

2749-537

6/29/2010

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

OFFICE OF  
CHEMICAL SAFETY AND  
POLLUTION PREVENTION

JUN 29 2010

John F. Wright, Agent  
Aceto Agricultural Chemicals Corporation  
c/o Product & Regulatory Associates, LLC  
P.O. Box 1683  
Voorhees, NJ 08043-9998

Subject: Label Amendment (add use on Roundup Ready alfalfa, RR flex cotton,  
RR sugar beets, oil seed crops, expand use on RR canola)  
Glyphosate IPA 41%  
EPA Reg. No. 2749-537  
Application Dated May 28, 2010

Dear Mr. Wright:

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is acceptable, provided you make the following changes:

1. On page 8, remove the statement "The applicator must be familiar with and take into account..." and the heading "Aerial Drift Reduction Advisory".
2. On pages 37 & 68, change the application rate under *Actively growing alfalfa* from "4 fluid ounces per acre" to "**44 fluid ounces per acre**".
3. On pages 37 & 68, change the application rate under *Dormant alfalfa* to "**44 fluid ounces per acre**".
4. On pages 37 & 68, change the Roundup Ready Canola restriction to "Do not apply more than 2 quarts of this product **per acre** per season for all pre-plant, at-planting..."
5. On pages 39 & 70 under RR Winter Canola *Single Application*, remove "For the control of annual weeds, use 16 to 24 fluid ounces of this product per acre no later than the 6-leaf stage." Also, change the direction to "If more than 24 fluid ounces per acre is applied **before** the 6-leaf stage in the fall, then similar crop injury may result."
6. On pages 46 & 72, change the restriction at the top to "Do not use more than 6 quarts of this product **per acre** for all combined applications from crop emergence to 60% open bolls."

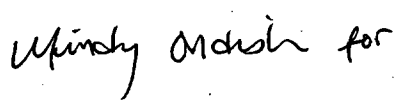
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7. On pages 48 & 73, change the Pre-plant, At-planting, Pre-emergence directions to "Use this product before, during, or after planting Roundup Ready sugar beet." Also, change the Tank Mixture directions to "Apply this product with herbicides listed in this section **prior to emergence to Roundup Ready sugar beet.**"
8. On pages 48 & 73, change the tank mix product name from "Slinger" to "**Stinger**". Also, change the chemical name for "Upbeet" from "trisulfuron-methyl" to "**triflusulfuron-methyl**".
9. On page 64, update the trademark listing to reflect the Roundup Ready tank mix partners referenced.

A stamped copy of your label is enclosed for your records. This label supercedes all previously accepted labels. You must submit one (1) copy of the final printed label before you release the product for shipment. Products shipped after eighteen (18) months from the date of this letter or the next printing of the label, whichever occurs first, must bear the new revised label. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA §6(e). Your release for shipment of the product constitutes acceptance of these conditions.

Sincerely,



Jim Tompkins  
Product Manager 25  
Herbicide Branch  
Registration Division (7505P)

30976

# GLYPHOSATE IPA 41 %

GROUP	9	HERBICIDE
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AVOID HERBICIDE CONTACT WITH FOLIAGE, GREEN STEMS, EXPOSED NON-WOODY ROOTS OR FRUIT OF CROPS, DESIRABLE PLANTS AND TREES BECAUSE SEVERE INJURY OR DESTRUCTION MAY RESULT.

Read the entire label before using this product. Use only according to label instructions.  
Read "WARRANTY DISCLAIMER" and "LIMITATION OF LIABILITY" before buying or using. If terms are not acceptable, return product at once unopened.

### 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 liter or 4 pounds per U.S. gallon of the active ingredient glyphosate, in the form of its isopropylamine salt. Equivalent to 356 grams per liter or 3 pounds per U.S. gallon of the acid, glyphosate.

## 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. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.</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. . <b>FOR MEDICAL EMERGENCIES INVOLVING THIS PRODUCT, CALL CHEMTREC® TOLL FREE 1-800-424-9300 or 1-703-527-3887.</b>	

FOR CHEMICAL SPILL, LEAK, FIRE, EXPOSURE OR MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL CHEMTREC® TOLL FREE 1-800-424-9300 or 1-703-527-3887.

SEE BOOKLET FOR ADDITIONAL PRECAUTIONARY STATEMENTS AND USE DIRECTIONS

EPA Reg. No. 2749-537  
EPA Est. No. XXX

NET CONTENTS: 2.5 Gals. (9.46 Liters)

Manufactured For:  
Aceto Agricultural Chemicals Corporation  
One Hollow Lane  
Lake Success, NY 11042-1215

ACCEPTED  
with COMMENTS  
in EPA Letter Dated

JUN 29 2010

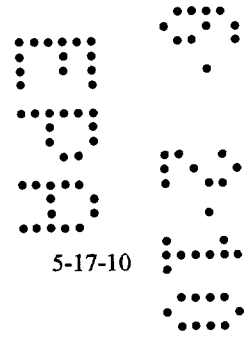
Under the Federal Insecticide,  
Fungicide, and Rodenticide Act  
as amended, for the pesticide  
registered under EPA Reg. No.

2749-537



Aceto Agricultural Chemicals Corporation

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Label Amendment



5-17-10

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**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS AND DOMESTIC ANIMALS  
KEEP OUT OF REACH OF CHILDREN**

**CAUTION**

Causes moderate eye irritation. Do not get in eyes, on skin, or on clothing. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before reuse.

**DOMESTIC ANIMALS:** This product is considered to be relatively non-toxic 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, and shoes plus socks. Follow manufacturer's instructions for cleaning / maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

**Engineering Control Statements:**

When handlers use closed system, 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 immediately if contaminated. Wash thoroughly and put on 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 or rinsate.

**PHYSICAL AND CHEMICAL HAZARDS**

Spray solutions of this product must be mixed, stored and applied using only stainless steel, aluminum, fiberglass, plastic or plastic-lined steel containers.

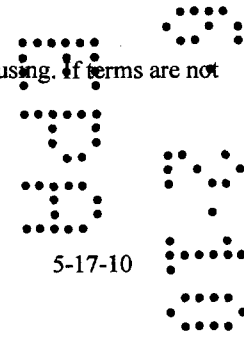
**DO NOT MIX, STORE OR APPLY THIS PRODUCT OR SPRAY SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR SPRAY TANKS.** This product or spray solutions of this product react with such containers and tanks to produce hydrogen gas which may form a highly 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 instructions.

Read "WARRANTY DISCLAIMER" and "LIMITATION OF LIABILITY" before buying or using. If terms are not acceptable, return product at once unopened.

**DIRECTIONS FOR USE**

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



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

**AGRICULTURAL USE REQUIREMENTS**

Use this product only in accordance with its labeling and 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, chemical-resistant gloves such as butyl rubber, natural rubber, neoprene rubber, or nitrile rubber ≥ 14 mils, and shoes plus socks.

**NON-AGRICULTURAL USE REQUIREMENTS**

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

**PRODUCT INFORMATION**

**Product Description:** This product is a post-emergent, systemic herbicide with no soil residue 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 surfactant, additives containing surfactant, buffering agents or pH adjusting agents are needed or suggested. 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 instructions. Do not add surfactants, additives containing surfactants, buffering agents or pH adjusting agents to the spray solution when Glyphosate IPA 41% is the only pesticide used. Ammonium Sulfate may be used. See the "MIXING" section of this label for instructions.

