEGETATION. Desirable vegetation contacted by the herbicide solution may be injured or killed. This includes foliage, fruit, or green stems.

#### **Wiper Application (Eucalyptus and Poplar Production)**

USE DIRECTIONS: This product may be used through wick or other suitable wiper applicators for control or partial control of grass and broadleaf weeds listed in the WEEDS CONTROLLED section of this label. For wick applicators, mix 1 gallon of this product with 2 gallons water to make a 33% solution. For wiper systems that can handle thicker solutions, such as force-fed systems, a 33 to 100% solution may be used. For best results, ensure that the herbicide solution is allowed to contact the maximum amount of leaf surface. As weed densities increase, decrease equipment speed to allow sufficient herbicide flow to wet all weed surfaces contacted. Weeds not contacted will be unaffected.

RESTRICTIONS: AVOID HERBICIDE CONTACT WITH DESIRABLE VEGETATION. Desirable vegetation contacted by the herbicide solution may be injured or killed. This includes foliage, fruit, or green stems.

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### Pome Fruit

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LABELED CROPS: Apple, Crabapple, Loquat, Mayhaw, Pear (including oriental pear), Quince.

TYPES OF APPLICATIONS: Those listed in the “TREE, VINE, AND SHRUB CROPS (Alphabetical)” section above.

RESTRICTIONS: Allow a minimum of 1 day between last application and harvest in pome fruits.

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### Stone Fruit

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LABELED CROPS: Apricot, Cherry (sweet, tart), Nectarine, Olive, Peach, Pear, Plum/Prune (all types), Plumcot.

TYPES OF APPLICATIONS: Those listed in the “TREE, VINE, AND SHRUB CROPS (Alphabetical)” section above.

RESTRICTIONS: Allow a minimum of 17 days between last application and harvest in stone fruit crops. For olive groves, apply as directed sprays only.

#### **Restrictions on Application Equipment**

For cherries, any application equipment listed in this section may be used in all states.

Any application equipment listed in this section may be used in apricots, nectarines, peaches and plums/prunes growing in Arizona, California, Colorado, Idaho, Kansas, Kentucky, New Jersey, North Dakota, Oklahoma, Oregon, Texas, Utah and Washington, except for peaches grown in the states specified in the following paragraph. In all other states, use wiper equipment only.

For **PEACHES** grown in Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina and Tennessee only, apply with a shielded boom sprayer or shielded wiper applicator, which prevents any contact of this product with the foliage or bark of trees. Apply no later than 90 days after first bloom. Applications made after this time may result in severe damage. Remove suckers and low-hanging limbs at least 10 days prior to application. Avoid applications near trees with recent pruning wounds or other mechanical injury. Apply only near trees that have been planted in the orchard for 2 or more years.

EXTREME CARE MUST BE TAKEN TO ENSURE NO PART OF THE PEACH TREE IS CONTACTED.

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#### **Tree Nuts**

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LABELED CROPS: Almond, Beechnut, Betelnut, Brazil nut, Butternut, Cashew, Chestnut, Chinquapin, Coconut, Filbert (hazelnut), Hickory nut, Macadamia, Pecan, Pine nut, Pistachio, Walnut (black, English)

TYPES OF APPLICATIONS: Those listed in the “TREE, VINE, AND SHRUB CROPS (Alphabetical)” section above.

RESTRICTIONS: Allow a minimum of 3 days between last application and harvest of tree nuts, except coconut. Allow 14 days between application and harvest in coconut.

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#### **Tropical and Subtropical Trees and Fruits**

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LABELED CROPS: Ambarella, Atemoya, Avocado, Banana, Barbados cherry (acerola), Biriba, Blimbe, Breadfruit, Cacao (cocoa) bean, Canistel, Carambola (starfruit), Cherimoya, Coffee, Custard apple, Dates, Durian, Feijoa, Figs, Governor's plum, Guava, Llama, Imbe, Imbu, Jaboticaba, Jackfruit, Longan, Lychee, Mamey apple, Mango, Mangosteen, Marmaladebox (genip), Mountain papaya, Papaya, Pawpaw, Plantain, Persimmon, Pomegranate, Pulasan, Rambutan, Rose apple, Sapodilla, Sapote (black, mamey, white), Spanish lime, Soursop, Star apple, Sugar apple, Surinam cherry, Tamarind, Tea, Ti (roots and leaves), Wax jambu.

TYPES OF APPLICATIONS: Those listed in the “TREE, VINE, AND SHRUB CROPS (Alphabetical)” section above plus Bananacide (Banana only).

USE DIRECTIONS: This product may be applied for weed control or for site preparation prior to transplanting crops listed in this section.

RESTRICTIONS: Allow a minimum of 1 day between last application and harvest in banana, guava, papaya, and plantain crops. Allow a minimum of 14 days between last application and harvest for any other tropical and subtropical tree fruit. Allow a minimum of 28 days between last application and harvest in coffee crops. In coffee and banana, delay applications 3 months after transplanting to allow the new coffee or banana plant to become established.

#### **Bananacide (Banana only)**

USE DIRECTIONS: This product may be used to destroy banana plants infected with the Banana Bunchy Top Virus as well as non-infected banana plants to establish disease free buffers around plantations.

Remove all fruit from the plants within the treatment area prior to treatment. Inject 0.04 fluid ounce (1 mL) of this product's concentrate per 2 to 3 inches of pseudostem diameter. Make the injection at least one

foot above the ground, except for very small plants, which should be injected vertically into the top. Any subsequent re-growth must also be destroyed. All plants and mats (or units) adjacent (within a 4-foot radius) to a treated mat shall be mechanically destroyed.

For control of the Banana Bunchy Top Virus, it is critical that the grower follow a strict control program involving monitoring for diseased plants, spraying to control the aphid vector, and destruction of all infected mats (or units). An infected plant may not show symptoms of the banana bunchy top virus for up to 125 days, therefore it is critical that the entire mat (or unit) containing the diseased plant be destroyed immediately.

RESTRICTIONS: Do not apply more than 0.5 fluid ounce (15 ml) of this product's concentrate per mat (or unit). Remove all fruit from plants and mats (or units) prior to treatment. Do not harvest any fruit or plant materials from treated mats (or units) following injection. Do not allow livestock to consume treated plant materials. Following transplant of new banana plants into treated areas, allow plants to become established for 3 months before applying this product for weed control.

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### VINE CROPS

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LABELED CROPS: Grapes (raisin, table, wine), Hops, Kiwi, Passion fruit.

TYPES OF APPLICATIONS: Those listed in the "TREE, VINE, AND SHRUB CROPS (Alphabetical)" section above.

USE DIRECTIONS: Do not make applications when green shoots, cane or foliage are in the spray zone.

In the Northeast and Great Lakes regions, applications must be made prior to the end of bloom stage of grapes to avoid injury, or make applications with shielded sprayers or wiper equipment.

RESTRICTIONS: Allow a minimum of 14 days between last application and harvest in vine crops. Do not use selective equipment in kiwi.

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### PASTURE GRASSES, FORAGE LEGUMES AND RANGELANDS

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#### **Alfalfa, Clover, and Other Forage Legumes**

LABELED CROPS: Alfalfa, Clover, Kenaf, Kudzu, Lespedeza, Leucaena, Lupin, Sainfoin, Trefoil, Velvet bean, Vetch (all types).

TYPES OF APPLICATIONS: Pre-plant, Pre-emergence, At-Planting, Spot Treatment, Over-the-Top Wiper Applications (alfalfa and clover only), Dormant (alfalfa only), Renovation, Pre-harvest (alfalfa only).

#### **Pre-plant, Pre-emergence, At-Planting**

USE DIRECTIONS: This product may be applied before, during or after planting crops listed in this section. Applications must be made prior to emergence of the crop. MAKE APPLICATIONS ACCORDING TO THE RATES LISTED IN "ANNUAL WEEDS", "PERENNIAL WEEDS", AND "WOOD BRUSH & TREE RATE TABLES" IN THIS LABEL.

RESTRICTIONS: If a single application is made at rates of 2 quarts per acre or less, no waiting period between treatment and feeding or grazing is required. If application rates greater than 2 quarts per acre are made, remove domestic livestock before application and wait 8 weeks after application before grazing or harvesting.

#### **Spot Treatment, Over-the-Top Wiper Applications (Alfalfa and Clover only)**

USE DIRECTIONS: This product may be applied as a spot treatment or with wiper applicators. For wipers, see the "Wiper Applicators" in the "Selective Equipment" section of this label. Applications may be made in the same area at 30-day intervals.

RESTRICTIONS: For spot treatment and wiper applications, apply in areas where the movement of domestic livestock can be controlled. Do not treat more than 10 percent of the total field area at one time. Remove domestic livestock before application and wait 14 days after application before grazing livestock or harvesting.

#### **Dormant (Alfalfa only)**

**USE DIRECTIONS:** This product will control or suppress many weeds including quackgrass, downy brome and cheatgrass in dormant alfalfa. Apply 8 to 12 ounces per acre of this product. Apply in the spring to alfalfa that is dormant. Applications should be made after spring temperatures have warmed enough to encourage resumption of weed growth, but prior to initiation of trifoliate leaf expansion of the alfalfa. Applications made after expansion of the first trifoliate leaf of the alfalfa will cause growth reduction and reduced crop yield.

Slight discoloration of the alfalfa may occur, but the alfalfa will regreen and regrow under moist soil conditions as effects of this product wear off.

**PRECAUTIONS:** Application of this product can cause crop injury. Any crop injury is the sole responsibility of the applicator.

**RESTRICTIONS:** Do not use ammonium sulfate when spraying dormant alfalfa with this product. Do not use this product where a slight yield reduction in the first cutting of alfalfa cannot be tolerated. Do not make more than one application per year. Allow 36 hours after application before grazing livestock or harvesting.

### **Pre-harvest (Alfalfa only)**

**USE DIRECTIONS:** This product may be used in declining stands or any stand where crop destruction is acceptable. This application will severely injure or destroy the stand of alfalfa. This product will control annual and perennial weeds, including quackgrass, when applied prior to crop harvest. Use up to 1 quart of this product per acre. Applications may be made at any time of the year. For control of quackgrass, apply in the spring, late summer or fall when quackgrass is actively growing. Treatments for quackgrass must be followed by deep tillage for complete control.

**RESTRICTIONS:** Make only one application to an existing crop stand per year. Do not apply more than 2 quarts of this product per acre as a preharvest treatment. Do not use alfalfa grown for seed, as a reduction in germination or vigor may occur. The treated crop and weeds can be harvested and fed to livestock after 36 hours.

### **Renovation**

**USE DIRECTIONS:** This product may be applied as a broadcast spray to renovate existing stands of alfalfa, clover, and other labeled forage legumes. Labeled crops may be planted into the treated area. MAKE APPLICATIONS ACCORDING TO THE RATES LISTED IN "ANNUAL WEEDS", "PERENNIAL WEEDS", AND "WOOD BRUSH & TREE RATES" IN THIS LABEL.

**RESTRICTIONS:** Remove domestic livestock before application. If application rates of 2 quarts per acre or less are used wait 36 hours after application before grazing or harvesting. If application rates greater than 2 quarts per acre are used, wait 8 weeks after application before grazing or harvesting.

### **Conservation Reserve Program (CRP)**

**TYPES OF APPLICATIONS:** Renovation (Rotating out of CRP), Site Preparation, Post-emergence Weed Control in Dormant CRP Grasses, Wiper Applications Over-the-Top.

**RESTRICTIONS:** Some stunting of CRP perennial grasses will occur if broadcast applications are made when plants are not dormant. No waiting period is required between application and grazing or harvesting for feed. Do not apply more than 3 quarts per acre per year onto CRP grasses.

### **Renovation (Rotating out of CRP), Site Preparation**

**USE DIRECTIONS:** This product may be used to prepare CRP land for crop production. Refer to Federal, state or local use guides for CRP renovation directions. For any crop not listed for treatment in this label, applications must be made at least 30 days prior to planting.

MAKE APPLICATIONS ACCORDING TO THE RATES LISTED IN "ANNUAL WEEDS", "PERENNIAL WEEDS", AND "WOODY BRUSH & TREES RATES TABLES" IN THIS LABEL.

**PRECAUTION:** Some stunting of CRP perennial grasses will occur if broadcast applications are made when plants are not dormant.

### **Post-emergence Weed Control in Dormant CRP Grasses, Wiper Applications Over-the-Top**

USE DIRECTIONS: This product may be used to suppress competitive growth and seed production of undesirable vegetation in CRP acres. Such applications may be made with wiper application equipment or as a broadcast or spot treatment to dormant CRP grasses. For selective applications with broadcast spray equipment, apply 12 to 16 fluid ounces of the product per acre in early spring before desirable CRP grasses, such as crested and tall wheatgrass, break dormancy and initiate green growth. Late fall applications can be made after desirable perennial grasses have reached dormancy.

#### **Grass or Turfgrass Seed Production**

LABELED CROPS: Any grass (Gramineae family) except Corn, Sorghum, Sugarcane and those listed in this label under "Cereal Crops."

TYPES OF APPLICATIONS: Pre-plant, Pre-emergence, At-Planting, Renovation, Site Preparation, Shielded Sprayers, Wiper Applications Over-the-Top, Spot Treatments, Creating Rows in Annual Ryegrass.

#### **Pre-plant, Pre-emergence, At-Planting, Renovation, Site Preparation**

USE DIRECTIONS: This product may be applied before, during, or after planting or for renovation of turf or forage grass areas grown for seed production. Applications must be made prior to the emergence of the crop to avoid injury. For maximum control of existing vegetation, delay planting to determine if any regrowth from escaped underground plant parts occurs. Where repeat treatments are necessary, sufficient regrowth must be attained prior to application. For warm-season grasses, such as bermudagrass, summer or fall applications provide best control. MAKE APPLICATIONS ACCORDING TO THE RATES LISTED IN "ANNUAL WEEDS", "PERENNIAL WEEDS", AND "WOODY BRUSH & TREES RATES TABLES" IN THIS LABEL.

RESTRICTIONS: Do not disturb soil or underground plant parts before treatment. Delay tillage or renovation techniques such as vertical mowing, coring or slicing for 7 days after application to allow proper translocation into underground plant parts. If application rates total 3 quarts per acre or less, no waiting period between treatment and feeding or livestock grazing is required. If the rate is greater than 3 quarts per acre, remove domestic livestock before application and wait 8 weeks before grazing or harvesting.

#### **Shielded Sprayers**

USE DIRECTIONS: Apply 1 to 3 quarts of this product in 10 to 20 gallons of water per acre to control weeds between grass seed rows. Uniform planting in straight rows aids in shield sprayer applications. Best results are obtained when the grass seed crop is small enough to easily pass by the protective shields.

PRECAUTIONS: Contact of this product in any manner to any vegetation to which treatment is not intended may cause damage. Grower assumes all responsibility for crop losses from misapplication.

#### **Wiper Applications Over-the-Top**

USE DIRECTIONS: This product may be applied with wiper applicators to control or suppress the weeds listed under "WIPER APPLICATORS" in the "SELECTIVE EQUIPMENT" section of this label.

PRECAUTIONS: Weeds should be a minimum of 6 inches above the desirable vegetation. Better results may be obtained when more of the weed is exposed to the herbicide solution. Weeds not contacted by the herbicide solution will not be affected. This may occur in dense clumps, severe infestations, or when height of weeds varies so that not all weeds are contacted. In these instances, repeat treatments may be necessary. Better results may be obtained if 2 applications are made in opposite directions.

RESTRICTIONS: Contact of the herbicide solution with desirable vegetation may result in damage or destruction. Adjust applicators so that the wiper contact point is at least 2 inches above the desirable vegetation.

### **Spot Treatments**

USE DIRECTIONS: Use a 1 to 1.5 percent solution. Apply this product prior to heading of grasses.