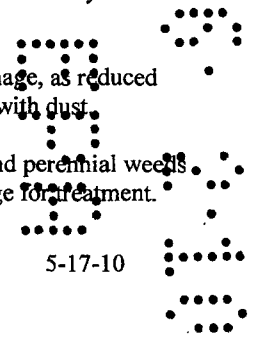
**Time to Symptoms:** This product moves through the plant from the point of foliage contact to and into the root system. Visible effects on most annual weeds occur within 2 to 4 days, but on most perennial weeds may not occur for 7 days or more. Extremely cool or cloudy weather following treatment may slow activity of this product and delay development of visible symptoms. Visible effects are a gradual wilting and yellowing of the plant which advances to complete browning of above-ground 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 use rates 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 (non-cultivated) 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 and 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 or irrigation 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 must 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 the 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:** To improve this product's effectiveness, apply in combination with other pesticide products that are registered for the same crop and application techniques. This product does not provide residual weed control. For subsequent residual weed control, follow a label-approved herbicide program. A list of potential herbicide tank mixture partners is provided in the use direction section under each crop. This list is an example of products used but is not an all inclusive list. For current information on the best tank mixture partner in your area, consult with the local dealer, distributor or State Agricultural Extension service.

**Refer to the partner product label for important information in regards to the use instructions, spray additive requirements, weeds controlled, the size range of weeds that should be treated, and application restrictions including pre-harvest intervals and crop rotation information.**

**Follow the specifications listed on the most restrictive label when planning and applying the tank mixture combination.**

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 specified in this labeling. 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 the crop section of this label, the combined total of all treatments must not exceed 8 quarts of this product per acre per year. For applications in non-crop sites or in tree, vine, or shrub crops, 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.

**For Glyphosate Weed Resistance Management:** Glyphosate, the active ingredient in this product, is a Group 9 herbicide. Target site resistance to Group 9 herbicides is rare. Although rare in occurrence, 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.

Weed resistance management specifications specified for Group 9 herbicides are:

- Ensure optimum weed control by making applications at the right time (correct weed size) and utilizing the specified label rate for the most difficult to control weed in your field.
- Base decisions on local needs and use the tool(s) necessary to obtain optimum weed control and minimize weed escapes.
- Avoid tank mixtures that reduce this product's efficacy (through antagonism) or which encourage rates of this product below the label specifications.
- Scout treated weed populations for escapes 2 to 4 weeks after application.
- Report any incidence of repeated non-performance of this product on a particular weed to the local retailer or county extension agent.

**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 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:**

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

Mix labeled tank mixtures of this product 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. If a nonionic surfactant is used, add it to the spray tank before completing the filling process.
9. Add individual formulations to the spray tank as follows: wettable powder, flowable, emulsifiable concentrate, drift control additive, 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 a by-pass line on or near the bottom of the tank to minimize foaming. Screen size in nozzle or line strainers must be no finer than 50 mesh.

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:

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**Spray Solution**

Desired Volume	Amount of Glyphosate IPA 41%					
	½ %	1 %	1 ½ %	2 %	5 %	10 %
<b>1 Gallon</b>	⅔ oz.	1 ⅓ oz.	2 oz.	2 ⅔ oz.	6 ½ oz.	13 oz.
<b>25 Gallon</b>	1 pt.	1 qt.	1 ½ qt.	2 qt.	5 qt.	10 qt.
<b>100 Gallon</b>	2 qt.	1 gal.	1 ½ 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 large container. Fill sprayer with the mixed solution.

**Surfactants**

Nonionic surfactants (NIS) or wetting agents that have at least 70 percent active ingredient and are labeled for use with herbicides may be added to the spray solution. Do not reduce rates of this herbicide when adding surfactants. Read and carefully observe precautionary statements and other information appearing on the additives label.

**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 under hard water conditions, drought conditions or 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 dry 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 specifications.

**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 precautionary statements and all other information appearing on the additive label. 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 spray onto weed foliage.



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\* THIS PRODUCT IS NOT REGISTERED IN CALIFORNIA OR ARIZONA FOR USE IN MISTBLOWERS.

**Selective Equipment** – Recirculating sprayers, shielded and hooded sprayers, wiper applicators and sponge bars.

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

**Controlled Droplet Applicators (CDA)** – Hand-held or boom-mounted applicators that 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.

#### **AERIAL EQUIPMENT**

DO NOT APPLY THIS PRODUCT USING AERIAL SPRAY EQUIPMENT EXCEPT UNDER CONDITIONS AS SPECIFIED WITHIN THIS LABEL.

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. Refer to the individual use area sections of this label for specified volumes and application rates.

For aerial application in California and Fresno County California, refer to the “FOR AERIAL APPLICATION IN CALIFORNIA ONLY” and “FOR AERIAL APPLICATION IN FRESNO COUNTY CALIFORNIA ONLY” sections of this label for specific instructions, restrictions and requirements.

THIS PRODUCT PLUS DICAMBA TANK MIXTURES MAY NOT BE APPLIED BY AIR IN CALIFORNIA.

For aerial application in Arkansas, refer to the “FOR AERIAL APPLICATION IN ARKANSAS ONLY” section of this label for specific instructions, restrictions and requirements.

Avoid direct application to any body of water.

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

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

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

DRIFT MAY CAUSE DAMAGE TO ANY OTHER VEGETATION CONTACTED TO WHICH TREATMENT IS NOT INTENDED. TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION, APPROPRIATE BUFFER ZONES MUST BE MAINTAINED.

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 and the grower are responsible for considering all these factors when making decisions.

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

1. The distance of the outer most nozzles on the boom must not exceed  $\frac{3}{4}$  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.

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

### Aerial Drift Reduction Advisory

#### **Importance of 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 Inversion").

#### **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 – Use the lower spray pressures listed for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- Number of Nozzles – Use the minimum number of nozzles that provide uniform coverage.
- Nozzle Orientation – Orienting nozzles so that the spray is released backwards, parallel to the airstream, will produce larger droplets than other orientations. Significant deflection from the horizontal will reduce droplet size and increase drift potential.
- Nozzle Type – Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce larger droplets than other nozzle types.
- Boom Length – For some use patterns, reducing the effective boom length to less than  $\frac{3}{4}$  of the wingspan or rotor length may further reduce drift without reducing swath width.
- Application – Applications must not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

#### **Swath Adjustment**

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

#### **Wind**

Drift potential is lowest between wind speeds of 2 to 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application 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 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 Inversion**

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 temperature 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 move upwards 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).

**FOR AERIAL APPLICATION IN CALIFORNIA ONLY****Directions for Use**

This label must be in the possession of the user at the time of the herbicide application.

See "PRODUCT INFORMATION" and "MIXING" sections of this label for essential product performance information.

See the appropriate section of this label for specific specifications on the use of this product in individual crops.

**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 SEVERE DAMAGE OR DESTRUCTION MAY RESULT.**

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<sup>®</sup> corn and cotton.
4. Pre-harvest in alfalfa, corn, cotton, wheat, Roundup Ready corn, and Roundup Ready cotton.

Do not plant subsequent crops other than those listed in this product label 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.

When applied as directed, under the conditions described, this product controls annual and perennial weeds listed in this label.

**DO NOT EXCEED A MAXIMUM RATE OF 2 QUARTS PER ACRE OF THIS PRODUCT WHEN MAKING APPLICATIONS BY AIR IN COTTON AND ROUNDUP READY COTTON PRIOR TO HARVEST, 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, WHEAT, AND ROUNDUP READY CORN 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.

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 disposing of equipment washwaters.

**AVOID DRIFT – DO NOT APPLY WHEN WINDS ARE GUSTY OR UNDER ANY OTHER CONDITION WHICH FAVORS DRIFT. DRIFT MAY CAUSE DAMAGE TO ANY VEGETATION CONTACTED TO WHICH TREATMENT IS NOT INTENDED. TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION, APPROPRIATE BUFFER ZONES MUST BE MAINTAINED.**

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 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.

Coarse sprays are less likely to drift; therefore, do not use nozzles or nozzle configurations that dispense spray as fine spray droplets. Do not angle nozzles forward into the airstream and do not increase spray volume by increasing nozzle pressure.

Drift control additives may be used. When a drift control additive is used, read and carefully observe the precautionary statements and all other information appearing on the additive label.

**Ensure Uniform Application** - To avoid streaking, uneven or overlapped application, use appropriate marking devices.

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 GEAR IS THE MOST SUSCEPTIBLE.** The maintenance of an organic coating (paint) which meets aerospace specification MIL-C-38413 may prevent corrosion.

**FOR AERIAL APPLICATION IN FRESNO COUNTY, CALIFORNIA ONLY  
From February 15 through March 31 Only**

**Directions For Use**

This label must be in the possession of the user at the time of the herbicide application.

**EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF THE SPRAY WITH FOLIAGE, GREEN STEMS, EXPOSED NON-WOODY ROOTS OR FRUIT OF DESIRABLE CROPS, PLANTS, TREES OR OTHER DESIRABLE VEGETATION, SINCE SEVERE DAMAGE OR DESTRUCTION MAY RESULT.**

See "PRODUCT INFORMATION" and "MIXING" sections of this label for essential product information.

**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

**Product information**

Always read and follow the label direction 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.

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**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 aircrafts 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 ensure 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 rate 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. Coarse droplets in the 300 to 500 (VMD) micron range are suggested.

Applications should typically 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 for aircraft safety. The distance of 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 airstream 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.

**FOR AERIAL APPLICATIONS IN ARKANSAS, LOUISIANA, MISSISSIPPI, MISSOURI, AND TENNESSEE ONLY**

This product controls annual and perennial weeds listed on this label prior to planting or emergence of corn, cotton, rice, sorghum and soybeans; prior to the harvest of cotton and soybeans; and following the harvest of any crop in the fall via aerial applications in these locations.

Aerial applications of this product may be made in fallow systems and conventional, reduced and zero tillage

systems. For applications via aerial equipment, use the specified rates of this product in 3 to 10 gallons of water per acre. Do not exceed a rate of 3 quarts per acre.

The likelihood of injury occurring from the use of this product is greatest when winds are gusty or in excess of 5 miles per hour or when other conditions, including lesser velocities, will allow spray drift to occur.

**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 must 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 must be uniform and complete. Do not spray to the point of runoff. Use coarse sprays only.

For specified rates and timing, refer to the "Annual Weeds – Hand-Held and High-Volume Equipment" section of this product label.

**SELECTIVE EQUIPMENT**

This product may be applied through recirculating spray systems, shielded applicators, hooded sprayers, wiper applicators or sponge bars, after dilution and thorough mixing with water, to listed weeds growing in any non-crop 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 specified 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. Applicators used above desirable vegetation must be adjusted 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.

Applications made above the crops must be made 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 height of the weeds varies so that not all weeds are contacted. In these instances, repeat treatments may be necessary.

**Recirculating Spray System**

A recirculating spray system directs the spray solution onto weeds growing above desirable vegetation, while spray solution not intercepted by weeds is collected and returned to the spray tank for reuse.

**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. 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 is suggested. Spray volume must be 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 skimming 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 mph to avoid bouncing of the spray hoods.
- Maximum wind speed: 10 mph.
- 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.

#### **Wiper Applicators**

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% solution. Apply this solution to weeds listed in this section.

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

When applied as specified, this product **CONTROLS** the following weeds:

Corn, volunteer*	Sicklepod
Panicum, Texas	Spanishneedles
Rye, common	Starbur, bristly
Shattercane	

When applied as specified, this product **SUPPRESSES** the following weeds:

Beggarweed, Florida	Ragweed, common
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Bermudagrass	Ragweed, giant
Dogbane, hemp	Smutgrass
Dogfennel	Sunflower
Guineagrass	Thistle, Canada
Johnsongrass	Thistle, musk
Milkweed	Vaseygrass
Nightshade, silverleaf	Velvetleaf
Pigweed, redroot	

\* Except volunteer Roundup Ready Corn.

**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.

**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 2 to 15 gallons of water per acre.

For the control of annual weeds with hand-held CDA units, apply a 20% 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% 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 that 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.

**ANNUAL AND PERENNIAL CROPS (Alphabetical)**

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

See the "ROUNDUP READY CROPS" section of this label for instructions for treating Roundup Ready crops.

**Types of applications:** Chemical fallow, pre-plant fallow beds, pre-plant, pre-emergence, at-planting, Selective equipment in row middles (hooded or shielded sprayers, or wiper applicators), and post-harvest treatments.

**Use Instructions:**

Apply this product during fallow intervals preceding planting, prior to planting or transplanting, at-planting, or pre-emergent to annual and perennial crops listed in this label, except where specifically limited. For any crop not listed in 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 the annual, perennial and woody brush 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 unmulched 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, 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. 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. Broadcast applications made at emergence will result in injury or death to emerged seedlings. Apply before seed germination in coarse sandy soils to further minimize the risk of injury. Unless otherwise specified on 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.

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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**Asparagus**

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**Types of applications:** Those listed in the "ANNUAL AND PERENNIAL CROPS" section of this label plus the following: weed control, site preparation, spot treatment.

**Weed Control, Site Preparation**

Use instructions: This product may be applied prior to planting or transplanting asparagus.

Precautions, restrictions: Do not apply within a week before the first asparagus spears emerge.

**Spot Treatment**

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

Precautions, 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**

Use instructions: This product may be applied after the last harvest and all spears have been removed. If spears are allowed to regrow, delay application until ferns have developed. Delayed treatments must be applied as a directed or shielded spray in order to avoid contact of the spray with ferns, stems or spears.

Precautions, restrictions: Direct contact of the spray with the asparagus may result in serious crop injury. 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.

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**Cereal and Grain Crops**

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**Labeled crops:** Barley, buckwheat, millet (pearl, proso), oats, rice, teosinte, triticale, wheat (all types), wild rice.

**Types of applications:** Those listed in the "ANNUAL AND PERENNIAL CROPS" section of this label plus the following: Red rice control prior to planting rice, spot treatment (except rice), wiper applicators over-the-top (wheat and feed barley only), pre-harvest (wheat and feed barley only), for barnyardgrass control (*Echinochloa crus-galli*) in rice using renovation treatments in California only.

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

**Pre-plant, Pre-emergence and At-planting**

Use instructions: This product may be applied before, during or after planting of cereal crops. Applications must be made prior to emergence of the crop.