RESTRICTIONS: The crop receiving the spray in the treated area will be killed. Take care to avoid drift or spray outside the target area for the same reason.

### **Creating Rows in Annual Ryegrass**

USE DIRECTIONS: Use 1 to 2 pints of this product per acre. Use the higher rate within the specified rate range when the ryegrass is greater than 6 inches tall. Best results are obtained when applications are made before the ryegrass reaches 6 inches in height.

PRECAUTIONS, Set nozzle heights to allow the establishment of the desired row spacing while preventing spray droplets, spray fines, or drift to contact the ryegrass not treated. Use low pressure nozzles, or drop nozzles designed to target the application over a narrow band.

Grower assumes all responsibility for crop losses from misapplication.

### **Pastures**

LABELLED CROPS: Any grass (Gramineae family) except Corn, Sorghum, Sugarcane and those listed in this label under "Cereal Crops." Grasses that may be treated include Bahiagrass, Bermudagrass, Bluegrass, Brome, Fescue, Guineagrass, Kikuyugrass, Orchardgrass, Pangola grass, Ryegrass, Timothy, Wheatgrass.

TYPES OF APPLICATIONS: Pre-plant, Pre-emergence, Spot Treatment, Wiper Applications, Over-the-Top, Pasture Renovation, Stand Removal, Chemical Mowing, Post-emergent Weed Control (Broadcast Treatments).

### **Spot Treatment, Wiper Applications Over-the-Top**

USE DIRECTIONS: This product may be applied as a spot treatment or with wiper applicators in pastures. Applications may be made in the same area at 30-day intervals.

PRECAUTIONS: For spot treatments or wiper application methods using rates of 3 quarts per acre or less, the entire field or any portion of it may be treated.

RESTRICTIONS: When spot treatments or wiper applications are made using rates above 3 quarts per acre, no more than 10 percent of the total pasture may be treated at any one time. Remove domestic livestock before application and wait 7 days after application before grazing livestock or harvesting.

### **Pre-plant, Pre-emergence, Pasture Renovation, Stand Removal**

USE DIRECTIONS: This product may be applied prior to planting or emergence of forage grasses. In addition, this product may be used to control perennial pasture species listed on this label prior to replanting. MAKE APPLICATIONS ACCORDING TO THE RATES LISTED IN "ANNUAL WEEDS" AND "WOODY BRUSH & TREES RATES TABLES" IN THIS LABEL

RESTRICTIONS: If application rates total 3 quarts per acre or less, no waiting period between treatment and feeding or livestock grazing is required. If the rate is greater than 3 quarts per acre, remove domestic livestock before application and wait 8 weeks after application before grazing or harvesting.

### **Chemical Mowing (Bermudagrass Pastures Prior to Spring Growth or Immediately After First Cutting)**

USE DIRECTIONS: This product may be applied at 16 fluid ounces per acre to control the weeds listed below and most other winter annual grass and broadleaf weeds in established coastal bermudagrass pastures.

Annual bluegrass, Cheat, Crabgrass, Henbit, Johsongrass seedling, Little barley, Oats, Ryegrass, Sandbur field, Wheat, Wild mustard

Applications prior to spring growth: Apply this product in the late winter or early spring but before new coastal bermudagrass growth begins in the spring. Applications to new growth can damage the bermudagrass.

Applications following the first cutting: Apply this product after the first bermudagrass cutting when the bermudagrass has not yet begun to regrow. Applications made after regrowth has begun can damage the bermudagrass.

**RESTRICTIONS:** Application rates totaling 3 quarts per acre or less do not require a waiting period between treatment and feeding or livestock grazing. If the rate is greater than 3 quarts per acre, remove domestic livestock and wait 8 weeks following application before grazing or harvesting. **NOTE: ONLY ONE APPLICATION PER YEAR MAY BE MADE TO ANY ONE FIELD. A SPRING APPLICATION PRIOR TO GROWTH AND AN APPLICATION FOLLOWING THE FIRST CUTTING MAY NOT BE MADE ON THE FIELD DURING THE SAME YEAR.**

**Colorado, Idaho, Iowa, Kansas, Montana, Nebraska, North Dakota, Oregon, South Dakota, Utah, Washington and Wyoming Only:**

**Bromus Species:** This product may be used to treat downy brome (*Bromus tectorum*), Japanese brome (*Bromus japonicas*), soft chess (*Bromus mollis*) and cheatgrass (*Bromus secalinus*) found in industrial, rangeland and pasture sites. Apply 8 to 16 fluid ounces of product per acre on a broadcast basis. For best results, treatment should coincide with early seedhead emergence of the most mature plants. Delaying the application until this growth stage will maximize the emergence of other weedy grass flushes. Make applications to the same site each year until seed banks are depleted and the desirable perennial grasses are able to become reestablished on the site.

**Medusahead:** To treat medusahead, apply 16 fluid ounces of this product per acre as soon as plants are actively growing, and prior to the 4 leaf stage. Applications may be made in the fall or spring.

**Application Equipment and Techniques:** Applications may be made using ground or aerial equipment. Aerial applications for these uses may be made using fixed wing or helicopter equipment. For aerial applications, apply in 2 to 10 gallons of water. When applied as directed there are no grazing restrictions.

### **Rangelands**

**LABELED CROPS:** Rangeland (perennial cool and warm season grass rangelands)

**TYPES OF APPLICATIONS:** Post-emergence

**USE DIRECTIONS:** This product will control or suppress many annual weeds growing in perennial cool and warm-season grass rangelands.

Preventing viable seed production is key to the successful control and invasion of annual grassy rangelands. Follow-up applications in sequential years should eliminate most of the viable seeds.

Delay grazing of treated areas to encourage growth of desirable perennials. Allowing desirable perennials to flower and reseed in the treated area will encourage successful transition.

Apply 12 to 16 fluid ounces of this product per acre to control or suppress many annual weeds growing in perennial cool and warm-season grass rangelands including downy brome, cheatgrass, cereal rye and jointed goatgrass in rangelands. Apply when most mature brome plants are in early flower and before the plants, including seedheads, turn color. Allowing for secondary weed flushes to occur in the spring following rain events further depletes the seed reserve and encourages perennial grass conversion on weedy sites. Fall applications are possible where spring moisture is usually limited and fall germination allows for good weed growth.

For medusahead, apply 16 fluid ounces of this product per acre at the 3 leaf stage. Delaying applications beyond this stage will result in reduced or unacceptable control. Controlled burning may be useful in eliminating the thatch layer produced by slow decaying culms prior to application. Allow new growth to occur before spraying after a burn.

**PRECAUTIONS:** Slight discoloration of the desirable grasses may occur, but they will re-green and re-grow under moist soil conditions as effects of this product wear off.

**RESTRICTIONS:** Do not use ammonium sulfate when spraying rangeland grasses with this product. Do not apply more than 3 quarts per acre per year.

### **Turfgrass Sod Production**

#### **Preplant, Preemergence, Site Preparation, and Spot Treatment**

**USE DIRECTIONS:** This product controls most existing vegetation prior to renovating turfgrass areas or establishing turfgrass grown for seed or sod. Broadcast or hand-held equipment may be used to control sod remnants or other unwanted vegetation after sod is harvested. For maximum control of existing vegetation, delay planting or sodding to determine if any re-growth from escaped underground plant parts occurs. Where repeat treatments are necessary, sufficient re-growth must be attained prior to application. For warm-season grasses such as Bermuda grass, summer or fall applications provide the best control. Where existing vegetation is growing under mowed turfgrass management, apply this product after omitting at least one regular mowing to allow sufficient growth for good interception of the spray.

**MAKE APPLICATIONS ACCORDING TO RATES LISTED IN "ANNUAL WEEDS", "PERENNIAL WEEDS", and "WOODY BRUSH & TREE RATES" IN THIS LABEL.**

Desirable turf grasses may be planted following the above procedures.

Hand-held equipment may be used for spot treatment of unwanted vegetation growing in existing turfgrass.

**RESTRICTIONS:** Do not disturb soil or underground plant parts before treatment. Delay tillage or renovation techniques such as vertical mowing, coring or slicing for 7 days after application to allow translocation into underground plant parts. If application rates total 3 quarts per acre or less, no waiting period between treatment and feeding or livestock grazing is required. If the rate is greater than 3 quarts per acre, remove domestic livestock and wait 8 weeks following application before grazing or harvesting. Do not disturb soil or underground plant parts before treatment.

#### **Renovation**

**USE DIRECTIONS:** Refer to "Preplant, Preemergence, Site Preparation, and Spot Treatment" section above.

**RESTRICTIONS:** Do not feed or graze turfgrass grown for seed or sod production for 8 weeks following application. Do not disturb soil or underground plant parts before treatment. Delay tillage or renovation techniques such as vertical mowing, coring or slicing for 7 days after application to allow translocation into underground plant parts.

### **Release of Bermudagrass or Bahiagrass**

#### **Dormant applications**

This product may be used to control or partially control many winter annual weeds and tall fescue for effective release of dormant Bermuda grass or bahiagrass. Treat only when turf is dormant and prior to spring green up. This product may also be tank-mixed with OUST for residual control. Tank mixtures of this product with OUST may delay green up.

For best results on winter annuals, treat when plants are in an early growth stage (below 6 inches in height) after most have germinated. For best results on tall fescue, treat when fescue is at or beyond the 4 to 6-leaf stage.

Apply 8 to 64 ounces of this product per acre alone or in a tank mixture with 1/4 to 1 ounce per acre of OUST. Apply the specified rates in 10 to 40 gallons of water per acre. Use only in areas where Bermudagrass or bahiagrass are desirable ground covers and where some temporary injury or discoloration can be tolerated. To avoid delays in green-up and minimize injury, add no more than 1 ounce of OUST per acre on Bermuda grass and no more than 0.5 ounce per acre on bahiagrass and avoid treatments when these grasses are in a semi-dormant condition.



**Actively growing Bermuda grass**

This product may be used to control or partially control many annual and perennial weeds for effective release of actively growing Bermuda grass. Apply 1 to 3 pints of this product in 10 to 40 gallons of spray solution per acre. Use the lower rate when treating annual weeds below 6 inches in height (or runner length). Use the higher rate as weeds increase in size or as they approach flower or seed head formation. These rates will also provide partial control of the following perennial species:

Bahiagrass	Johnsongrass
Bluestem, silver	Trumpetcreeper
Fescue, tall	Vaseygrass

This product may be tank-mixed with OUST. If tank-mixed, use no more than 1 to 2 pints of this product with 1 to 2 ounces of OUST per acre. Use the lower rates of each product to control annual weeds less than 6 inches in height (or runner length) that are listed in this label and the OUST label. Use the higher rates as annual weeds increase in size and approach the flower or seed head stages. These rates will also provide partial control of the following perennial weeds:

Bahiagrass	Fescue, tall
Bluestem, silver	Johnsongrass
Broomsedge	Poorjoe
Dallisgrass	Trumpetcreeper
Dock, curly	Vaseygrass
Dogfennel	Vervain, blue

Use only on well-established Bermuda grass. Bermuda grass injury may result from the treatment, but re-growth will occur under moist conditions. Do not make repeat applications of the tank mix in the same season since severe injury may occur.

**Actively growing Bahiagrass**

For suppression of vegetative growth and seed head inhibition of bahiagrass for approximately 45 days, apply 6 fluid ounces of this product in 10 to 40 gallons of water per acre. Apply 1 to 2 weeks after full green-up or after mowing to a uniform height of 3 to 4 inches. The application must be made prior to seed head emergence.

For suppression up to 120 days, apply 4 fluid ounces of this product per acre, followed by an application of 2 to 4 fluid ounces per acre about 45 days later. Make no more than 2 applications per year.

A tank mixture of this product plus OUST may be used. Apply 6 fluid ounces of this product plus 0.25 ounce of OUST per acre 1 to 2 weeks following an initial spring mowing. Make only one application per year.

**ROUNDUP READY® CROPS**

The following directions or those published separately on supplemental labeling for this product include all applications of this product that can be made onto the specified Roundup Ready crops during the complete cropping season. DO NOT combine these treatment directions with those for crops in the "ANNUAL AND PERENNIAL CROPS (ALPHABETICAL)" section of this label that do not contain the Roundup Ready gene, unless otherwise directed in this product's labeling.

**THIS PRODUCT IS TO BE USED FOR POSTEMERGENCE APPLICATION ONLY ON CROPS DESIGNATED AS CONTAINING THE ROUNDUP READY GENE OR GLYPHOSATE TOLERANT GENE.**

Applying this product to crops that are not designated as glyphosate tolerant will result in severe crop injury and yield loss. Avoid contact with foliage, green stems, or fruit of crops, or any desirable plants that do not contain the Roundup Ready gene or glyphosate tolerant gene, since severe plant injury or destruction will result.

The Roundup Ready designation indicates that the crop contains a patented gene that provides tolerance to this product. Information on Roundup Ready crops may be obtained from your seed supplier. Roundup Ready crops must be purchased from an authorized licensed seed supplier.

NOTE: Roundup Ready seed, and the method of selectively controlling weeds using glyphosate on a Roundup Ready crop, are protected under several U.S. Patents. A license to use Roundup Ready seed must be obtained prior to use.

**For Ground Applications:** Apply this product in 5 to 20 gallons of spray solution per acre. Carefully select proper nozzle and spray pressure to avoid spraying a fine mist. For best results with ground application equipment, use flat spray nozzles. Check for even distribution of spray droplets.

**For Aerial Applications:** Apply this product in 3 to 15 gallons of water per acre. See the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for procedures to avoid spray drift that may cause injury to any vegetation not intended for treatment. Use of appropriate buffer zones will help prevent injury to adjacent vegetation.

ATTENTION: AVOID DRIFT. EXTREME CARE MUST BE USED WHEN APPLYING THIS PRODUCT TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS WHICH DO NOT CONTAIN THE GLYPHOSATE TOLERANT GENE.

See the "MIXING" and "APPLICATION EQUIPMENT AND TECHNIQUES" sections of this label for additional restrictions on the application of this product.

Tank mixtures with other herbicides, insecticides, fungicides, micronutrients or foliar fertilizers may result in reduced weed control or crop injury and are NOT specified for over-the-top applications of this product unless otherwise noted in this label, supplemental labeling or fact sheets published separately by CropSmart, LLC.

Ammonium sulfate may be mixed with this product for applications to Roundup Ready crops. Refer to the "MIXING" section for directions on the use of ammonium sulfate.

Sprayer Preparation: It is important that sprayer and mixing equipment be clean and free of pesticide residue before making applications of this product. Follow the cleaning procedures specified on the label of the product(s) previously used. THOROUGHLY CLEAN THE SPRAY TANK AND ALL LINES AND FILTERS TO ELIMINATE POTENTIAL CONTAMINATION FROM OTHER HERBICIDES PRIOR TO MIXING AND APPLYING THIS PRODUCT.

NOTE: The following directions are based on a clean start at planting by using a burndown application or tillage to control existing weeds before crop emergence. In no-till and stale seedbed systems, a preplant burn-down treatment of this product is specified to control existing weeds prior to crop emergence. Some weeds, such as black nightshade, broadleaf signalgrass, sicklepod, Texas panicum, sandbur, annual morningglory, woolly cupgrass, shattercane, wild proso millet, burcumber, and giant ragweed with multiple germination times, or suppressed (stunted) weeds may require a second application of this product for complete control. Make the second application after some regrowth has occurred and at least 10 days after a previous application of this product.

### **ROUNDUP READY ALFALFA**

#### **FOR POSTEMERGENCE APPLICATION ONLY ON ALFALFA VARIETIES DESIGNATED AS CONTAINING A ROUNDUP READY GENE**

The Roundup Ready designation indicates that the alfalfa contains a patented gene, which provides tolerance to this product. Information on Roundup Ready alfalfa varieties may be obtained from your seed supplier or CropSmart, LLC representative. Roundup Ready crop varieties must be purchased from an authorized licensed seed supplier.