**Red Rice Control Prior to Planting Rice**

Use instructions: 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 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 be only partially controlled.

Precautions, restrictions: Avoid spraying during low humidity conditions, as reduced control may result. DO NOT TREAT RICE FIELDS OR LEVEES WHEN THE FIELDS CONTAIN FLOODWATER. DO NOT RE-FLOOD TREATED FIELDS FOR 8 DAYS FOLLOWING APPLICATION.

**Spot Treatment (except rice)**

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

Precautions, restrictions: Do not treat more than 10% of the total field area to be harvested. The crop receiving spray in the treated area will be killed. Take care to avoid drift or spray outside the target area for the same reason.

**Wiper Applications (wheat and feed barley only)**

Use instructions: Wiper applications may be used in wheat or feed barley. 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.

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

**Pre-harvest (wheat and feed barley only)**

Use instructions: This product provides weed control when applied prior to the harvest of wheat and feed barley. For wheat, apply after the hard-dough stage of grain (30% or less grain moisture). For feed barley, apply after the hard-dough stage and when the grain contains 20 % moisture or less. 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.

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

**Post-harvest**

Use instructions: This product may be applied after harvest of cereal crops. 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.

Precautions, 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.

**South Dakota Only**

**For non-selective control of listed annual weeds in small grain cropping systems**

Use instructions: For ground applications, use 3 to 5 gallons of water per acre. For aerial applications, use 2 to 3 gallons of water per acre.

Precautions, restrictions: The likelihood of injury occurring from the use of this product is greatest when winds are gusty or in excess of 5 miles per hour, or when other conditions, including lesser wind velocities, will allow spray drift to occur. Adjust boom height on ground equipment to prevent streaked, overlapped, or uneven applications. Avoid spraying when weeds are subject to moisture stress, when dust is on foliage, or when straw canopy covers the weeds.

**California Only****Barnyardgrass control (*Echinochloa crus-galli*) in rice using renovation treatments**

**Use instructions:** This product may be applied as a renovation treatment in rice crops to control barnyardgrass infestations using ground broadcast spray or hand-held equipment. Renovation is defined as herbicide treatment that will produce crop and weed destruction in an entire field or contiguous area treated within a field. Follow the application methods and specified treatment rates in this label.

**Precautions, restrictions:** The crop receiving spray in the treated area will be killed. Take care to avoid drift or spray outside target area for the same reason. The rice straw and stubble from the treated area, including a 25-foot buffer zone on all sides, shall not be used for grazing, animal bedding or any feed purposes.

No aerial applications are permitted for rice renovation.

**Corn**

**Types of corn:** Field corn, seed corn, sweet corn and popcorn.

**Types of applications:** Those listed in the "ANNUAL AND PERENNIAL CROPS" section of this label plus the following: Spot treatment, pre-harvest.

For Roundup Ready corn, see the "ROUNDUP READY CROPS" section of this label.

**Pre-plant, Pre-emergence and At-planting**

**Use instructions:** This product may be applied alone or in a tank mixture before, during or after planting corn. Applications must be made prior to emergence of the crop.

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.

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

2,4-D	DUAL® MAGNUM®	LASSO® / ALACHLOR
ATRAZINE	DUAL II MAGNUM®	LINEX® / LOROX®
AXIOM®	CHARGER MAX®	MARKSMAN®
BALANCE®	EPIC®	MICRO-TECH®
BANVEL® / CLARITY®	FRONTIER® / OUTLOOK®	PROWL®
BICEP MAGNUM®	FULTIME®	PYTHON®
BICEP II MAGNUM®	GUARDSMAN® / LEADOFF®	SIMAZINE
BULLET®	HARNESS®	SURPASS®
DEGREE®	HARNESS® XTRA	SURPASS® 100
DEGREE® XTRA	HARNESS® XTRA 5.6L	TOPNOTCH®
DISTINCT®	LARIAT®	

For improved burndown, this product may be tank mixed with 2,4-D or dicamba.

**Annual weeds:** 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. When using nitrogen solutions as the carrier, use rate may need to be increased for acceptable weed control.

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

For southern states, do not apply in 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 specification 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.

THE TANK MIX SPECIFICATIONS IN THIS SECTION ARE NOT REGISTERED IN CALIFORNIA.

#### **Hooded Sprayers**

Use instructions: This product may be used through hooded sprayers for weed control between the rows of corn (all), including field corn, sweet corn and popcorn. Only hooded sprayers that completely enclose the spray pattern may be used. See additional instruction for the use of hooded sprayers in the "SELECTIVE EQUIPMENT" section of this label.

Precautions, restrictions: Corn must be at least 12 inches tall, measured without extending leaves. 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. 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.

#### **Spot Treatment**

Use instructions: For spot treatments, apply this product prior to silking of corn.

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

#### **Pre-harvest**

Use instructions: Make applications at 35% 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, restrictions: Pre-harvest application is not suggested for corn grown for seed, as a reduction in germination or vigor may occur. Allow a minimum of 7 days between application and harvest.

#### **Post-harvest**

Use instructions: This product may be applied after harvest of corn. 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.

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

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### **Cotton**

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**Types of applications:** Those listed in the "ANNUAL AND PERENNIAL CROPS" section of this label plus the following: Selective equipment, spot treatment, pre-harvest.

For Roundup Ready cotton, see the "ROUNDUP READY CROPS" section of this label.

#### **Pre-plant, Pre-emergence, and At-planting**

Use instructions: This product may be applied before, during or after planting cotton. Applications must be made prior to emergence of the crop.

#### **Hooded Sprayer, Selective Equipment**

Use instructions: This product may be applied through hooded sprayers, recirculating sprayers, shielded applicators or wiper applicators in cotton. Allow at least 7 days between application and harvest.

Precautions, 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.

#### **Spot Treatment**

Use instructions: For spot treatments, apply this product prior to boll opening of cotton.

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

#### **Pre-harvest**

Use instructions: 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 of this label. For cotton regrowth inhibition, apply 1 pint to 2 quarts of this product per acre.

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.

This product may be tank mixed with DEF<sup>®</sup> 6, Folex<sup>®</sup>, Ginstar<sup>®</sup> or Prep<sup>™</sup> to provide additional enhancement of cotton leaf drop.

**Precautions, restrictions:** Allow a minimum of 7 days between application and harvest of cotton. Pre-harvest application is not suggested for cotton grown for seed, as a reduction in germination or vigor may occur. THE USE OF ADDITIVES FOR PRE-HARVEST APPLICATION OF THIS PRODUCT TO COTTON IS PROHIBITED.

### Fallow Systems

**Types of applications:** Chemical fallow, pre-plant fallow beds, aid-to-tillage.

#### Chemical Fallow

**Use instructions:** 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.

**Precautions, 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 specific product labels for crop rotation restrictions and precautionary statements of all products used in tank mixtures. Some crop injury may occur if dicamba is applied within 45 days of planting.

#### Pre-plant Fallow Beds

**Use instructions:** This product may be applied to fallow beds prior to planting or emergence of any crop listed on this label. For any crop not listed on this label, applications must be made at least 30 days prior to planting. This product will control weeds listed in the annual, perennial and woody brush tables of this label.

In addition, 12 fluid ounces of this product plus 2 to 3 ounces of Goal<sup>®</sup> 2XL per acre will control the following weeds with the maximum height or length indicated: 3" – common cheeseweed, chickweed, groundsel; 6" – London rocket, shepherd's purse.

16 fluid ounces of this product plus 2 to 3 ounces of Goal<sup>®</sup> 2XL per acre will control the following weeds with the maximum height or length indicated: 6" – common cheeseweed, groundsel, maretail (*Conyza canadensis*), 12" – chickweed, London rocket, shepherd's purse.

#### Aid-to-Tillage

**Use instructions:** This product may be used in conjunction with tillage practices in fallow systems or pre-plant 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. Allow at least 1 day after application before tillage.

**Precautions, restrictions:** Tank mixtures with residual herbicides may result in reduced performance.

### Grain Sorghum (Milo)

**Type of applications:** Those listed in the "ANNUAL AND PERENNIAL CROPS" section of this label plus the following: Spot treatment, over-the-top wiper applicators, pre-harvest.

**Pre-plant, Pre-emergence, At-planting**

Use instructions: This product may be applied alone or in a tank mixture before, during or after planting grain sorghum. Applications must be made prior to emergence of the crop.

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®  
CHARGER MAX®

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.

**Spot Treatment and Over-the-top Wiper Applications**

Use instructions: 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.

Precautions, restrictions: 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. Take care to avoid drift or spray outside target area for the same reason.

For wiper applicators, allow at least 40 days between application and harvest. Do not use roller applicators. Do not feed or graze treated milo fodder. Do not ensile treated vegetation.

**Hooded Sprayers**

Use instructions: 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 instruction for the use of hooded sprayers in the "SELECTIVE EQUIPMENT" 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 discoloration, stunting or destruction.

Precautions, restrictions: Milo must be at least 12 inches tall, measured without extending leaves. 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. 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 per year for hooded sprayer applications.

**Pre-harvest**

Use instructions: Make applications at 30% grain moisture or less.

Precautions, restrictions: Do not apply more than 2 quarts of this product per acre. As with other herbicides that cause sudden plant death, avoid pre-harvest applications of this product to milo infected with charcoal rot as lodging can occur. Allow a minimum of 7 days between application and harvest of sorghum. Pre-harvest application is not suggested for sorghum grown for seed, as a reduction in germination or vigor may occur. The use of this product for pre-harvest grain sorghum (milo) is not registered in California.

**Post-harvest**

Use instructions: This product may be applied after harvest of grain sorghum. 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.

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.

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

**Herbs**

**Labeled crops:** Peppermint, spearmint.

**Types of applications:** Those listed in the "ANNUAL AND PERENNIAL CROPS" section of this label plus the following: Over-the-top wiper application, and spot treatment.

**Over-the-top Wiper Applicators or Spot Treatments**

**Use instructions:** This product may be used as a spot treatment or wiper application in spearmint and peppermint. Apply spot treatments on a spray-to-wet basis with hand-held equipment, such as backpack and knapsack sprayers, pump-up pressure sprayers, handguns, handwands or any other hand-held or motorized spray equipment used to direct the spray solution onto a limited area. In wiper applications, the applicator **must** be adjusted so that the wiper contact point is at least 2 inches above the crop. Weeds **must** be a minimum of 6 inches taller than the crop.

**Precautions, restrictions:** Allow at least 7 days between application and harvest. Further applications may be made in the same area at 30-day intervals. In spot treatment applications, no more than 10 percent of the total field area to be harvested is to 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. In wiper applications, contact of the herbicide solution with the crop may result in damage or destruction.

**Oil Seed Crops**

Crop	LIMITATIONS	
<b>Oil Seed Crops:</b> Borage, Buffalo gourd (seed), Canola, Crambe, Flax, Jojoba, Lesquerella, Meadowfoam, Mustard (seed), Rape, Safflower, Sesame, Sunflower	For Roundup Ready canola, refer to the Round Ready Crop section. Utilize the annual maximum use rate in the "PRODUCT INFORMATION" section except for the canola, safflower and sunflower which are provided in the table for this section. For pre-harvest (safflower and sunflower) and post-harvest applications: <ul style="list-style-type: none"> <li>• After treatment, allow a minimum of 7 days before harvest or livestock feeding.</li> <li>• Do not plant any crop not listed on this label for at least 30 days after application.</li> </ul>	
<b>Types of applications:</b> Chemical fallow, pre-plant fallow beds, pre-plant, pre-emergence, at-planting, selective equipment in row middles (hooded or shielded sprayers, or wiper applicators), post-harvest treatments and pre-harvest for safflower and sunflower only.		
<b>Crop</b>	<b>Maximum Applications Rates</b>	<b>Rate qts./Acre</b>
Canola	Combined total for all pre-emergence and shielded sprayer applications.	2
Safflower	Combined total for all pre-emergence and shielded sprayer applications.	3
	Pre-harvest application.	3
Sunflower	Combined total for all pre-emergence and shielded sprayer applications.	1
	Pre-harvest application.	1
<b>Pre-plant, At-planting, Pre-emergence:</b> Use this product before, during or after planting oil seed crops listed in this section. For canola, safflower and sunflower follow the maximum application rates listed in the table for this section. <b>Tank Mixture Partner:</b> Apply with pendimethalin (Prowl) for sunflowers before, during or after planting into conventionally		

tilled soil, a cover crop, established sod or previous crop residue.

**Selective Equipment:** Apply this product using a wiper applicator or shielded sprayer in-between the rows once the crop is established. Refer to additional instructions on the use of wiper applicators and hooded sprayers in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label. For canola, safflower and sunflower follow the maximum application rates listed in the table for this section.

**Pre-harvest (Safflower and Sunflower Only):** When applied to a physiologically mature crop of safflower and sunflower prior to harvest, this product provides weed control as a harvest aid. Apply a maximum of 3 quarts of this product per acre for safflower when seed has lost its opaque character, approximately 20 to 30 days after the end of flowering of the secondary branches. Apply a maximum of 1 quart of this product per acre for sunflower when the backsides of sunflower heads are yellow and bracts are turning brown, and seed moisture content is less than 35 percent.

**Post-Harvest:** Apply this product for weed control after harvest of oil seed crops. Use higher rates to control large weeds growing in the crop at the time of harvest.

**Tank Mixture Partners:** Apply with 2,4-D or dicamba.

### Peanuts

**Types of applications:** Those listed in the "ANNUAL AND PERENNIAL CROPS" section of this label plus the following: weed control, site preparation

#### Weed Control, Site Preparation

**Use instructions:** This product may be applied for weed control or for site preparation prior to planting or transplanting peanuts.

### Pineapple

**Types of applications:** Those listed in the "ANNUAL AND PERENNIAL CROPS" section of this label plus the following: weed control, site preparation

#### Weed Control, Site Preparation

**Use instructions:** This product may be applied for weed control or for site preparation prior to planting or transplanting pineapples.

**Precautions, restrictions:** Do not feed or graze treated pineapple forage following application.

### Soybeans

**Types of applications:** Those listed in the "ANNUAL AND PERENNIAL CROPS" section of this label plus the following: Spot treatment, pre-harvest, and selective equipment.

For Roundup Ready soybeans, see the "ROUNDUP READY CROPS" section of this label.