#### **Preplant, At-Planting, Preemergence and Postemergence**

USE DIRECTIONS: This product will control many troublesome emerged weeds with over-the-top applications in Roundup Ready alfalfa.

For ground applications with broadcast equipment, apply this product in 3 to 40 gallons of spray solution per acre. Carefully select proper nozzle and spray pressure to avoid spraying a fine mist. For best results with ground application equipment, use flat fan nozzles. Check for even distribution of spray droplets.

For aerial application: Use the specified rates of this product in 3 to 15 gallons of spray solution per acre.

### **New Stand Establishment (seeding year)**

#### **Prior to First Cutting During New Stand Establishment:**

From emergence up to 4 trifoliolate leaves	2.0 quarts per acre
From 5 trifoliolate leaves up to 5 days before first cutting	2.0 quarts per acre

#### **After First Cutting in Newly Established Stands:**

In-crop application, per cutting, up to 5 days before cutting	2.0 quarts per acre
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#### **Established Stands (non-seeding year)**

In-crop applications, per cutting, up to 5 days before cutting	2.0 quarts per acre
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During stand establishment, due to the biology and breeding constraints of alfalfa, up to 10% of the seedlings may not contain the Roundup Ready gene and will not survive after the first application of this product. To eliminate the undesirable effects of stand gaps created by the loss of plants not containing a Roundup Ready gene, apply a single application of at least 1 quart per acre of this product at or before the 3 to 4 trifoliolate growth stage.

In both newly seeded and established stands, in order to maximize yield and quality potential of forage and hay, make applications of this product after weeds have emerged but before alfalfa growth or regrowth interferes with application spray coverage of the target weeds.

In addition to those weeds listed on this label, this product will suppress or control the parasitic weed, Dodder (*Cuscuta* spp.) in Roundup Ready alfalfa. Repeat applications may be necessary for complete control.

**RESTRICTIONS: DO NOT EXCEED 2 QUARTS OF THIS PRODUCT PER ACRE WHEN MAKING APPLICATIONS BY AIR.**

Any single over-the-top application of this product must not exceed 2 quarts (64 fluid ounces) per acre. Sequential applications of this product may be made a minimum of 7 days apart. The combined total per year for all in-crop applications in newly established and established stands must not exceed 6 quarts (192 fluid ounces) per acre.

Remove domestic livestock before application and wait a minimum of 5 days after last application before grazing, or cutting and feeding of Roundup Ready alfalfa forage and hay.

### **Over-the-top applications**

**USE DIRECTIONS:** This product may be applied post-emergence to Roundup Ready alfalfa from emergence until 5 days prior to cutting. Any single over-the-top application of this product must not exceed 2 quarts per acre.

**RESTRICTIONS:** Sequential applications of this product must be at least 7 days apart.

**ATTENTION:** Where Roundup Ready alfalfa is grown with a companion or cover crop, or is overseeded with a second species, over-the-top applications of this product will eliminate the non-Roundup Ready species. Do not tank mix with other herbicides, insecticides, or fungicides for over-the-top applications of this product as this may result in crop injury or reduced weed control.

<b>MAXIMUM ALLOWABLE APPLICATION RATES</b>	
Combined total per year for all applications,	7.75 quarts per acre

including preplant during year of establishment	
Combined total per year for in-crop applications for newly established and established stands	6 quarts per acre
Preplant, At-planting and Preemergence single applications	2 quarts per acre

### **ROUNDUP READY CANOLA (Spring Varieties)**

**LABELED CROPS:** Roundup Ready spring canola is defined as those Roundup Ready canola varieties that are seeded in the spring and harvested in the fall and do not enter a winter dormancy period.

**DO NOT USE THIS PRODUCT ON SPRING CANOLA WITH A ROUNDUP READY GENE PLANTED IN THE FOLLOWING STATES:** ALABAMA, DELAWARE, FLORIDA, GEORGIA, KENTUCKY, MARYLAND, NEW JERSEY, NORTH CAROLINA, SOUTH CAROLINA, TENNESSEE, VIRGINIA AND WEST VIRGINIA, EXCEPT FOR USES IN WILDLIFE FOOD PLOTS THAT WILL NOT BE USED FOR HUMAN OR LIVESTOCK FOOD.

#### **Preplant, At-Planting, Preemergence**

**USE DIRECTIONS:** This product may be applied before, during or after planting, up to a maximum of 2 quarts per acre.

**RESTRICTIONS:** Maximum quantity of this product that may be applied for all preplant, at-planting and preemergence applications combined is 2 quarts per season.

#### **Postemergence (In-crop)**

**USE DIRECTIONS:** This product may be applied postemergence to Roundup Ready spring canola from emergence through the 6-leaf stage of development. Applications made during bolting or flowering may result in crop injury and yield loss. To maximize yield potential, make applications early to eliminate competing weeds.

**Single Application** - Apply 11 to 16 fluid ounces of this product per acre no later than the 6-leaf stage for the control of annual weeds. Avoid overlapping applications that may result in temporary yellowing, delayed flowering, and or growth reduction. Similar crop injury may result when applications of more than 11 fluid ounces per acre are applied after the 4-leaf stage.

**Sequential Application** - Apply 11 fluid ounces per acre to 1 - to 3-leaf canola followed by a sequential application at a minimum interval of 10 days, but no later than the 6-leaf stage. Sequential applications are specified for early emerging annual weeds and perennial weeds such as Canada thistle and quackgrass, or when multiple application times are needed for adequate weed control.

**RESTRICTIONS:** No more than two in-crop broadcast applications may be made from crop emergence through the 6-leaf stage of development and the total in-crop application must not exceed 22 fluid ounces per acre. Allow a minimum of 60 days between last application and canola harvest.

<b>MAXIMUM ALLOWABLE APPLICATION RATES</b>	
Total of all preplant, at-planting, preemergence applications	2 quarts per acre
Total of all in-crop applications from emergence to 6-leaf stage	1 quart per acre

### **ROUNDUP READY CANOLA (Fall & Winter Varieties)**

**LABELED CROPS:** Roundup Ready winter canola is defined as those Roundup Ready canola varieties that are seeded in early fall and harvested the following spring or summer. Winter canola varieties are intended to enter a cold period dormancy in the winter.

#### **Preplant, At-Planting, Preemergence**

**USE DIRECTIONS:** This product may be applied before, during or after planting Roundup Ready winter canola.

**RESTRICTIONS:** Maximum quantity of this product that may be applied for all preplant, at-planting and preemergence applications combined is 2 quarts per acre per season.

### **Postemergence (In-crop)**

**USE DIRECTIONS:** This product may be applied to Roundup Ready winter canola varieties from emergence to canopy closure in the fall and prior to bolting in the spring. Applications made during or after bolting may result in crop injury and yield loss. To maximize yield potential, make applications early to eliminate competing weeds.

Some weeds with multiple germination times, or suppressed (stunted) weeds, or weeds that have overwintered may require sequential applications of this product for control. The second application may be made after some regrowth has occurred and at least 60 days after a previous application of this product.

**Single Application** - Apply 22 to 32 fluid ounces of this product per acre in the fall. Make applications in the fall when weeds are small and actively growing. Use the higher rate in the specified range when weed densities are high, when weeds have overwintered or when weeds become large and well established. Applications of greater than 16 fluid ounces per acre prior to the 6-leaf stage may result in reduced crop growth in the fall. Avoid spray overlaps. Spray overlaps may result in temporary yellowing and/or growth reduction.

**Sequential Application** - Apply 16 to 32 fluid ounces of this product per acre to 2-leaf or larger canola in the fall, followed by a sequential application at the same rate and at a minimum interval of 60 days, but before bolting in the spring. Sequential applications are specified for early emerging annual weeds and winter emerging weeds such as downy brome, jointed goatgrass and ryegrass, and for weeds that have overwintered. This product will control or suppress most perennial weeds. For some perennial weeds, sequential applications may be required to reduce competition with the crop.

**RESTRICTIONS:** No more than two over-the-top broadcast applications may be made from crop emergence up to the onset of bolting, and the total in-crop application must not exceed 2 quarts of this product per acre. Applications of greater than 24 fluid ounces per acre prior to the 6-leaf stage may result in reduced crop growth in the fall. Allow a minimum of 60 days between last application and harvest of canola grain. No waiting period is required between application and open grazing of livestock.

<b>MAXIMUM ALLOWABLE APPLICATION RATES</b>	
Total of all preplant, at-planting, preemergence applications	2 quarts per acre
Total of all in-crop applications from emergence to canopy closure or prior to bolting in the spring.	2 quarts per acre

## **ROUNDUP READY CORN**

### **Preplant, At-Planting, Preemergence**

**USE DIRECTIONS:** This product may be applied alone or in a tank mixture before, during or after planting corn.

**Tank Mixtures:** This product may be tank mixed with Bullet, Degree, Degree Xtra, Harness, Harness Xtra, Harness Xtra 5.6L, Lariat, Lasso or Micro-Tech at 50 to 100 percent of labeled rate. Refer to the specific product label and observe all precautions and limitations on the label for any preemergence herbicide application, including application timing restrictions, soil restrictions, minimum recropping interval and rotational guidelines – the more restrictive requirements apply.

**Note:** For maximum weed control, make a post-emergence (in-crop) application of this product following the use of less than labeled rates of the preemergence residual products listed above.

MAKE APPLICATIONS ACCORDING TO RATES LISTED IN “ANNUAL WEEDS”, “PERENNIAL WEEDS” AND “WOODY BRUSH & TREE RATE TABLES” IN THIS LABEL.

RESTRICTIONS: Refer to the “ROUNDUP READY CROPS” section of this label for precautionary directions for use in Roundup Ready crops.

### Post-emergence (in-crop)

USE DIRECTIONS: This product may be applied post-emergence to Roundup Ready corn from emergence through the V8 state (8 leaves with collars) or until corn height reaches 30 inches, whichever comes first.

When applied as directed, this product controls labeled annual grass and broadleaf weeds in Roundup Ready corn. Many perennial grasses and broadleaf weeds will be controlled or suppressed with one or more application of this product. Make the post-emergent application of 24 to 32 fluid ounces per acre of this product before the weeds reach a height and/or density that the weeds become competitive with the crop, generally 4 inch tall weeds or less.

This product may be applied alone as a post-emergence in-crop application to provide control of emerged weeds listed on this label. If new flushes of weeds occur, a sequential application of this product at 24 to 32 fluid ounces per acre will control the labeled grasses and broadleaf weeds.

Tank Mixtures: This product may be tank mixed with Bullet, Degree, Degree Xtra, Harness, Harness Xtra, Harness Xtra 5.6L, or Micro-Tech at 50 to 100 percent of labeled rate. This product may be applied in tank mixture with Permit and Atrazine at labeled rates. Refer to the specific product label and observe all precautions and limitations on the label for all products used in tank mixtures, including application timing restrictions, soil restrictions, minimum recropping interval and rotational guidelines – the more restrictive requirements apply.

Tank-Mix Partner	Maximum Height of Corn for Application
Degree Degree Xtra Harness Harness Xtra Harness Xtra 5.6L	11 inches
Bullet* Micro-Tech*	5 inches
Atrazine	12 inches

\*Bullet and Micro-Tech are not registered for use as a post-emergence application in Texas.

RESTRICTIONS: See the “ROUNDUP READY CROPS” section of this label for general precautionary directions for use in Roundup Ready crops. Single in-crop applications of this product are not to exceed 1 quart per acre. Sequential in-crop applications of this product from emergence through the V8 stage or 30 inches must not exceed 2 quarts per acre per growing season. Allow a minimum of 10 days between in-crop applications of this product. Allow a minimum of 50 days between application of this product and harvest of corn forage.

### Post-emergence with Drop Nozzles

USE DIRECTIONS: For Roundup Ready corn from emergence through the V8 stage (8 leaves with collars) or until corn height reaches 30 inches, whichever comes first, this product may be applied over-the-top broadcast or with drop nozzles. For optimum spray coverage and weed control when corn height is 24 to 30 inches (free standing), use drop nozzles. For corn heights 30 to 48 inches (free standing), apply this product only using ground application equipment with drop nozzles adjusted to avoid spraying into the whorls of the corn plants.

RESTRICTIONS: Single in-crop applications of this product must not exceed 32 fluid ounces per acre. The maximum combined total of multiple in-crop applications from emergence through the 48-inch stage is 64 fluid ounces per acre. If product is applied to whorls of corn, plant injury and yield reduction can occur.

**Preharvest**

USE DIRECTIONS: In Roundup Ready corn, up to 1 quart per acre of this product can be applied preharvest. Make applications at 35 percent grain moisture or less. Ensure that maximum kernel fill is complete and the corn is physiologically mature (black layer formed)

RESTRICTIONS: Allow a minimum of 7 days between application and harvest.

**Post-Harvest**

USE DIRECTIONS: This product may be applied after harvest of corn. Higher rates may be required for control of large weeds that were growing in the crop at the time of harvest. Tank mixtures with 2,4-D or dicamba may be used.

RESTRICTIONS: Allow a minimum of 7 days between treatment and harvest or feeding of treated vegetation.

<b>MAXIMUM ALLOWABLE APPLICATION RATES</b>	
Combined total per year for all applications	8 quarts per acre
Preplant, Preemergence, At-Planting applications	5 quarts per acre
Total in-crop applications from emergence through the V8 stage or 30 inches	2 quarts per acre
Maximum preharvest application rate after maximum kernel fill is complete and the crop is physiologically mature (black layer formation) until 7 days before harvest.	1 quart per acre

**ROUNDUP READY CORN 2 HYBRIDS**

The use of the higher in-crop over the top rates on other than Roundup Ready Corn 2 may cause crop injury and reduce yields.

The addition of 1 to 2 percent dry ammonium sulfate by weight or 8.5 to 17 pounds per 100 gallons of water may increase the performance of this product under hard water conditions, drought conditions or when tank mixed with Bullet or Micro-Tech herbicides. Ensure that ammonium sulfate is completely dissolved in the spray tank before adding herbicides. Thoroughly rinse the spray system with clean water after use to reduce corrosion. Do not add other additives, including fertilizers and micro-nutrients with this product since this may result in increased potential for crop injury.

Do not combine these directions with those in the "Corn with the Roundup Ready Gene" section, or with any other Roundup Ready corn directions for this or another glyphosate containing product.

Do not exceed 1.0 quart per acre for aerial applications.

**Preplant, At-Planting, Preemergence**

USE DIRECTIONS: This product may be applied alone or in a tank mixture before, during or after planting corn. For application rates, see the "ANNUAL WEEDS RATE TABLE", "PERENNIAL WEEDS RATE TABLE" and "WOODY BRUSH AND TREES RATE TABLE" of this label.

Tank Mixtures: This product may be tank mixed with Bullet, Degree, Degree Xtra, Harness, Harness Xtra, Harness Xtra 5.6L, Lariat, Lasso or Micro-Tech at 50 to 100 percent of labeled rate. Refer to the specific product label and observe all precautions and limitations on the label for any preemergence herbicide application, including application timing restrictions, soil restrictions, minimum recropping interval and rotational guidelines – the most restrictive requirements apply.

Note: For maximum weed control, make a post-emergence (in-crop) application of this product following the use of less than labeled rates of the preemergence residual products listed above.

RESTRICTIONS: Refer to the "ROUNDUP READY CROPS" section of this label for directions for use in Roundup Ready crops.