#### Pre-plant, At-planting and Pre-emergence

**Use instructions:** This product may be applied alone or in a tank mixture before, during or after planting soybeans. Applications must be made prior to emergence of the crop.

Apply the following tank mixtures in 10 to 20 gallons of water per acre:

AIM®	DUAL® MAGNUM®	LOROX PLUS®
AMPLIFY™	DUAL II MAGNUM®	PROWL®
ASSURE® II	FIRSTRATE®	PURSUIT®
AUTHORITY®	FLEXSTAR®	PURSUIT® PLUS
BOUNDARY®	FRONTIER® / OUTLOOK®	REFLEX®
CANOPY®	FUSION®	SCEPTER®
CANOPY XL®	GAUNTLET™	SENCOR®
COMMAND®	LASSO® / ALACHLOR	SQUADRON®



COMMAND® XTRA  
DOMAIN®  
CHARGER MAX®

LINEX®  
LOROX® / LINURON

STEEL®  
VALOR®

For improved burndown, 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.

Annual weeds: 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.

Precautions, restrictions: THE TANK MIX SPECIFICATIONS IN THIS SECTION ARE NOT REGISTERED IN CALIFORNIA.

**Spot Treatment**

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

Precautions, restrictions: Do not treat more than 10% of the total field area to be harvested. The crop receiving spray in the treated area will be killed. Take care to avoid drift or spray outside target area for the same reason.

**Pre-harvest**

Use instructions: This product provides weed control when applied prior to harvest of soybeans.

Apply at rates given in the annual, perennial and woody brush and trees rate tables. This product may be applied using either aerial or ground spray equipment. Apply after pods have set and lost all green color. Care must be taken to avoid excessive seed shatter loss due to ground application equipment.

Precautions, 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 pre-harvest application. (If the application rate is 1 quart per acre or lower, the grazing restriction is reduced to 14 days after last pre-harvest application.) Pre-harvest application is not suggested for soybeans grown for seed as a reduction in germination or vigor may occur.

**Selective Equipment**

Use instructions: This product may be applied through recirculating sprayers, shielded applicators, hooded sprayers, wiper applicators or sponge bars in soybeans. Allow at least 7 days between application and harvest.

Precautions, 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.

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**Sugarcane**

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**Types of applications:** Those listed in the "ANNUAL AND PERENNIAL CROPS" section of this label plus the following: Spot treatment.

**Pre-plant, At-planting and Pre-emergence**

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

Precautions, restrictions: Do not apply to vegetation in or around ditches, canals or ponds containing water to be used for irrigation.

**Spot Treatment**

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

Precautions, restrictions: Avoid spray contact with healthy cane plants since severe damage or destruction may

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result. Do not feed or graze treated sugarcane foliage following application.

**Fallow Treatments**

Use instructions: 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. Allow 7 or more days after application before tillage. 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.

**Hooded Sprayers**

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

Precautions, restrictions: Do not allow treated weeds to come in contact with the crop. 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.

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**Sunflowers**

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**Types of applications:** Those listed in the "ANNUAL AND PERENNIAL CROPS" section of this label.

Use instructions: This product may be applied before, during or after planting sunflowers. Applications must be made prior to the emergence of the crop.

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.

Precautions, restrictions: Do not apply more than 1 quart of this product per acre for sunflowers. Make only one pre-plant or pre-emergent application per year. Do not feed or graze sunflower forage following application of this product.

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**Vegetable Crops**

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**Labeled crops:** Amaranth, arugula, artichoke (Jerusalem), beans (all), beet greens, garden beets, broccoli (all), Brussels sprouts, cabbage (all), cabbage (Chinese), cantaloupe, cardoon, cavalo broccolo, carrot, cauliflower, casaba melon, celery, celery (Chinese), celeriac, celtuce, chard (Swiss), chayote, chervil, chick peas, chicory, chrysanthemum, collards, corn salad, crenshaw melon, cress, cucumber, dandelion, dock (sorrel), eggplant, endive, fennel (Florence), garlic, gherkin, ginseng, gourds, ground cherry, guar, honeydew melon, honey ball melon, horseradish, kale, kohlrabi, leek, lentils, lettuce, mango melon, melons (all), mizuna, muskmelon, mustard greens, okra, onion, oriental radish, parsley, parsnips, peas (all), pepinos, pepper (all), Persian melon, potato (Irish), pumpkin, purslane, radish, rape greens, rhubarb, rutabaga, salsify, shallot, spinach (all), mustard spinach, squash (summer, winter), sugar beets, sweet potato, tomatillo, tomato, turnip, watercress, watermelon, yams.

**Types of applications:** Chemical fallow, pre-plant fallow beds, pre-plant, pre-emergence, prior to transplanting vegetables, at-planting, selective equipment in row middles (hooded or shielded sprayers, or wiper applicators), directed applications (in non-bearing ginseng), over-the-top wipers (rutabagas only).

Precautions, restrictions: 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 can cause crop injury, from the plastic prior to transplanting. Residues must be removed by a single 0.5 inch application of water, either by natural rainfall event or via a sprinkler system. Applications made at emergence will result in injury or death to emerged seedlings.

For the following crops, apply only prior to planting. Allow at least 3 days between application and planting of cantaloupe, casaba melon, crenshaw melon, cucumber, eggplant, garlic, gherkin, gourds, ground cherry, honeydew melon, honey ball melon, mango melon, melons (all), muskmelon, pepper (all), Persian melon, pumpkin, squash

(summer, winter), tomatillo, tomato, watercress, and watermelon.

**Non-bearing ginseng:** This product may be used for weed control in established non-bearing ginseng. Direct applications so that there is no contact of this product with the ginseng plant. Applications may be made with boom equipment, CDA, shielded sprayers, hand-held and high-volume wands, lances, orchard guns or with wiper application equipment. Applications must be made at least one year prior to harvest. 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.

Wiper applicators may be used over-the-top in rutabagas. Allow at least 14 days between application and harvest.

### **TREE, VINE AND SHRUB CROPS (Alphabetical)**

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

**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 bushes), selective equipment such as shielded sprayers and wiper treatments (except kiwi), perennial grass suppression, directed sprays, spot treatments, 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 Instructions:**

This product may be applied in middles, strips or for weed control in established citrus groves, tree fruit and tree nut groves, orchards, berries and vineyards. It may also be used for site preparation prior to planting or transplanting of these crops. Apply 1 pint to 5 quarts per acre according to the "ANNUAL WEEDS RATE TABLE" and "PERENNIAL WEEDS RATE TABLE" 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 this 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, Restrictions:**

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. Only shielded or directed sprayers may be used in crops with potential for crop contact, and then only where there is sufficient clearance. For applications in strips (within rows of trees), only selective equipment (directed sprays, hooded sprayers, shielded applicators, or wipers) must be used to minimize the potential for leakage or drift of herbicide sprays onto crops. For berry crops, hooded or shielded sprayers must be fully enclosed including top, sides, front and back. Only wiper or shielded applicators capable of preventing all contact with crop may be used. See "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for additional directions and precautions.

Allow a minimum of 3 days between application and transplanting.

**Middles (between rows)**

Use instructions: 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.

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Reduced control may result if weeds have been mowed prior to application.