**Post-emergence (in-crop)**

**USE DIRECTIONS:** Apply this product alone as a post-emergence in-crop application to provide control of emerged weeds listed on this label. Make the post-emergence application of this product before the weeds reach a height and/or density that the weeds become competitive with the crop. If new flushes of weeds occur, a sequential application of this product at 24 to 32 fluid ounces per acre will control the labeled grasses and broadleaf weeds. This product may be applied over-the-top broadcast or with drop nozzles post-emergence to Roundup Ready Corn 2 from emergence through the V8 state or until corn height reaches 30 inches (free standing), whichever comes first. For corn height 30 to 48 inches (free standing), apply this product only using ground application equipment with drop nozzles and avoid spraying into the whorls of the corn plants. For optimum spray coverage and weed control when the corn height is 24 to 48 inches (free standing), use drop nozzles.

**Tank Mixtures:** This product may be applied in a tank mixture with a labeled rate of Degree, Degree Xtra, Harness, Harness Xtra, Harness Xtra 5.6L, Micro-Tech, and Bullet herbicides at 50 to 100 percent of labeled rate. This product may be applied in a tank mixture with Permit and Atrazine at labeled rates. Refer to the specific product label and observe all precautions and limitations on the label for all products used in tank mixtures, including application timing restrictions, soil restrictions, minimum recropping interval and rotational guidelines – the more restrictive requirements apply. Tank mixtures with other products may result in increased potential for crop injury and/or weed antagonism. Refer to the table below for height limitation for tank mix partners.

<b>Tank-Mix Partner</b>	<b>Maximum Height of Corn for Application</b>
Degree Degree Xtra Harness Harness Xtra Harness Xtra 5.6L	11 inches
Bullet* Micro-Tech*	5 inches
Permit	30 inches
Atrazine	12 inches

\*Bullet and Micro-Tech are not registered for use as a post-emergence application in Texas.

**RESTRICTIONS:** See the “ROUNDUP READY CROPS” section of this label for precautionary directions for use in Roundup Ready crops. Single in-crop applications of this product are not to exceed 48 fluid ounces per acre. Allow a minimum of 10 days between in-crop applications of this product. Allow a minimum of 50 days between application of this product and harvest of corn forage or grain. For applications at a preharvest timing (See preharvest section), allow a minimum of 7 days between application and harvest or feeding of corn stover or corn grain. There are no rotational crop restrictions following applications of this product.

#### **Preharvest (Harvest Aid Use for Field Corn Grain and Stover Only)**

**USE DIRECTIONS:** A single preharvest application of up to 32 fluid ounces per acre of this product may be made if no more than a total of 64 fluid ounces of this product has been previously applied in over-the-top or drop nozzle applications. Make a preharvest application at 35 percent grain moisture or less. Ensure that maximum kernel fill is complete and the corn is physiologically mature (black layer formed).

**RESTRICTIONS:** Do not make a preharvest application of this product if more than a combined total of 64 fluid ounces of this product has been previously applied in over-the-top or drop nozzle applications. Allow a minimum of 7 days between a preharvest application and harvest or feeding of corn stover or grain.

#### **Post-Harvest**

**USE DIRECTIONS:** This product may be applied after harvest of corn. Higher rates may be required for control of large weeds that were growing in the crop at the time of harvest. Tank mixtures with 2,4-D or dicamba may be used.

**RESTRICTIONS:** Allow a minimum of 7 days between treatment and harvest or feeding of treated vegetation.



<b>MAXIMUM ALLOWABLE APPLICATION RATES</b>	
Preplant, Preemergence, At-Planting applications	5 quarts per acre
Total in-crop applications from emergence through the 48 inch stage	3 quarts per acre
Maximum preharvest application rate after maximum kernel fill is complete and the crop is physiologically mature (black layer formation) until 7 days before harvest.	1 quart per acre
Combined total per year for all applications	8 quarts per acre

### **ROUNDUP READY COTTON**

ATTENTION: USE OF THIS PRODUCT IN ACCORDANCE WITH LABEL DIRECTIONS IS EXPECTED TO RESULT IN NORMAL GROWTH OF ROUNDUP READY COTTON. HOWEVER, VARIOUS ENVIRONMENTAL CONDITIONS, AGRONOMIC PRACTICES AND OTHER FACTORS MAKE IT IMPOSSIBLE TO ELIMINATE ALL RISKS ASSOCIATED WITH THIS PRODUCT, EVEN WHEN APPLICATIONS ARE MADE IN CONFORMANCE WITH THE LABEL SPECIFICATIONS. IN SOME CASES, THESE FACTORS CAN RESULT IN BOLL LOSS, DELAYED MATURITY AND/OR YIELD LOSS.

#### **Preplant, At-Planting, Preemergence**

USE DIRECTIONS: This product may be applied before, during or after planting cotton.

MAKE APPLICATIONS ACCORDING TO THE RATES LISTED IN "ANNUAL WEED", "PERENNIAL WEEDS", AND "WOOD BRUSH AND TREE RATE" TABLES IN THIS LABEL.

RESTRICTIONS: Refer to the "ROUNDUP READY CROPS" section of this label for precautionary directions for use in Roundup Ready crops.

#### **Post-emergence (Over-the-Top)**

USE DIRECTIONS: This product may be applied by aerial or ground application equipment at rates up to 1 quart per acre per application post-emergence to Roundup Ready from the ground cracking stage until the 4-leaf (node) stage of development (until the fifth true leaf reaches the size of a quarter). Over-the-top applications made after the 4-leaf (node) stage of development may result in boll loss, delayed maturity and/or yield loss.

**Salvage Treatment:** This treatment may be used after the 4-leaf stage of development and may only be used where weeds threaten to cause the loss of the crop. One quart per acre may be applied either as an over-the-top application or as a post-directed treatment sprayed higher on the cotton plants and over the weeds.

**SALVAGE TREATMENTS WILL RESULT IN SIGNIFICANT BOLL LOSS, DELAYED MATURITY AND/OR YIELD LOSS. DO NOT MAKE MORE THAN ONE SALVAGE TREATMENT PER GROWING SEASON.**

PRECAUTIONS: Refer to the "ROUNDUP READY CROPS" section of this label for directions for use in Roundup Ready crops.

RESTRICTIONS: The combined total application of this product from cotton emergence until harvest must not exceed 6 quarts per acre.

NO MORE THAN TWO OVER-THE-TOP BROADCAST APPLICATIONS MAY BE MADE FROM CROP EMERGENCE THROUGH THE 4-LEAF (NODE) STAGE OF DEVELOPMENT. DO NOT MAKE MORE THAN TWO APPLICATIONS FROM THE 5-LEAF STAGE THROUGH LAYBY. SEQUENTIAL IN-CROP OVER-THE-TOP OR POST-DIRECTED APPLICATIONS OF THIS PRODUCT MUST BE AT LEAST 10 DAYS APART AND COTTON MUST HAVE AT LEAST TWO NODES OF INCREMENTAL GROWTH BETWEEN APPLICATIONS. ALLOW A MINIMUM OF 7 DAYS BETWEEN APPLICATION AND HARVEST.

**Selective Equipment**

USE DIRECTIONS: This product may be applied using precision post-directed or hooded sprayers at rates up to 1 quart per acre per application to Roundup Ready cotton through layby. At this stage, use post-directed equipment to direct the spray to the base of the cotton plants. Avoid contact of the herbicide spray with the cotton leaves to the maximum extent possible. To minimize spray contact maintain low spray pressure (less than 30 pounds per square inch) and place nozzles in a low position, directing a horizontal spray pattern under the cotton leaves and onto weeds in the row. For best results, make applications while weeds are small (less than 3 inches).

RESTRICTIONS: See the “SELECTIVE EQUIPMENT” part of the “APPLICATION EQUIPMENT AND TECHNIQUES” section of this label for information on proper use and calibration of this equipment.

**Preharvest**

USE DIRECTIONS: This product may be applied for annual and perennial weed control as a broadcast treatment prior to crop harvest after 20 percent boll crack. Apply up to 2 quarts of this product per acre using either aerial or ground spray equipment.

Tank Mixtures: This product may be tank mixed with Def 6, Folex, Ginstar, or Prep (or generic equivalents).

Note: This product will not enhance the performance of harvest aids when applied to Roundup Ready cotton.

RESTRICTIONS: Allow a minimum of 7 days between application and harvest of cotton. Do not apply this product to cotton grown for seed, as a reduction in germination or vigor may occur. REFER TO MANUFACTURERS LABELS FOR USE OF ADDITIVES (such as surfactants, stickers and spreaders) FOR PRE-HARVEST APPLICATION TO COTTON.

<b>MAXIMUM ALLOWABLE APPLICATION RATES</b>	
Combined total per year for all applications	8 quarts per acre
Preplant, Preemergence, At-Planting applications	5 quarts per acre
Total in-crop applications from ground cracking to layby	4 quarts per acre
Maximum pre-harvest application rate	2 quarts per acre

**ROUNDUP READY FLEX COTTON**

ATTENTION: USE OF THIS PRODUCT IN ACCORDANCE WITH LABEL DIRECTIONS IS EXPECTED TO RESULT IN NORMAL GROWTH OF ROUNDUP READY COTTON. HOWEVER, VARIOUS ENVIRONMENTAL CONDITIONS, AGRONOMIC PRACTICES AND OTHER FACTORS MAKE IT IMPOSSIBLE TO ELIMINATE ALL RISKS ASSOCIATED WITH THIS PRODUCT, EVEN WHEN APPLICATIONS ARE MADE IN CONFORMANCE WITH THE LABEL SPECIFICATIONS. IN SOME CASES, THESE FACTORS CAN RESULT IN BOLL LOSS, DELAYED MATURITY AND/OR YIELD LOSS.

**Preplant, At-Planting, Preemergence**

USE DIRECTIONS: This product may be applied before, during or after planting Roundup Ready Flex cotton. Always plant into a weed free seedbed. In no-till and stale seedbed systems, always burn down existing weeds before cotton emerges.

MAKE APPLICATIONS ACCORDING TO RATES LISTED IN “ANNUAL WEEDS”, “PERENNIAL WEEDS”, AND “WOODY BRUSH AND TREES RATE” TABLES IN THIS LABEL.

PRECAUTIONS: Refer to the “ROUNDUP READY CROPS” section of this label for precautionary directions for use in Roundup Ready crops.

**Postemergence (Over-the-Top)**

**USE DIRECTIONS:** This product may be applied to control annual grasses and broadleaf weeds listed on this label in Roundup Ready Flex cotton. To maximize yield potential, spray cotton early to eliminate competing weeds. Many perennial weeds will be controlled or suppressed with one or more applications of this product. In general, an initial application of 1 quart per acre on 1 to 3 inch tall annual grass and broadleaf weeds is specified. This product may be applied by ground application equipment at rates up to 1.5 quarts per acre per application post-emergence to Roundup Ready Flex cotton. In addition to broadcast applications, post-directed equipment may be used to achieve weed control.

**Note:** For specific rates of application and directions, refer to the “ANNUAL WEEDS” and “PERENNIAL WEEDS RATE SECTION” of this label.

**PRECAUTIONS:** In-crop application rates above 1 quart per acre made alone or with the addition of other crop chemical products containing surfactant may cause a crop response including leaf speckling or leaf necrosis. Application after the 10<sup>th</sup> leaf or 10<sup>th</sup> node may result in plant injury and yield loss.

**RESTRICTIONS:** The maximum rate for any single in-crop application of this product is 1.5 quarts per acre made using ground application equipment. Except for pre-harvest use, do not exceed a maximum rate of 1 quart per acre of this product when making applications by air. Between layby and 60 percent open bolls, the maximum combined total rate of this product that may be applied is 2 quarts per acre. The maximum combined total of all applications made from crop emergence to 60 percent open bolls must not exceed 6 quarts per acre.

### **Preharvest**

**USE DIRECTIONS:** Up to 2 quarts of this product may be applied using either aerial or ground spray equipment for annual and perennial weed control as a broadcast treatment prior to harvest after 60 percent boll crack. **NOTE:** This product will not enhance the performance of harvest aids when applied to Roundup Ready Flex cotton.

**RESTRICTIONS:** Allow a minimum of 7 days between application and harvest of cotton. Do not apply this product to cotton grown for seed as a reduction in germination or vigor may occur. **THE USE OF ADDITIVES, OTHER THAN THOSE LISTED ON THIS LABEL, FOR PREHARVEST APPLICATION TO COTTON IS PROHIBITED.**

<b>MAXIMUM ALLOWABLE APPLICATION RATES</b>	
Combined total per year for all applications (Calculate the combined rate to be used for all preplant, in-crop and preharvest applications)	8 quarts per acre
Preplant, Preemergence, At-Planting applications	5 quarts per acre
Total in-crop applications from ground cracking to 60 percent open bolls	6 quarts per acre
Maximum allowed from 60 percent bolls open to 7 days prior to harvest	2 quarts per acre

### **ROUNDUP READY SOYBEANS**

**THE USE OF THIS PRODUCT FOR IN-CROP APPLICATIONS OVER ROUNDUP READY SOYBEANS MAY NOT BE PRACTICED IN CALIFORNIA UNLESS THE APPLICATOR HAS AT THE TIME OF APPLICATION A CALIFORNIA APPROVED SUPPLEMENTAL LABEL SPECIFYING THE ACCEPTED DIRECTIONS FOR USE.**

#### **Preplant, At-Planting, Preemergence**

**USE DIRECTIONS:** This product may be applied before, during or after planting soybeans.

**MAKE APPLICATIONS ACCORDING TO RATES LISTED IN “ANNUAL WEEDS”, “PERENNIAL WEEDS”, AND “WOODY BRUSH AND TREES RATE” TABLES IN THIS LABEL.**

**PRECAUTIONS:** Refer to the "ROUNDUP READY CROPS" section of this label for precautionary directions for use in Roundup Ready crops.

### **Postemergence (In-crop)**

**USE DIRECTIONS:** This product may be used to control annual grasses and broadleaf weeds listed on this label in Roundup Ready soybeans. Applications of this product can be made in from emergence (cracking) through flowering. Refer to the "ANNUAL WEEDS RATE TABLE" in this label for rates for specific annual weeds. In general, an initial application of 1 quart per acre on 2- to 8-inch tall weeds is specified. Weeds will generally be 2 to 8 inches tall, 2 to 5 weeks after planting. If the initial application is delayed and weeds are larger, apply a higher rate of this product. This product may be used up to 2 quarts per acre in any single in-crop application for control of annual weeds and where dense weed populations exist.

A 1- to 2-quarts per acre rate (single or multiple applications) of this product will control or suppress perennial weeds such as: Bermudagrass, Canada thistle, common milkweed, field bindweed, hemp dogbane, horsenettle, marestail (horseweed), nutsedge, quackgrass, rhizome johnsongrass, redvine, trumpetcreeper, swamp smartweed and wirestem muhly. For best results, allow perennial weed species to achieve at least 6 inches of growth before spraying with this product.

Under adverse growing conditions such as drought, hail, wind damage or a poor soybean stand that slows or delays canopy closure, a sequential application of this may be necessary to control late flushes of weeds. **IN THE SOUTHERN STATES, A SEQUENTIAL APPLICATION OF THIS PRODUCT WILL BE REQUIRED TO CONTROL NEW FLUSHES OF WEEDS IN THE ROUNDUP READY SOYBEAN CROP.** To control giant ragweed, apply 1 quart per acre of this product per acre when the weed is 8 to 12 inches tall to increase control and possibly avoid the need for a sequential application.

**RESTRICTIONS:** The combined total application from crop emergence through harvest must not exceed 3 quarts per acre. The maximum rate for any single in-crop application is 2 quarts per acre. The maximum combined total of this product that can be applied during flowering is 2 quarts per acre.

### **Preharvest**

**USE DIRECTIONS:** This product provides weed control prior to harvest of soybeans. Up to 1 quart per acre of this product can be applied by aerial or ground application.

**PRECAUTIONS:** Care should be taken to avoid excessive seed shatter loss due to ground application equipment.

**RESTRICTIONS:** Allow a minimum of 14 days between final application and harvest of soybean grain or feeding of soybean grain, forage or hay.

### **Post-Harvest**

**USE DIRECTIONS:** This product may be applied after harvest of Roundup Ready soybeans. Higher rates may be required for control of large weeds that were growing in the crop at the time of harvest. Tank mixtures with 2,4-D or dicamba may be used.

<b>MAXIMUM ALLOWABLE APPLICATION RATES</b>	
Combined total per year for all applications	8 quarts per acre
Preplant, Preemergence, At-Planting applications	5 quarts per acre
Total in-crop applications from cracking throughout flowering	3 quarts per acre
Maximum pre-harvest application rate	1 quart per acre

### **ROUNDUP READY SUGAR BEETS**

The Roundup Ready designation indicates that the sugar beet contains a patented gene, which provides tolerance to this product. Information on Roundup Ready sugar beet may be obtained from your seed supplier or CropSmart, LLC representative. Roundup Ready crop varieties must be purchased from an authorized licensed seed supplier.

Do NOT combine these directions with other directions made for crop varieties that do not contain a Roundup Ready gene listed in the “ANNUAL AND PERENNIAL CROPS)” sections of this label booklet.

### **Preplant, At-Planting, Preemergence**

USE DIRECTIONS: This product may be applied before, during or after planting of Roundup Ready sugar beets.

MAKE APPLICATIONS ACCORDING TO THE RATES LISTED IN “ANNUAL WEEDS”, “PERENNIAL WEEDS” AND “WOODY BRUSH AND TREE” RATES TABLES IN THIS LABEL.

RESTRICTIONS: Maximum quantity of this product that may be applied for all preplant, at-planting and preemergence applications combined is 5 quarts per acre per season.

### **Postemergence (In-Crop)**

USE DIRECTIONS: This product may be applied over-the-top of Roundup Ready sugar beets for control of annual grasses and broadleaf weeds from emergence to 30 days prior to harvest. To maximize yield potential, spray sugar beets early to eliminate competing weeds. Up to 4 sequential applications of this product may be made with at least 10 days between applications. This product will control or suppress most perennial weeds. For some perennial weeds, repeat applications may be required to eliminate crop competition throughout the growing season.

RESTRICTIONS: The combined total application from crop emergence through harvest must not exceed 4.5 quarts per acre. The maximum rate for any single application from crop emergence until the 8-leaf stage is 1.5 quarts per acre. The maximum rate for any single application between the 8-leaf stage and canopy closure is 1 quart per acre. Allow a minimum of 30 days between last application and sugar beet harvest. For any crop NOT listed in the “CROPS” section of this label booklet, applications must be made at least 30 days prior to planting.

<b>MAXIMUM ALLOWABLE APPLICATION RATES</b>	
Combined total per year for all applications	8 quarts per acre
Preplant, Preemergence applications	5 quarts per acre
Emergence to 8 leaf stage	2.5 quarts per acre
Between 8 leaf stage and canopy closure	2 quarts per acre

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## **NON-CROP USES AROUND THE FARMSTEAD**

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### **Weed Control & Trim-and-Edge**

LABELED SITES: Non-crop areas including building foundations, along and in fences, in dry ditches and canals, along ditchbanks, farm roads, shelterbelts, prior to landscape plantings and equipment storage areas.

USE DIRECTIONS: This product may be used to control annual weeds, perennial weeds and woody brush which are found in any part of the farmstead.

MAKE APPLICATION ACCORDING TO THE RATES LISTED IN “ANNUAL WEEDS”, “PERENNIAL WEEDS”, AND “WOODY BRUSH AND TREE” RATE TABLES IN THIS LABEL.

Tank Mixtures: This product may be tank mixed with the following products (or generic equivalents). Refer to these products labels for approved farmstead sites and application rates. For annual weeds, use 1 quart per acre of this product when weeds are less than 6 inches tall and 1.5 quarts per acre when weeds are greater than 6 inches tall. For perennial weeds, apply 2 to 5 quarts per acre in these tank mixes.

For tank mixtures with these products through backpack sprayers, handguns or other high-volume spray-to-wet applications, see the “ANNUAL WEEDS -HAND-HELD AND-OR HIGH VOLUME EQUIPMENT” section of this label for specific rates.

Arsenal	Oust	Sahara
Barricade 65WG	Pendulum 3.3 EC	Simazine
Diuron	Pendulum WDG	Surflan
Endurance	Plateau	Elar
Escort	Princep DF	Vanquish
Karmex DF	Princep Liquid	2,4-D
Krovar DF	Ronstar 50 WP	

For control or partial control of the following perennial weeds, apply 1 to 2 quarts of this product plus 2 to 4 ounces of Oust per acre.

Bahiagrass	Fescue, tall
Bermudagrass	Johnsongrass
Broomsedge	Poorjoe
Dallisgrass	Quackgrass
Dock, curly	Vaseygrass
Dogfennel	Vervain, blue

RESTRICTION: This product plus dicamba tank mixtures must not be applied by air in CA.

### **Greenhouse / Shadehouse**

USE DIRECTIONS: This product may be used to control weeds in and around greenhouses and shadehouses via spot spray or directed spray applications.

MAKE APPLICATION ACCORDING TO THE RATES LISTED IN "ANNUAL WEEDS", "PERENNIAL WEEDS", AND "WOODY BRUSH AND TREE" RATE TABLES IN THIS LABEL.

RESTRICTIONS: Desirable vegetation must not be present during application. Air circulation fans must be turned off.

### **Chemical Mowing**

LABELED SITES: Farm ditches and other parts of Farmsteads

TYPES OF APPLICATIONS: Use any suitable application equipment described in the "APPLICATION EQUIPMENT AND TECHNIQUES" section.

USE DIRECTIONS: This product will suppress perennial grasses listed in this section to serve as a substitute for mowing. Use 8 fluid ounces of this product per acre when treating tall fescue, fine fescue, orchardgrass or quackgrass covers. Use 6 fluid ounces of this product per acre when treating Kentucky bluegrass. Use 16 fluid ounces of this product per acre when treating bermudagrass. Use 64 fluid ounces of this product per acre when treating torpedograss or paragrass. Apply treatments in 10 to 20 gallons of spray solution per acre.

RESTRICTIONS: Use only in areas where some temporary injury or discoloration of perennial grasses can be tolerated.

### **Cut Stumps**

LABELED USE: On any non-crop site listed.

TYPES OF APPLICATIONS: Suitable hand-held equipment

USE DIRECTIONS: This product will control regrowth of cut stumps and resprouts of many types of woody brush and tree species, some of which are listed below. Apply this product using suitable equipment to ensure coverage of the entire cambium. Cut trees or resprouts close to the soil surface. Apply a 50 to 100 percent solution of this product to the freshly cut surface immediately after cutting. Delays in application may result in reduced performance. For best results, make applications during periods of active growth and full leaf expansion.

Alder	Pepper, Brazilian	Sweetgum
Eucalyptus	Pine, Austrian	Tan Oak
Madrone	Reed, giant	Willow
Oak	Salt cedar	

PRECAUTIONS: Some sprouts, stems, or trees may share the same root system. Adjacent trees having a similar age, height and spacing may signal shared roots. Whether grafted or shared, injury is likely to occur to non-treated stems/trees when one or more trees sharing common roots are treated.

### **Habitat Management**

LABELED USES: Habitat restoration and maintenance, Wildlife food plots.

USE DIRECTIONS: This product may be used to control exotic and other undesirable vegetation in habitat management and natural areas including rangeland and wildlife refuges. Applications can be made to allow recovery of native plant species, prior to planting desirable native species, and for similar broad-spectrum vegetation control requirements in habitat management areas.

MAKE APPLICATION ACCORDING TO THE RATES LISTED IN “ANNUAL WEEDS”, “PERENNIAL WEEDS”, AND “WOODY BRUSH AND TREE” RATE TABLES IN THIS LABEL.

Spot treatments can be made to selectively remove unwanted plants for habitat maintenance and enhancement.

This product may be used as a site preparation treatment to control annual and perennial weeds prior to planting wildlife food plots. Any wildlife food species may be planted after applying this product, or native species may be allowed to repopulate the area.

RESTRICTIONS: If tillage is needed to prepare the seedbed, wait 7 days after application before tillage to allow translocation into underground plant parts.

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## **FORESTRY, INDUSTRIAL, TURF & ORNAMENTAL**

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### **Forestry Site Preparation**

TYPES OF APPLICATION: Boom sprayers, Shielded boom sprayers, High-volume off-center nozzles, Hand-held equipment, and similar equipment.

USE DIRECTIONS: Use this product for the control or partial control of woody brush, trees and herbaceous weeds in forestry. This product may also be used in preparing and establishing wildlife openings with these sites and maintaining logging roads.

MAKE APPLICATION ACCORDING TO THE RATES LISTED IN “ANNUAL WEEDS”, “PERENNIAL WEEDS”, AND “WOODY BRUSH AND TREE” RATE TABLES IN THIS LABEL.

Use this product for site preparation prior to planting any tree species, including Christmas trees, eucalyptus, hybrid tree cultivars and silvicultural nursery sites.

Use higher rates of this product within the specified range for control or partial control of woody brush, trees and hard-to-control perennial herbaceous weeds. For best results, apply to actively growing woody brush and trees after full leaf expansion and before fall color and leaf drop. Increase rates within the specified range for control of perennial herbaceous weeds any time after emergence and before seedheads, flowers or berries appear.

Use the lower rates of this product within the specified range for control of annual herbaceous weeds and actively growing perennial herbaceous weeds after seedheads, flowers or berries appear. Apply to the foliage of actively growing annual herbaceous weeds any time after emergence.

Tank Mixtures: Tank mixtures of this product may be used to increase the spectrum of vegetation controlled. When tank mixing, read and carefully observe the label claims, cautionary statements and all information on the labels of all products used. Use according to the most restrictive precautionary statements for each product in the mixture.

Note: For forestry site preparation, make sure the tank-mix product is approved for use prior to planting the desired species. Observe planting interval restrictions.

Any specified rate of this product may be used in a tank mix with the following products (or generic equivalents) for forestry site preparation:

Arsenal Applicators Concentrate	Garlon 4A
Chopper	Landmark XP
Escort or Escort XP	Oust or Oust XP
Garlon 3A	Westar

For control of herbaceous weeds, use the lower labeled tank mixture rates. For control of dense stands or tough-to-control woody brush and trees, use the higher labeled rates.

RESTRICTIONS: Do not apply this product as an over-the-top broadcast spray for forestry conifer or hardwood release unless otherwise specified on this label or in separate supplemental labeling published by CropSmart, LLC for this product.

### **Noncrop Areas & Industrial Sites**

LABELED USES: Non-crop areas including airports, apartment complexes, Christmas tree farms, commercial sites, Conservation Reserve Program (CRP) areas, ditch banks, dry ditches, dry canals, fencerows, golf courses, greenhouses, industrial sites, landscape areas, lumber yards, manufacturing sites, municipal sites, natural areas, office complexes, ornamentals, parks, parking areas, pastures, petroleum tank farms and pumping installations, plant nurseries, public areas, railroads, rangeland, recreational areas, residential areas, rights-of-way, roadsides, schools, sod or turf seed farms, sports complexes, storage areas, substations, turfgrass areas, utility sites, warehouse areas, and wildlife management areas.

TYPES OF APPLICATION: Any suitable application equipment described in the "APPLICATION EQUIPMENT AND TECHNIQUES" section.

USE DIRECTIONS: This product may be used to trim-and-edge around objects in non-crop sites, for spot treatment of unwanted vegetation and to eliminate unwanted weeds growing in established shrub beds or ornamental plantings. This product may be used prior to planting an area to ornamentals, flowers, turfgrass (sod or seed), or prior to laying asphalt or beginning construction projects.

MAKE APPLICATION ACCORDING TO THE RATES LISTED IN "ANNUAL WEEDS", "PERENNIAL WEEDS", AND "WOODY BRUSH AND TREE" RATE TABLES IN THIS LABEL.

Repeated applications of this product may be used, as weeds emerge, to maintain bare ground.

TANK MIXTURES: This product may be tank mixed with the following products, provided that the specific product is registered for use on such non-crop sites. Refer to these products' labels for approved non-crop sites and application rates. Read and carefully observe the cautionary statement and all other information appearing on the labels of all herbicides used. Use according to the most restrictive precautionary statements for each product in the mixture.

User is responsible for ensuring that the mixture product's label allows the specific applications.

Arsenal	Outrider
atrazine	pendimethalin
Barricade 65WG	Plateau
Certainty	Crossbow L
dicamba*	Landmark II MP
diuron	Landmark II
Endurance	Ronstar 50 WP
Escort	simazine
Escort XP	Surflan AS
Gallery 75DF	Surflan WDG



Garlon 3A	Telar DF
Garlon 4	Transline
Goal 2XL	Velpar DF
Krovar I DF	Velpar L
Oust	2,4-D
Oust XP	Poast

When applied as a tank mixture for bare ground, this product provides control of the emerged annual weeds and control or partial control of emerged perennial weeds, woody brush and trees.

For control or partial control of the following perennial weeds, apply 1 to 2 quarts of this product plus 2 to 4 ounces of Oust or Oust XP per acre.

Bahiagrass	Dock, curly	Poorjoe
Bermudagrass	Dogfennel	Quackgrass
Broomsedge	Fescue, tall	Vaseygrass
Dallisgrass	Johnsongrass	Vervain, blue

RESTRICTION: \*This product plus dicamba tank mixtures must not be applied by air in CA.

### **Injection and Frill (Woody Brush and Trees)**

USE DIRECTIONS: This product may be used to control woody brush and trees by injection or frill applications. Apply this product using suitable equipment that must penetrate into the living tissue. Apply the equivalent of 0.04 fluid ounce (1 mL) of this product per each 2 to 3 inches of trunk diameter at breast height (DBH). This is best achieved by applying a 50- to 100-percent concentration of this product either to a continuous frill around the tree or as cuts evenly spaced around the tree below all branches. As tree diameter increases in size, better results are achieved by applying diluted material to a continuous frill or more closely spaced cuttings. For best results, make applications during periods of active growth and after full leaf expansion. This product will control many species, some of which are listed below:

<b>Control</b>	<b>Partial Control</b>
Oak	Black gum
Poplar	Dogwood
Sweetgum	Hickory
Sycamore	Maple, red

RESTRICTIONS: Avoid application techniques that allow runoff to occur from frilled or cut areas in species that exude sap freely. In species such as this, make the frill or cuts at an oblique angle to produce a cupping effect and use a 100-percent concentration of this product.

### **Hollow Stem Injection**

USE DIRECTIONS: This product may be applied through hand-held injection devices that deliver specified amounts of this product into targeted hollow-stem plants growing in any non-crop site specified on this label.

For control of the following hollow-stem plants, follow the use directions below:

**Japanese Knotweed, *Polygonum cuspidatum***

Inject 5 mL per stem of this product between second and third internode.

**Bohemian Knotweed, *Polygonum bohemicum***

Inject 5 mL per stem of this product between the second and third internode.

**Giant Hogweed, *Heracleum mantegazzianum***

Inject one leaf cane per plant 12 inches above the root crown with 5 mL of a 5% v/v solution of this product.

**Poison Hemlock, *Conium maculatum***

Inject one leaf cane per plant 10 to 12 inches above the root crown with 5 mL of a 5% v/v solution of this product.

**Field horsetail, *Equisetum arvense***

Inject one segment above the root crown with 0.5 mL per stem of this product. Use a small syringe that calibrates to this rate.

**Canada Thistle, *Cirsium arvense***

Cut 8 to 9 of the tallest plants at bud stage in a clump with clippers. Use a cavity needle that is pushed into the stem center and then slowly remove as 0.5 mL per stem of this product is injected into the stem.