**Tank mixtures:** A tank mixture of this product plus Goal® 2XL may be used for annual weeds in middles between rows of citrus crops, tree fruits, tree nuts and vine crops. This mixture is suggested when weeds are stressed or growing in dense populations. 16 to 32 oz./A of this product plus 3 to 12 oz./A 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 (*Coryza canadensis*), stinging nettle and common purslane (suppression). 16 to 32 oz./A of this product plus 3 to 12 oz./A of Goal 2XL will control common cheeseweed (malva) or hairy fleabane (*Coryza bonariensis*) with a maximum height or diameter of 3 inches.

**Strips (in rows)**

**Use instructions:** This product may be applied in rows of tree or vine crops and may also be tank mixed with the following products:

DEVIRINOL® 50 DF	PRINCEP® CALIBER® 90
DIREX® 4 L	SIMAZINE 4 L
GOAL® 2XL	SIMAZINE 80W
KARMEX® DF	SIM-TROL® 4L
KROVAR® I	SOLICAM® DF
KROVAR® II	SURFLAN™ AS
PROWL®	SURFLAN™ 75W

Do not apply these tank mixtures in Puerto Rico.

Refer to 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 ammonium 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 to the 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 regrowth occurs and bermudagrass injury and stand reduction can be tolerated. East of the Rocky Mountains, rates of 6 to 10 fluid ounces

per acre must be used in shaded conditions or where lesser degree of suppression is desired.

#### **Cut Stump (tree crops)**

Use instructions: Cut stump applications of this product may be made during site preparation or site renovation, prior to transplanting tree crops. This product will control regrowth 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% solution of this product to the freshly cut surface immediately after cutting. Delays in application may result in reduced performance. For best results, applications must be made during periods of active growth and full leaf expansion.

**PRECAUTIONS, 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. 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.

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#### **Berry Crops**

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**Labeled crops:** Blackberry, blueberry, boysenberry, cranberry, currant, dewberry, elderberry, gooseberry, huckleberry, loganberry, olallieberry, raspberry (black, red), youngberry.

Precautions, 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 of cranberries. Allow a minimum of 14 days between last application and harvest of other berry crops. Do not make directed sprays within cranberry bush areas prior to berry harvest.

#### **Spot Treatment in Cranberry Production**

Use instructions: Spot treatments may be used to control weeds growing in dry ditches (interior and perimeter) of cranberry production areas. Hand-held sprayer 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% solution of this product. Spray to wet vegetation, not to run-off.

Precautions, restrictions: 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. Allow a minimum of 30 days between last application and harvest of cranberries. Do not apply this material through the irrigation system. 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.

#### **Post-harvest Treatments in Cranberry Production**

Use instructions: 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 % 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, restrictions:** Make applications only after cranberries have been harvested. Do not treat more than 10% of the total bog. Allow a minimum of 6 months after 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. 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.

**Citrus Crops**

**Labeled crops:** Calamondin, chironja, citron, citrus hybrids, grapefruit, kumquat, lemon, lime, mandarin (tangerine), orange (all), pummelo, tangelo (ugli), tangor.

**Florida and Texas only:** For burndown or control of the weeds listed below, apply the specified rates of this product in 3 to 30 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 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		Glyphosate IPA 41% Rate per Acre			
		1 QT	2 QT	3 QT	5 QT
Bermudagrass		B	-	PC	C
Guineagrass	Texas & Florida Ridge	B	C	C	C
	Florida Flatwoods	-	B	C	C
Paragrass		B	C	C	C
Torpedograss		S	-	PC	C

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

**Christmas Trees and Other Non-Food Tree Crops**

**Labeled crops:** Pine, poplar eucalyptus, Christmas trees, and other non-food tree crops.

**Post-directed, Spot Treatment, Wipers**

**Use instructions:** 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, restrictions:** 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. UNLESS OTHERWISE DIRECTED, THIS PRODUCT IS NOT TO BE USED FOR USE AS AN OVER-THE-TOP BROADCAST SPRAY IN CHRISTMAS TREES AND OTHER PINE TREES.

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**Site Preparation**

Use instructions: This product may be used prior to planting Christmas trees.

Precautions, restrictions: Precautions must be taken to protect non-target plants during site preparation applications.

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**Pome Fruit**

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**Labeled crops:** Apple, crabapple, loquat, mayhaw, pear (including oriental pear), quince.

Precautions, restrictions: Allow a minimum of 1 day between last application and harvest in pome crops.

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**Stone Fruit**

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**Labeled crops:** Apricot, cherry (sweet, sour), nectarine, olive, peach, plum/prune (all types).

Precautions, 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, Brazil nut, butternut, cashew, chestnut, chinquapin, coconut, filbert (hazelnut), hickory nut, macadamia, pecan, pistachio, walnut (black, English).

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

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**Tropical and Subtropical Trees and Fruit**

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**Labeled crops:** Atemoya, avocado, banana, Barbados cherry (acerola), biriba, blimbe, breadfruit, cacao (cocoa) bean, canistel, carambola (starfruit), cherimoya, coffee, dates, figs, guava, jaboticaba, jackfruit, longan, lychee, mango, marmaladebox (genip), papaya, persimmon, plantain, pomegranate, sapodilla, sapote (black, mamey, white), soursop, sugar apple, tamarind, tea.

Precautions, 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 tropical or 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 instructions: 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 1/25 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 must be injected vertically into the top. Any subsequent regrowth 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.

**Precautions, restrictions:** Do not apply more than 1/2 fluid ounce (15mL) of this product's concentrate per mat (or unit). Remove all fruit from plants and 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), kiwi fruit, passion fruit.

Applications must not be made when green shoots, canes 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.

**Precautions, 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**

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**Labeled crops:** Alfalfa, clover, kudzu, lespedeza, lupin, sainfoin, trefoil, velvet bean, vetch (all types).

**Types of applications:** Dormant (alfalfa only), pre-plant, pre-emergence, at-planting, spot treatment, wiper applications, renovation, pre-harvest.

**Dormant (alfalfa only)**

**Use instructions:** 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 spring to alfalfa that is dormant. Applications must be made after spring temperatures have warmed enough to encourage resumption of weed growth, but prior to initiation of trifoliolate leaf expansion of the alfalfa. Applications made after expansion of the first trifoliolate leaf of the alfalfa will cause growth reduction and reduced crop yield.

**Precautions, restrictions:** Do not use ammonium sulfate when spraying dormant alfalfa with Glyphosate IPA 41%. 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. 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. Application of this product can cause crop injury. Any such crop injury is the responsibility of the applicator.

**Pre-plant, Pre-emergence, and At-planting**

**Use instructions:** 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.

**Precautions, restrictions:** Remove domestic livestock before application. The crop may be fed or grazed as soon as it reaches sufficient maturity.



**Pre-harvest**

**Use instructions:** This product may be used in declining stands or any stand where crop injury or destruction is acceptable. This product will control annual and perennial weeds, including quackgrass, when applied prior to harvest. 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.

**Precautions, restrictions:** Make only one application to an existing crop stand per year. The treated crop and weeds can be harvested and fed to livestock according to the intervals below.

	Maximum Single Application Rate	Minimum Interval Between Application and Harvest / Grazing
Alfalfa	2 quarts per acre	36 hours
All other labeled legumes above	3 pints per acre	3 days

This application may destroy an alfalfa stand and may severely injure or destroy other labeled crops such as clover. Do not use for pre-harvest application for alfalfa grown for seed, as a reduction in germination or vigor may occur.