RESTRICTIONS: The combined total for all treatments must not exceed 7 quarts of this product per acre. At 5 mL per stem, 7 quarts will treat approximately 1300 stems per acre.

**Ornamentals, Plant Nurseries and Christmas Trees**

LABELED SITES: Plant Nurseries, Christmas Tree farms and other non-food tree production sites.

RESTRICTIONS: UNLESS OTHERWISE DIRECTED, DO NOT USE THIS PRODUCT AS AN OVER-THE-TOP BROADCAST SPRAY IN ORNAMENTALS AND CHRISTMAS TREES. Care must be taken to avoid contact of spray, drift or mist with foliage or green bark of desirable ornamental species.

**Post-directed, Trim-and-edge**

USE DIRECTIONS: This product may be used as a post-directed spray around established woody ornamental species (including arborvitae, azalea, boxwood, crabapple, eucalyptus, euonymus, fir, Douglas fir, jojoba, hollies, lilac, magnolia, maple, oak, poplar, privet, pine, spruce and yew, growing in plant nurseries, on Christmas tree farms, or no other non-food tree production sites), or to trim and edge around trees, buildings, sidewalks and roads, potted plants and other objects in a production setting.

Apply at a concentration specified in the "ANNUAL WEEDS RATE TABLE", "PERENNIAL WEEDS RATE TABLE", or "WOODY BRUSH AND TREES RATE TABLE".

Desirable plants may be protected from the spray solution by using shields or coverings made of cardboard or other impermeable material.

**Site Preparation**

This product may be used prior to planting any tree, shrub, or vine in an ornamental, nursery, or production setting, including Christmas tree species.

**Wiper Application**

This product may be used through wick or other suitable wiper applicators to control or partially control undesirable vegetation around established trees, shrubs, or vines. See the "SELECTIVE EQUIPMENT" section of this label for further information about the proper use of wiper applicators.

**Parks, Recreational and Residential Areas**

LABELED SITES: Around Trees, Fences, Paths, Driveways, Around Buildings, Patios, Sidewalks, Flower Beds, Around Shrubs and other Ornamental Plants

RESTRICTIONS: Spray only when air is calm. Care must be taken to avoid contact of spray, drift of mist with foliage or green bark of desirable ornamental species.

**Trim-and-Edge, Spot Treatment**

USE DIRECTIONS: This product may be used to eliminate unwanted weeds growing in areas listed above. Use suitable hand-held equipment for directed spraying according to directions under "MIXING FOR HAND-HELD SPRAYERS".

If necessary, use cardboard or plastic to shield desirable plants.

Do not use for spot weed control in lawns since desirable lawn grass will also be killed.

**Site Preparation, Lawn Renovation**

USE DIRECTIONS: This product may be used prior to planting an area to ornamentals, flowers, turfgrass (sod or seed), lawn renovation or prior to laying asphalt or beginning construction projects.

MAKE APPLICATION ACCORDING TO THE RATES LISTED IN "ANNUAL WEEDS", "PERENNIAL WEEDS", AND "WOODY BRUSH AND TREE" RATE TABLES IN THIS LABEL.

Apply using suitable broadcast or directed spray equipment.

For lawn renovation, thorough coverage is necessary to kill all weeds and old lawn.

For best results, apply when daytime temperatures are at least 60°F. Do not mow for 7 days before or after treatment.

7 days after application, soil may be tilled, fertilized and seeded.

### **Railroads**

LABELED SITES: Railroad Rights-of-Way, Railroad Ballast areas

APPLICATION TYPE: Any suitable application equipment described in the "APPLICATION EQUIPMENT AND TECHNIQUES" section.

RESTRICTIONS: Avoid applications to non-target plants due to drift, overspray or runoff. Observe application directions and precautions in "APPLICATION EQUIPMENT AND TECHNIQUES".

#### **Boom Sprayers, Shielded Boom Sprayers, High-Volume Off-Center Nozzles, Hand-Held Equipment**

USE DIRECTIONS: All of the directions described in the "NON-CROP AREAS AND INDUSTRIAL SITES" section apply to railroads.

MAKE APPLICATION ACCORDING TO THE RATES LISTED IN "ANNUAL WEEDS", "PERENNIAL WEEDS", AND "WOODY BRUSH AND TREE" RATE TABLES IN THIS LABEL.

This product may be used to maintain bare ground on railroad ballast and shoulders. Repeat applications of this product may be used, as weeds emerge, to maintain bare ground. This product may be used to control tall-growing weeds to improve line-of-sight at railroad crossings and reduce the need for mowing along rights-of-way. For crossing applications, up to 80 gallons of spray solution per acre may be used.

TANK MIXTURES: This product may be tank mixed with the following products (or generic equivalents) for ballast, shoulder, spot, bare ground and crossing treatments, provided that the specific product is registered for use on such non-crop sites. Refer to these product labels for approved non-crop sites and application rates. Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used. Use according to the most restrictive precautionary statements for each product in the mixture.

Arsenal	Krovar I DF
dicamba	Oust
Diuron	Sahara
Escort	Spike
Garlon 3A	Telar
Garlon 4	Velpar
Hyvar X	2,4-D

### **Brush Control**

This product may be used to control woody brush and trees on railroad rights-of-way. Apply 4 to 10 quarts of this product per acre as a broadcast spray, using boom-type or boomless nozzles. Up to 80 gallons of spray solution per acre may be used. Apply 3/4 to 2 percent solution of this product when using high-volume spray-to-wet applications. Apply a 5 to 10 percent solution of this product when using low volume directed sprays for spot treatment. This product may be mixed with the following products (or generic equivalent) for enhanced control of woody brush and trees:

Arsenal	Telar DF
Escort	Tordon K
Garlon 3A	Tordon 22K
Garlon 4	Transline
Krenite	Vanquish
	Velpar

### **Roadsides**

LABELLED SITES: Roadside Rights of Way areas (including Shoulders, Guardrails and Signposts)

RESTRICTIONS: Avoid application to non-target plants due to drift, overspray or runoff. Observe application directions and precautions in "APPLICATION EQUIPMENT AND TECHNIQUES".

#### **Boom Sprayers, Shielded Boom Sprayers, High-Volume Off-Center Nozzles, Hand-Held Equipment, and similar equipment**

USE DIRECTIONS: All of the directions described in the "NON-CROP AREAS AND INDUSTRIAL SITES" section apply to roadsides.

MAKE APPLICATION ACCORDING TO THE RATES LISTED IN "ANNUAL WEEDS", "PERENNIAL WEEDS", AND "WOODY BRUSH AND TREE" RATE TABLES IN THIS LABEL.

This product may be used on road shoulders, under guardrails and around signposts and other objects along roadsides that may be obstacles to mowing.

Tank Mixtures: This product may be tank-mixed with the following products (or generic equivalent) for shoulder, guardrail, spot and bare ground treatments:

Banvel	Princep Liquid
Diuron	Ronstar 50 WP
Endurance	Sahara
Escort	Simazine
Krovar I DF	Surflan
Oust	Telar
Pendulum 3.3 EC	Vanquish
Pendulum WDG	2,4-D
Princep DF	

See the "NONCROP AREAS AND INDUSTRIAL SITES" section of this label for directions for tank mixing.

#### **Spot Treatment**

USE DIRECTIONS: This product may be used as a spot treatment to control unwanted vegetation growing along roadsides.

### **Utility Sites**

LABELLED SITES: Electrical Power, Pipeline and Telephone Rights-of-Way, and in other sites associated with these Rights-of-Way, including Substations, Roadsides, Railroads or similar Rights-of-Way that run in conjunction with utilities.

#### **Boom Sprayers, Shielded Boom Sprayers, High-Volume Off-Center Nozzles, Hand-Held Equipment, and similar equipment**

USE DIRECTIONS: This product may be used in utility sites and substations to control unwanted vegetation and to eliminate unwanted weeds growing in established shrub beds or ornamental plantings. This product may be used prior to planting a utility site to ornamentals, flowers, turfgrass (sod or seed), or beginning construction projects.

MAKE APPLICATION ACCORDING TO THE RATES LISTED IN “ANNUAL WEEDS”, “PERENNIAL WEEDS”, AND “WOODY BRUSH AND TREE” RATE TABLES IN THIS LABEL.

Repeated applications of this product may be used, as weeds emerge, to maintain bare ground.

This product can also be used when preparing or establishing wildlife openings within these sites, maintaining access roads and for side trimming along utility rights-of-way.

For control of herbaceous weeds, use the lower specified tank mixture rates. For control of dense stands or tough-to-control woody brush and trees, use the higher specified rates.

Tank Mixtures: Tank mixtures of this product may be used to increase the spectrum of control for herbaceous weeds, woody brush and trees. This product may be tank mixed with the following products (or equivalent). Refer to these products labels for approved non-crop sites and application rates. Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used. Use according to the most restrictive precautionary statements for each product in the mixture.

User is responsible for ensuring that the mixture products label allows the specific application when tank mixing with a single generic active ingredient listed below.

Arsenal	Krenite	simazine <sup>1</sup>
atrazine <sup>1</sup>	Krovar I DF	Surflan AS
Barricade 65WG	Oust	Surflan WDG
dicamba <sup>1</sup>	Oust XP	Telar DF
diuron <sup>1</sup>	Outrider	Transline
Endurance	pendimethalin <sup>1</sup>	Vanquish
Escort	Plateau	Velpar DF
Escort XP	Princep	Velpar L
Garlon 3A <sup>2</sup>	Ronstar 50WP	2,4-D <sup>2</sup>
Garlon 4 <sup>3</sup>	Sahara	

<sup>1</sup> Tank mixtures with product containing this active ingredient may be made provided the specified product is registered for the use.

<sup>2</sup> Ensure that Garlon 3A is thoroughly mixed with water according to label directions before adding this product. Have spray mixture agitating at the time this product is added to avoid spray incompatibility problems.

<sup>3</sup> For side trimming treatments, use this product alone or in a tank mixture with Garlon 4.

RESTRICTIONS: Avoid application to non-target plants due to drift, overspray or runoff. Observe application directions and precautions in the section “APPLICATION EQUIPMENT AND TECHNIQUES”.

### ANNUAL WEEDS RATE TABLES ALPHABETICALLY BY SPECIES

Use water carrier volumes of 3 to 10 gallons per acre for ground applications and 3 to 5 gallons per acre for aerial applications.

Apply to actively growing annual weeds. Annual weeds are generally easiest to control when they are small.

Older, mature (hardened) annual weed species may require higher specified rates even if they meet the size requirements.

Do not tank mix with soil residual herbicides when using these rates unless otherwise specified.

For weeds that have been mowed, grazed or cut, allow regrowth to occur prior to treatment.

This product may be used up to 48 fluid ounces per acre where heavy weed densities exist.

#### ANNUAL WEEDS RATE TABLE

WEED SPECIES	APPLICATION RATE (fluid ounces/acre)				
	16	24	32	40	48
	MAXIMUM HEIGHT/LENGTH (in inches)				
Ammania, purple	3	6	12	-	18
Annoda, spurred	-	2	3	5	8
Barley	18	18+	-	-	-
Barnyardgrass	-	3	6	7	9
Bassia, fivehook	-	-	6	-	-
Beggarweed, Florida	-	5	8	-	-
Bittercress	12	20	-	-	-
Bluegrass, annual	10	-	-	-	-
Bluegrass, bulbous	6	-	-	-	-
Brome, downy <sup>1,2</sup>	6	12	-	-	-
Brome, Japanese	6	12	24	-	-
Browntop panicum	6	8	12	-	24
Buckwheat, wild <sup>3</sup>	-	1	2	-	-
Burcucumber	-	6	12	-	18
Buttercup	12	20	-	-	-
Carolina geranium	-	-	4	-	9
Carpetweed	-	6	12	-	-
Cheat <sup>2</sup>	6	20	-	-	-
Chervil	20	-	-	-	-
Chickweed	-	12	18	-	-
Cocklebur	12	18	24	-	36
Copperleaf hophornbeam	-	2	4	-	6
Copperleaf, Virginia	-	2	4	-	6
Coreopsis, plains	-	6	12	-	18
Corn, Volunteer	6	12	20	-	-
Corn speedwell	12	-	-	-	-
Crabgrass	3	6	12	-	-
Crowfootgrass	-	-	6	-	12
Cutleaf evening primrose	-	-	3	-	6
Devilsclaw (unicorn plant)	-	3	6	-	-
Dwarf dandelion	12	-	-	-	-

WEED SPECIES	APPLICATION RATE (fluid ounces/acre)				
	16	24	32	40	48
	MAXIMUM HEIGHT/LENGTH (in inches)				
Eastern mannagrass	8	12	-	-	-
Eclipta	-	4	8	12	-
Fall panicum	4	-	6	-	12
Falsedandelion	-	20	-	-	-
Falseflax, smallseed	12	-	-	-	-
Fiddleneck	-	6	12	-	-
Field pennycress	6	12	-	-	-
Filaree	-	-	6	-	12
Fleabane, annual	6	20	-	-	-
Fleabane, hairy ( <i>Conyza bonariensis</i> )	-	-	6	-	10
Fleabane, rough	3	6	12	-	-
Florida pusley	-	-	4	-	6
Foxtail, giant, bristly, yellow	6	12	20	-	-
Foxtail, Carolina	10	-	-	-	-
Foxtail, green	12	-	-	-	-
Goatgrass, jointed	6	12	-	-	-
Goosegrass	-	3	6	-	12
Grain sorghum (milo)	6	12	20	-	-
Groundcherry	-	3	6	-	9
Groundsel, common	-	6	10	-	-
Hemp sesbania	-	2	4	6	8
Henbit	-	-	6	-	12
Horseweed/Marestail ( <i>Conyza canadensis</i> )	-	6	12	-	18
Itchgrass	6	8	12	-	18
Jimsonweed	-	-	12	-	18
Johnsongrass, seedling	6	12	18	-	24
Junglerice	-	3	6	7	9
Knotweed	-	-	6	-	12
Kochia <sup>4</sup>	-	3 to 6	12	-	-
Lambsquarters	-	6	12	-	20
Little barley	6	12	-	-	-
London rocket	6	-	24	-	-
Mayweed	-	2	6	12	18
Morningglory ( <i>Ipomoea spp.</i> )	-	-	3	-	6
Mustard, blue	6	12	18	-	-
Mustard, tansy	6	12	18	-	-
Mustard, tumble	6	12	18	-	-
Mustard, wild	6	12	18	-	-
Nightshade, black	-	4	6	-	12
Nightshade, hairy	-	4	6	-	12
Oats	3	6	18	-	-
Pigweed	-	12	18	24	-
Prickly lettuce	-	6	12	-	-
Purslane	-	-	3	-	6

WEED SPECIES	APPLICATION RATE (fluid ounces/acre)				
	16	24	32	40	48
	MAXIMUM HEIGHT/LENGTH (in inches)				
Ragweed, common	-	6	12	-	18
Ragweed, giant	-	6	12	-	18
Red rice	-	-	4	-	-
Rye, volunteer/cereal <sup>2</sup>	6	18	18+	-	-
Ryegrass	-	-	6	-	12
Sandbur, field	6	12	-	-	-
Sandbur, longspine	6	12	-	-	-
Shattercane	6	12	20	-	-
Shepherdspurse	6	12	-	-	-
Sicklepod	-	2	4	-	8
Signalgrass, broadleaf	-	3	6	7	9
Smartweed, ladythumb	-	-	6	-	9
Smartweed, Pennsylvania	-	-	6	-	9
Sowthistle, annual	-	-	6	-	12
Spanishneedles	-	-	6	-	12
Speedwell, purslane	12	-	-	-	-
Sprangletop	6	12	20	-	-
Spurge, prostrate	-	6	12	-	-
Spurge, spotted	-	6	12	-	-
Spurry, umbrella	6	-	-	-	-
Stinkgrass	-	12	-	-	-
Sunflower	12	18	-	-	-
Swinecress	-	5	12	-	-
Teaweed/Prickly sida	-	2	4	-	6
Texas panicum	6	8	12	-	24
Thistle, Russian <sup>5</sup>	-	6	12	-	-
Velvetleaf	-	-	6	-	12
Virginia pepperweed	-	18	-	-	-
Waterhemp	-	-	6	-	12
Wheat <sup>2</sup>	6	12	18	-	-
Wheat (overwintered)	-	6	12	-	18
Wild oats	3	6	18	-	-
Wild proso millet	-	6	12	-	18
Witchgrass	-	12	-	-	-
Woolly cupgrass	-	6	12	-	-
Yellow rocket	-	12	20	-	-

<sup>1</sup> For control of Downy brome in no-till systems, use 24 fluid ounces per acre.

<sup>2</sup> Performance is better if application is made before this weed reaches the boot stage of growth.

<sup>3</sup> Use 24 fluid ounces per acre of this product to control wild buckwheat in the cotyledon to 2-leaf stage. Use 32 fluid ounces per acre to control 2- to 4-leaf wild buckwheat. For improved control of wild buckwheat over 2 inches in size, use sequential treatments of 32 fluid ounces followed by 32 fluid ounces of this product per acre.



<sup>4</sup> Do not treat kochia in the button stage.

<sup>5</sup> Control of Russian thistle may vary based on environmental conditions and spray coverage. Whenever possible, a tank mixture with 2,4-D as described below may improve control.

#### **Annual Weeds - Water Carrier Volumes of 10 to 40 Gallons Per Acre**

Apply 1 to 2 quarts of this product per acre. Use 1 quart per acre if weeds are less than 6 inches tall and 1.5 quarts per acre if weeds are 6 to 12 inches tall and 2 quarts per acre if weeds are greater than 12 inches tall.

These rates will provide control of weeds listed in the annual weed control tables when water carrier volumes are 10 to 40 gallons per acre for ground applications. Older, mature (hardened) annual weed species may require higher rates even if they meet the size requirements.

#### **Annual Weeds - Tank Mixtures with 2,4-D or Dicamba or Picloram 22K**

12 to 16 fluid ounces of this product plus 0.25 pounds a.i. of Dicamba or 0.5 pounds a.i. of 2,4-D per acre or 1 to 2 fluid ounces of Picloram 22K per acre will control the following weeds with the maximum height or length indicated:

6" – prickly lettuce, maretail/horseweed (*Conyza canadensis*), morningglory (*Ipomoea spp.*), kochia (dicamba only); Wild buckwheat (Picloram 22K only).

12" – cocklebur, lambsquarters, pigweed, Russian thistle (2,4-D only).

16 fluid ounces of this product plus 0.5 pounds a.i. of 2,4-D per acre will control the following weeds when they are a maximum height or length of 6 inches: common ragweed, giant ragweed, Pennsylvania smartweed, and velvetleaf.

Refer to the specific product labels for crop rotation restrictions and cautionary statements of all products used in tank mixtures. Some crop injury may occur if dicamba or Picloram 22K is applied within 45 days of planting.

DO NOT APPLY DICAMBA TANK MIXTURES BY AIR IN CALIFORNIA.

#### **Annual Weeds – Hand-Held or High-Volume Equipment**

For control of weeds listed in the "ANNUAL WEEDS RATE TABLE" apply a 0.5 percent solution of this product to weeds less than 6 inches in height or runner length. Apply prior to seedhead formation in grass or bud formation in broadleaf weeds. For annual weeds over 6 inches tall, or unless otherwise specified, use a 1 percent solution.

For best results, use a 2 percent solution on harder-to-control perennials, such as bermudagrass, dock, field bindweed, hemp dogbane, milkweed and Canada thistle.

When using application methods that result in less than complete coverage, use a 5 percent solution for annual and perennial weeds and a 5 to 10 percent solution for woody brush and trees.

#### **Annual Weeds – Tank Mixtures with Atrazine for Fallow and Reduced Tillage Systems**

For use only in Colorado, Kansas, Nebraska, Oklahoma, Oregon, South Dakota, and Washington. In Oregon and Washington, do not exceed 1 pound of atrazine per acre.

24 to 48 fluid ounces of this product plus 1 to 2 pounds of atrazine per acre will control the following weeds: Barnyardgrass (requires 28 ounces for control), Downy brome, Green foxtail, Lambsquarters, Prickly lettuce, Tansy mustard, Pigweed, Field sandbur, Stinkgrass, Russian thistle, Volunteer wheat, Witchgrass and Kochia (add 1/8 pound of dicamba for control).

#### **PERENNIAL WEEDS RATE TABLE (ALPHABETICALLY BY SPECIES)**

Apply to actively growing perennial weeds.

NOTE: If weeds have been mowed or tilled, do not treat until plants have resumed active growth and have reached the specified stages.

Repeat treatments may be necessary to control weeds regenerating from underground parts or seed. Repeat treatments must be made prior to crop emergence.

Unless otherwise stated, allow 7 or more days after application before tillage.

Do not treat when weeds are under drought stress as good soil moisture is necessary for active growth.

For hand-held sprayers, prepare the desired volume of spray solution by mixing the amount of this product in water as shown in the following table:

### Spray Solution

Desired Volume	Amount of Crop\$mart Glyphosate 41% Extra					
	1/2%	1%	1 1/2%	2%	5%	10%
1 Gal	2/3 oz	1 1/3 oz	2 oz	2 2/3 oz	6 1/2 oz	13 oz
25 Gal	1 pt	1 qt	1 1/2 qt	2 qt	5 qt	10 qt
100 Gal	2 qt	1 gal	1 1/2 gal	2 gal	5 gal	10 gal

2 tablespoons = 1 fluid ounce

Weed Species	Rate (QT/A)	Water Volume	Hand-Held % Solution	Directions
Alfalfa	1-2	3-10	2%	Make applications after the last hay cutting in the fall. Allow alfalfa to regrow to a height of 6 to 8 inches or more prior to treatment. Follow applications with deep tillage at least 7 days after treatment but before soil freeze-up.
Alligatorweed	4	3-20	1.5%	Partial control. Apply when most of the plants are in bloom. Repeat applications will be required to maintain control.
Anise (fennel)	-	-	1-2 %	Apply as a spray-to-wet treatment. Optimum results are obtained when plants are treated at the bud to full-bloom stage of growth.
Bahiagrass	3-5	3-20	2%	Apply when most plants have reached the early head stage.
Bentgrass	1.5	10-20	2%	For suppression in grass seed production areas. For ground applications only. Ensure entire crown area has resumed growth prior to a fall application. Bentgrass should have at least 3 inches of growth. Do not till prior to treatment. Till 7 to 10 days after application for best results.
Bermudagrass	3-5	3-20	2%	For control, apply 5 quarts of this product per acre. For partial control, apply 3 quarts per acre. Treat when bermudagrass is actively growing and seedheads are present. Retreatment may be necessary to maintain control.
Bermudagrass, water (knotgrass)	1-1.5	5-10	2%	Apply 1.5 quarts of this product in 5 to 10 gallons of water per acre. Apply when water bermudagrass is 12 to 18 inches in length. Allow 7 or more days before tilling, flushing or flooding the field. Fall applications only: Apply 1 quart of this product in

Weed Species	Rate (QT/A)	Water Volume	Hand-Held % Solution	Directions
				5 to 10 gallons of water per acre. Till fallow fields prior to application. Apply prior to frost on water bermudagrass that is 12 to 18 inches in length. This product is not registered in California for use on water bermudagrass.
Bindweed, field	0.5-5	3-20	2%	<p>Do not treat when weeds are under drought stress as good soil moisture is necessary for active growth.</p> <p>For control, apply 4 to 5 quarts of this product per acre west of the Mississippi River and 3 to 4 quarts east of the Mississippi River. Apply when the weeds are at or beyond full bloom. For best results, apply in late summer or fall. Fall treatments must be applied before a killing frost.</p> <p>Also for control, apply 2 quarts of this product plus 0.5 pounds a.i. of Banvel® in 10 to 20 gallons of water per acre. Do not apply by air.</p> <p>For suppression on irrigated agricultural land, apply 1 to 2 quarts of this product plus 1 pound a.i. of 2,4-D in 10 to 20 gallons of water per acre with ground equipment only. Make applications following harvest or in fall fallow ground when the bindweed is actively growing and the majority of runners are 12 inches or more in length. The use of at least one irrigation will promote active bindweed growth.</p> <p>For suppression, apply 16 fluid ounces of this product plus 0.5 pound a.i. 2,4-D in 3 to 10 gallons of water per acre for ground applications and 3 to 5 gallons of water per acre for aerial applications. Apply by air in fallow and reduced tillage systems only. Delay applications until maximum emergence has occurred and when vines are between 6 to 18 inches in length.</p> <p>In California only, apply 1 to 5 quarts of this product per acre. Actual rate needed for suppression or control will vary within this range depending on local conditions. For suppression on irrigated land where annual tillage is performed, apply 1 quart of this product in 3 to 10 gallons of water per acre. Apply to bindweed that has reached a length of 12 inches or greater. Allow maximum weed emergence and runner growth. Allow 3 or more days after application before tillage.</p>
Bluegrass, Kentucky	1-2	3-40	2%	Apply 2 quarts of this product in 10 to 40 gallons of water per acre when most plants have reached boot-to-early seedhead stage of development. For partial control in pasture or hay crop renovation, apply 1 to 1.5 quarts of this product in 3 to 10 gallons of water

Weed Species	Rate (QT/A)	Water Volume	Hand-Held % Solution	Directions
				per acre. Apply to actively growing plants when most have reached 4 to 12 inches in height.
Blueweed, Texas	3-5	3-40	2%	Apply 4 to 5 quarts of this product per acre west of the Mississippi River and 3 to 4 quarts per acre east of the Mississippi River. Apply when plants are at or beyond full bloom. New leaf development indicates active growth. For best results, apply in late summer or fall. Fall treatments must be applied before a killing frost.
Brackenfern	3-4	3-40	1-1.5%	Apply to fully expanded fronds which are at least 18 inches long.
Bromegrass, smooth	1-2	3-40	2%	Apply 2 quarts of this product in 10 to 40 gallons of water per acre when most plants have reached boot-to-early seedhead stage of development. For partial control in pasture or hay crop renovation; apply 1 to 1.5 quarts of this product in 3 to 10 gallons of water per acre. Apply to actively growing plants when most have reached 4 to 12 inches in height.
Bursage, woolly-leaf	-	3-20	2%	For control, apply 2 quarts of this product plus 1 pint of Banvel® per acre. For partial control, apply 1 quart of this product plus 1 pint of Banvel® per acre. Apply when plants are producing new active growth which has been initiated by moisture for at least 2 weeks and when plants are at or beyond flowering.
Canarygrass, reed	2-3	3-40	2%	For best results apply when most plants have reached the boot-to-head stage of growth.
Cattail	3-5	3-40	2%	Apply when most plants have reached the early head stage.
Clover; red, white	3-5	3-20	2%	Apply when most plants have reached the early bud stage. Also for control, apply 16 to 32 fluid ounces of this product plus ½ to 1 pound of 2,4-D in 3 to 10 gallons of water per acre.
Cogongrass	3-5	10-40	2%	Apply when cogongrass is at least 18 inches tall in late summer or fall. Due to uneven stages of growth and the dense nature of vegetation preventing good spray coverage, repeat treatments may be necessary to maintain control.
Dallisgrass	3-5	3-20	2%	Apply when most plants have reached the early head stage.
Dandelion	3-5	3-40	2%	Apply when most plants have reached the early bud stage of growth. Also for control, apply 16 fluid ounces of this product plus 0.5 pound a.i. 2,4-D in 3 to 10 gallons of water per acre.
Dock, curly	3-5	3-40	2%	Apply when most plants have reached the early bud stage of growth. Also for control, apply 16 fluid ounces of this product plus 0.5 pound a.i. 2,4-D in 3 to 10 gallons of water per acre.
Dogbane, hemp	4	3-40	2%	Apply when most plants have reached the late bud to

Weed Species	Rate (QT/A)	Water Volume	Hand-Held % Solution	Directions
				flower stage of growth. Following crop harvest or mowing, allow weeds to regrow to a mature stage prior to treatment. For best results, apply in late summer or fall. For suppression, apply 16 fluid ounces of this product plus 0.5 pound a.i. of 2,4-D in 3 to 10 gallons of water per acre for ground applications and 3 to 5 gallons of water per acre for aerial applications. Delay applications until maximum emergence of dogbane has occurred.
Fescue (except tall)	3-5	3-20	2%	Apply when most plants have reached the early head stage.
Fescue, tall	1-3	3-40	2%	Apply 3 quarts of this product per acre when most plants have reached boot-to-early seedhead stage of development.  Fall applications only: Apply 1 quart of this product in 3 to 10 gallons of water per acre. Apply to fescue in the fall when plants have 6 to 12 inches of new growth. A sequential application of 1 pint per acre of this product will improve long-term control <del>and control</del> and control seedlings germinating after fall treatments or the following spring.
Guineagrass	2-3	3-40	1%	Apply when most plants have reached at least the 7-leaf stage of growth. Ensure thorough coverage when using hand-held equipment.
Horsenettle	3-5	3-20	2%	Apply when most plants have reached the early bud stage.
Horseradish	4	3-40	2%	Apply when most plants have reached the late bud to flower stage of growth. For best results, apply in late summer or fall.
Iceplant	-	-	1.5-2%	Iceplant should be at or beyond the early bud stage of growth. Thorough coverage is necessary for best control.
Jerusalem artichoke	3-5	3-20	2%	Apply when most plants are in the early bud stage.
Johnsongrass	0.5-3	3-40	1%	In annual cropping systems apply 1 to 2 quarts of this product per acre. Apply 1 quart of this product in 3 to 10 gallons of water per acre. Use 2 quarts of this product when applying 10 to 40 gallons of water per acre. In noncrop, or areas where annual tillage (no-till) is not practiced, apply 2 to 3 quarts of this product in 10 to 40 gallons of water per acre. For best results, apply when most plants have reached the boot-to-head stage of growth or in the fall prior to frost. Allow 7 or more days after application before tillage. Do not tank mix with residual herbicides when using the 1 quart per acre rate. For burndown of Johnsongrass, apply 1 pint of this product in 3 to 10 gallons of water per acre before

Weed Species	Rate (QT/A)	Water Volume	Hand-Held % Solution	Directions
				the plants reach a height of 12 inches. For this use, allow at least 3 days after treatment before tillage.  Spot treatment (partial control or suppression): -Apply a 1 percent solution of this product when Johnsongrass is 12 to 18 inches in height. Coverage should be uniform and complete.
Kikuyugrass	2-3	3-40	2%	Spray when most kikuyugrass is at least 8 inches in height (3 or 4-leaf stage of growth). Allow 3 or more days after application before tillage.
Knapweed	4	3-40	2%	Apply when most plants have reached the late bud to flower stage of growth. For best results, apply in late summer or fall.
Lantana	-	-	1-1.25%	Apply at or beyond the bloom stage of growth. Use the higher application rate for plants that have reached the woody stage of growth.
Lespedeza	3-5	3-20	2%	Apply when most plants have reached the early bud stage.
Milkweed, common	3	3-40	2%	Apply when most plants have reached the late bud to flower stage of growth.
Muhly, wirestem	1-2	3-40	2%	Use 1 quart of this product in 3 to 10 gallons of water per acre. Use 2 quarts of this product when applying 10 to 40 gallons of water per acre or in pasture, sod, or noncrop areas. Spray when the wirestem muhly is 8 inches or more in height. Do not till between harvest and fall applications or in the fall or spring prior to spring applications. Allow 3 or more days after application before tillage.
Mullein, common	3-5	3-20	2%	Apply when most plants are in the early bud stage.
Napiergrass	3-5	3-20	2%	Apply when most plants are in the early head stage.
Nightshade, silverleaf	2	3-10	2%	Make applications when at least 60 percent of the plants have berries. Fall treatments must be applied before a killing frost.
Nutsedge; purple, yellow	0.5-3	3-40	1-2%	Apply 3 quarts of this product per acre or apply a 1 to 2 percent solution for control of nutsedge plants and immature nutlets attached to treated plants. Treat when plants are in flower or when new nutlets can be found at rhizome tips. Nutlets which have not germinated will not be controlled and may germinate following treatment. Repeat treatments will be required for long-term control of ungerminated tubers.  Sequential applications: 1 to 2 quarts of this product in 3 to 10 gallons of water per acre will also provide control. Make applications when a majority of the plants are in the 3 to 5-leaf stage (less than 6 inches tall). Repeat this application, as necessary, when newly emerging plants reach the 3 to 5 leaf stage.

Weed Species	Rate (QT/A)	Water Volume	Hand-Held % Solution	Directions
				<p>Subsequent applications will be necessary for long-term control.</p> <p>For partial control of existing plants, apply 1 pint to 2 quarts of this product in 3 to 40 gallons of water per acre. Treat when plants have 3 to 5 leaves and most are less than 6 inches tall. Repeat treatments will be required to control subsequent emerging plants or regrowth of existing plants.</p>
Orchardgrass	1-2	3-40	2%	<p>Apply 2 quarts of this product in 10 to 40 gallons of water per acre when most plants have reached boot-to-early seedhead stage of development. For partial control in pasture or hay crop renovation, apply 1 to 1.5 quarts of this product in 3 to 10 gallons of water per acre. Apply to actively growing plants when most have reached 4 to 12 inches in height.</p> <p>Orchardgrass sods going to no-till corn: Apply 1 to 1.5 quarts of this product in 3 to 10 gallons of water per acre. Apply to orchardgrass that is a minimum of 12 inches tall for spring applications and 6 inches tall for fall applications. Allow at least 3 days following application before planting. A sequential application of atrazine will be necessary for optimum results.</p>
Pampasgrass	-	-	1.5-2%	Pampasgrass should be at or beyond the boot stage of growth. Thorough coverage is necessary for best control.
Paragrass	3-5	3-20	2%	Apply when most plants are in the early head stage.
Phragmites	3-5	10-40	1-2%	For partial control. For best results, treat during late summer or fall months or when plants are actively growing and in full bloom. Treatment before or after this stage may lead to reduced control. Due to the dense nature of the vegetation, which may prevent good spray coverage or uneven stages of growth, repeat treatments may be necessary to maintain control. Visual control symptoms will be slow to develop.
Poison hemlock	-	-	1-2%	Apply as a spray-to-wet treatment. Optimum results are obtained when plants are treated at the bud to full-bloom stage of growth.
Pokeweed, common	1	3-40	2%	Apply to actively growing plants up to 24 inches tall.
Quackgrass	1-3	3-40	2%	In annual cropping systems, or in pastures and sods followed by deep tillage: Apply 1 quart of this product in 3 to 10 gallons of water per acre. For 10 to 40 gallons of water per acre, apply 2 quarts of this product. Do not tank mix with residual herbicides when using the 1 quart rate. Spray when quackgrass is 6 to 8 inches in height. Do not till between harvest and fall applications or in fall or spring prior to spring application before tillage. In pastures or sods, use a

Weed Species	Rate (QT/A)	Water Volume	Hand-Held % Solution	Directions
				<p>moldboard plow for best results.</p> <p>In pastures, sods or noncrop areas where deep tillage does not follow application: Apply 2 to 3 quarts of this product in 10 to 40 gallons of water per acre when the quackgrass is greater than 8 inches tall.</p>
Redvine	0.75-2	5-10	2%	For suppression, apply 24 fluid ounces of this product per acre at each of two applications 7 to 14 days apart or a single application of 2 quarts per acre. Apply specified rates in 5 to 10 gallons of water per acre. Apply in late September or early October to plants which are at least 18 inches tall and have been growing 45 to 60 days since the last tillage operation. Make applications at least 1 week before a killing frost.
Reed, giant	-	-	2%	Best results are obtained when applications are made in late summer to fall.
Ryegrass, perennial	1-3	3-40	1%	<p>In annual cropping systems apply 1 to 2 quarts of this product per acre. Apply 1 quart of this product in 3 to 10 gallons of water per acre. Use 2 quarts of this product when applying 10 to 40 gallons of water per acre. In noncrop, or areas where annual tillage (no-till) is not practiced, apply 2 to 3 quarts of this product in 10 to 40 gallons water per acre.</p> <p>For best results, apply when most plants have reached the boot-to-head stage of growth or in the fall prior to frost. Do not tank-mix with residual herbicides when using the 1 quart per acre rate.</p>
Smartweed, swamp	3-5	3-40	2%	<p>Apply when most plants have reached the early bud stage of growth.</p> <p>Also for control, apply 16 fluid ounces of this product plus 0.5 pound a.i. 2,4-D in 3 to 10 gallons of water per acre in the late summer or fall.</p>
Sowthistle, perennial	2-3	3-40	2%	Apply when most plants are at or beyond the bud stage of growth. After harvest, mowing or tillage in the late summer or fall, allow at least 4 weeks for initiation of active growth and rosette development prior to the application of this product. Fall treatments must be applied before a killing frost. Allow 3 or more days after application before tillage.
Spurge, leafy	-	3-10	2%	For suppression, apply 16 fluid ounces of this product plus 0.5 pound a.i. 2,4-D in 3 to 10 gallons of water per acre in the late summer or fall. If mowing has occurred prior to treatment, apply when most of the plants are 12 inches tall.
Starthistle, yellow	2	10-40	2%	Best results are obtained when applications are made during the rosette, bolting and early flower stages.
Sweet potato,	-	-	2%	Partial control. Apply to plants that are at or beyond



Weed Species	Rate (QT/A)	Water Volume	Hand-Held % Solution	Directions
wild				the bloom stage of growth. Repeat applications may be required.
Thistle, artichoke	-	-	2%	Partial control. Apply to plants that are at or beyond the bloom stage of growth. Repeat applications may be required.
Thistle, Canada	2-3	3-40	2%	Apply when most plants are at or beyond the bud stage of growth. After harvest, mowing or tillage in the late summer or fall, allow at least 4 weeks for initiation of active growth and rosette development prior to the application of this product. Fall treatments must be applied before a killing frost. Allow 3 or more days after application before tillage.  For suppression, apply 1 quart of this product, or 1 pint of this product plus 0.5 pound a.i. 2,4-D, in 3 to 10 gallons of water per acre in the late summer or fall after harvest, mowing or tillage. Allow rosette regrowth to a minimum of 6 inches in diameter before treating. Applications can be made as long as leaves are still green and plants are actively growing at the time of application. Allow 3 or more days after the application before tillage.
Timothy	2-3	3-40	2%	For best results, apply when most plants have reached the boot-to-head stage of growth.
Torpedograss	4-5	3-40	2%	For partial control. Apply when most plants are at or beyond the seedhead stage of growth. Repeat applications will be required to maintain control. Fall treatments must be applied before frost.
Trumpetcreeper	2	5-10	2%	Partial control. Apply in late September or October, to plants which are at least 18 inches tall and have been growing 45-60 days since the last tillage operation. Make applications at least 1 week before a killing frost.
Vaseygrass	3-5	3-20	2%	Apply when most plants are in the early head stage.
Velvetgrass	3-5	3-20	2%	Apply when most plants are in the early head stage.
Wheatgrass, western	2-3	3-40	2%	For best results, apply when most plants have reached the boot-to-head stage of growth.

### WOODY BRUSH AND TREES RATE TABLE ALPHABETICALLY BY SPECIES

Apply this product after full leaf expansion, unless otherwise directed. Use the higher rate for larger plants and/or dense areas of growth. On vines, use the higher rate for the plants that have reached the woody stage of growth. Best results are obtained when application is made in late summer or fall after fruit formation.

In arid areas, best results are obtained when applications are made in the spring to early summer when brush species are at high moisture content and are flowering.

Unless otherwise directed, apply broadcast treatments in 3 to 40 gallons of water per acre. Ensure thorough coverage when using hand-held equipment. Symptoms may not appear prior to frost or senescence with fall treatments.

Allow 7 or more days after application before tillage, mowing or removal. Repeat treatments may be necessary to control plants regenerating from underground parts or seed. Some autumn colors on undesirable deciduous species are acceptable provided no major leaf drop has occurred. Reduced performance may result if fall treatments are made following a frost.

<b>Weed Species</b>	<b>Rate (QT/A)</b>	<b>Hand-Held % Solution</b>	<b>Directions</b>
Alder	3-4	1-1.5%	For control
Ash	2-5	1-2%	Partial control
Aspen, quaking	2-3	1-1.5%	For control
Bearmat (Bearclover)	2-5	1-2%	Partial control
Beech	2-5	1-2%	Partial control
Birch	2	1%	For control
Blackberry	3-4	1-1.5%	For control. Make applications after plants have reached full leaf maturity. Best results are obtained when applications are made in late summer or fall. Applications may also be made after leaf drop and until a killing frost or as long as stems are green. After berries have set or dropped in late fall, blackberry can be controlled by applying a 3/4 percent solution of this product. For control of blackberries after leaf drop and until a killing frost or as long as stems are green, apply 3 to 4 quarts of this product in 10 to 40 gallons of water per acre.
Blackgum	2-5	1-2%	For control
Bracken	2-5	1-2%	For control
Broom; French, Scotch	-	1.5-2%	For control
Buckwheat, California	-	1-2%	For partial control. Thorough coverage of foliage is necessary for best results.
Cascara	2-5	1-2%	Partial control
Catsclaw	-	1-1.5%	Partial control
Ceanothus	2-5	1-2%	Partial control
Chamise	-	1%	For control. Thorough coverage of foliage is necessary for best results.
Cherry; bitter, black, pin	2-3	1-1.5%	For control
Coyote brush	-	1.5-2%	For control. Apply when at least 50 percent of the new leaves are fully developed.
Dogwood	2-5	1-2%	Partial control
Elderberry	2	1%	For control
Elm	2-5	1-2%	Partial control
Eucalyptus	-	2%	For control of eucalyptus resprouts, apply when resprouts are 6 to 12 feet tall. Ensure complete coverage. Avoid application to drought-stressed plants.
Florida holly (Brazilian Peppertree)	2-5	1-2%	Partial control
Gorse	2-5	1-2%	Partial control
Hasardia	-	1-2%	Partial control. Thorough coverage of foliage is necessary for best results.
Hawthorn	2-3	1-1.5%	For control
Hazel	2	1%	For control

<b>Weed Species</b>	<b>Rate (QT/A)</b>	<b>Hand-Held % Solution</b>	<b>Directions</b>
Hickory	2-5	1-2%	Partial control
Honeysuckle	3-4	1-1.5%	For control
Hornbeam, American	2-5	1-2%	Partial control
Kudzu	4	2%	For control. Repeat applications may be required to maintain control.
Locust, black	2-4	1-2%	Partial control
Madrone resprouts	-	2%	Partial control. Apply to resprouts that are 3 to 6 feet tall. Best results are obtained with spring/early summer treatments.
Manzanita	2-5	1-2%	Partial control
Maple, red	2-4	1-1.5%	For control, apply a 1 to 1.5 percent solution when at least 50 percent of the new leaves are fully developed. For partial control, apply 2 to 4 quarts of this product per acre.
Maple, sugar	-	1-1.5%	For control. Apply when at least 50 percent of the new leaves are fully developed.
Monkey flower	-	1-2%	Partial control. Thorough coverage of foliage is necessary for best results.
Oak; black, white	2-4	1-2%	Partial control
Oak, post	3-4	1-1.5%	For control
Oak; northern, pin	-	1-1.5%	For control. Apply when at least 50 percent of the new leaves are fully developed.
Oak, southern, red	2-3	1-1.5%	For control
Persimmon	2-5	1-2%	Partial control
Pine	2-5	1-2%	For control
Poison ivy/Poison oak	4-5	2%	For control. Repeat applications may be required to maintain control. Fall treatments must be applied before leaves lose green color.
Poplar, yellow	2-5	1-2%	Partial control
Redbud, eastern	2-5	1-2%	For control
Rose, multiflora	2	1%	For control. Make treatments prior to leaf deterioration by leaf-eating insects.
Russian olive	2-5	1-2%	Partial control
Sage, black	-	1%	For control. Thorough coverage of foliage is necessary for best results.
Sage, white	2-5	1-2%	Partial control
Sage, brush, California	-	1%	For control. Thorough coverage of foliage is necessary for best results.
Salmonberry	2	1%	For control
Salt-cedar	2-5	1-2%	For control
Sassafras	2-5	1-2%	Partial control
Sourwood	2-5	1-2%	Partial control
Sumac; poison, smooth, winged	2-4	1-2%	Partial control
Sweetgum	2-3	1-1.5%	For control
Swordfern	2-5	1-2%	Partial control
Tallowtree, Chinese	-	1%	For control. Thorough coverage of foliage is necessary for best results.
Tan oak resprouts	-	2%	For partial control. Apply to resprouts that are less than 3 to 6 feet tall. Best results are obtained with fall applications.
Thimbleberry	2	1%	For control

Weed Species	Rate (QT/A)	Hand-Held % Solution	Directions
Tobacco, tree	-	1-2%	Partial control
Trumpet creeper	2-3	1-1.5%	For control
Vine maple	2-5	1-2%	Partial control
Virginia creeper	2-5	1-2%	For control
Waxmyrtle, southern	2-5	1-2%	Partial control
Willow	3	1%	For control

## STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Keep container closed to prevent spills and contamination. Store above 10°F (-12°C) to keep product from crystallizing. Crystals will settle to the bottom. If allowed to crystallize, place in a warm room 68°F (20°C) for several days to redissolve and roll or shake container to mix well before using.

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticide disposal or in accordance with applicable Federal, state or local procedures. Emptied container retains vapor and product residue. Observe all labeled safeguards until container is cleaned, reconditioned, or destroyed.

**CONTAINER DISPOSAL:** Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying.

~~[[Nonrefillable ≤ 5 gallons]:~~ Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.]

~~[[Nonrefillable > 5 gallons]:~~ Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one 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, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.]

[For Exterior Carton: Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available, or dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.]

[[For Refillable Containers:] Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.]]

**IMPORTANT: READ BEFORE USE**

Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of [Remedies](#) before using this product.

If terms are not acceptable, return the unopened product container at once. By using this product, user or buyer accepts the following warranty disclaimer, inherent risks of use and limitation of remedies.

**WARRANTY DISCLAIMER**

CropSmart, LLC warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, CROPSMART, LLC MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

**INHERENT RISKS OF USE**

It is impossible to eliminate all risks associated with use of this product. Crop injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label directions (including conditions noted on the label, such as unfavorable temperatures, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of CropSmart, LLC or the seller. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer.

**LIMITATION OF REMEDIES**

To the extent consistent with applicable law, the exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, strict liability, or other legal theories), shall be limited to, at CropSmart, LLC's election, one of the following:

1. Refund of purchase price paid by buyer or user for product bought, or
2. Replacement of amount of product used.

To the extent consistent with applicable law, CropSmart, LLC shall not be liable for losses or damages resulting from handling or use of this product unless CropSmart, LLC is promptly notified of such loss or damage in writing. In no case shall CropSmart, LLC be liable for consequential or incidental damages or losses. The terms of the Warranty Disclaimer above and this Limitation of Remedies cannot be varied by any written or verbal statements or agreements. No employee or sales agent of CropSmart, LLC or the seller is authorized to vary or exceed the terms of the Warranty Disclaimer or this Limitation of Remedies in any manner.

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