**Spot Treatment or Wiper Applications Over-the-top**

**Use instructions:** This product may be applied as a spot treatment or with wiper applicators. For additional information on wiper applicators, see the "SELECTIVE EQUIPMENT" section of this label. Applications may be made in the same area at 30-day intervals.

**Precautions, restrictions:** For spot treatment and wiper applications, apply in areas where the movement of domestic livestock can be controlled. No more than 10% of total field area is to be treated at one time. Remove domestic livestock before application and wait 3 days after application before grazing livestock or harvesting.

**Renovation**

**Use instructions:** This product may be applied as a broadcast spray to renovate existing stands of alfalfa, clover, and other labeled forage legumes. If the crop is to be grazed or harvested for feed, use up to 2 quarts per acre in alfalfa and up to 3 pints per acre in other labeled legumes. For complete removal of established stands of clover it may be necessary to use the higher treatment rates listed in the "PERENNIAL WEEDS RATE TABLE" in this label.

**Precautions, restrictions:** When treatment rates of 2 quarts per acre for alfalfa or 3 pints per acre for other forage legumes are used, remove domestic livestock before application and wait 3 days after application before reintroduction. If treatment rates above these levels are necessary, do not graze or harvest treated foliage for livestock feed. Crops listed for treatment in this label may be planted into the treated area at any time; for other crops, wait 30 days between application and planting.

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**Conservation Reserve Program (CRP)**


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**Types of applications:** Renovation (rotating out of CRP), site preparation, post-emergence weed control in dormant CRP grasses, wiper applications over-the-top.

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

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

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

**Use instructions:** 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 this 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 grasses have reached dormancy.

**Precautions, 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.

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### Grass Seed or Sod Production

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**Labeled crops:** Any grass (*Graminea* family) except corn, sorghum, sugarcane and those listed in this label under "Cereal and Grain 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.

**Use instructions:** This product controls most existing vegetation prior to renovating turf or forage grass areas or establishing turf grass grown for sod. Make applications before, during, or after planting or for renovation. For maximum control of existing vegetation, delay planting to determine if any regrowth from escaped underground plant parts occurs. 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. 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. Broadcast equipment may be used to control sod remnants or other unwanted vegetation after sod is harvested.

**Precautions, restrictions:** Do not disturb soil or underground plant parts before treatment. Tillage or renovation techniques such as vertical mowing, coring or slicing must be delayed 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 after application before grazing or harvesting. For any crop not listed for treatment in this label, applications must be made at least 30 days prior to planting. Applications must be made prior to the emergence of the crop to avoid crop injury.

#### Shielded Sprayers

**Use instructions:** 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 aid in shielded sprayer applications. Best results are obtained when the grass seed crop is small enough to easily pass by the protective shields. For additional instructions, see "Shielded and Hooded Applicators" in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label.

**Precautions, restrictions:** 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.

#### Wiper Applications Over-the-Top

**Use instructions:** Applicators must be adjusted so that the wiper contact point is at least 2 inches above the desirable vegetation. Weeds must 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. For additional instructions, see "Wiper Applicators" in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label.

**Precautions, restrictions:** Contact of the herbicide solution with desirable vegetation may result in damage or destruction.

#### Spot Treatments

**Use instructions:** Use a 1.0 to 1.5% solution.

**Precautions, restrictions:** Apply this product prior to heading of grasses grown for seed. 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. Hand-held equipment may be used to control sod remnants or other unwanted vegetation after sod is harvested.

#### Creating Rows in Annual Ryegrass

**Use instructions:** Use 1 to 2 pints of this product per acre. Use the higher rate 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, restrictions:** Set nozzle heights to allow the establishment of the desired row spacing while preventing spray droplets, spray fines, or drift to contact the ryegrass plants not treated. Use of low-pressure nozzles, or drop nozzles designed to target the application over a narrow band are suggested.

**Grower assumes all responsibility for crop losses from misapplication.**

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#### Pasture Grasses

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**Labeled crops:** Any grass (*Gramineae* family) except corn, sorghum, sugarcane and those listed in this label under "Cereal and Grain Crops". Grasses that may be treated include bahiagrass, bermudagrass, bluegrass, brome, fescue, guineagrass, kikuyu grass, orchardgrass, pangola grass, ryegrass, timothy, wheatgrass.

**Types of applications:** Pre-plant, pre-emergence, spot treatment, wiper applications over-the-top, pasture renovation, post-emergent weed control (broadcast treatments).

#### **Pre-plant, Pre-emergence and Pasture Renovation**

**Use instructions:** 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 re-planting.

**Precautions, 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. Crops listed for treatment in this label may be planted into the treated area at any time; for other crops, wait 30 days between application and planting.

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

**Use instructions:** 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, restrictions:** 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. When spot treatments or wiper application are made using rates above 3 quarts per acre, no more than 10% of the total pasture may be treated at any one time. To achieve maximum performance, remove domestic livestock before application and wait 7 days after application before grazing livestock or harvesting.

#### **Post-emergent Weed Control (Broadcast Treatments)**

**Use instructions:** This product may be used to suppress competitive growth and seed production of annual weeds and undesirable vegetation in pastures. For selective applications with broadcast spray equipment, apply 12 to 16 fluid ounces of this product per acre in early spring before desirable perennial grasses break dormancy and initiate green growth. Late fall applications can be made after desirable perennial grasses have reached dormancy.

**Precautions, restrictions:** Some stunting of 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. Use of higher application rates will cause stand reductions. Do not apply more than 3 quarts per acre per year onto pasture grasses except for renovation uses (see instructions above). If replanting is needed due to severe stand reduction, applications must be made at least 30 days prior to planting any crop not listed for treatment in this label.

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#### Rangelands

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**Types of applications:** Post-emergence.

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 weeds in rangelands. Follow-up applications in sequential years should eliminate most of the viable seeds.

Grazing of treated areas must be delayed to encourage growth of desirable perennials. Allowing desirable perennials to flower and reseed in the treated area will encourage successful transition.

**Use instructions:** Apply 12 to 16 fluid ounces of this product per acre to control or suppress many weeds, including downy brome, cheatgrass, cereal rye and jointed goatgrass in rangelands. Apply when most 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, and suggested, where spring moisture is usually limited and fall germination

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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. Repeat applications in subsequent years may be necessary to eliminate the seedbank before reestablishing desirable perennial grasses in medusahead-dominated rangelands.

**Precautions, restrictions:** Slight discoloration of the desirable grasses may occur, but they will regreen and regrow under moist soil conditions as effects of this product wear off. Do not use ammonium sulfate when spraying rangeland grasses with this product. No waiting period between treatment and feeding or grazing of livestock is required. Do not apply more than 3 quarts per acre per year.

**ROUNDUP READY CROPS**

The following instructions include all applications which can be made onto the specified Roundup Ready crops during the complete cropping season. Do NOT combine these instructions with other specifications made for crop varieties that do not contain the Roundup Ready gene, in the "ANNUAL AND PERENNIAL CROPS" section of this label.

**THIS PRODUCT MAY ONLY BE USED FOR POST-EMEREGENCE APPLICATION ONLY ON CROP VARIETIES DESIGNATED AS CONTAINING THE ROUNDUP READY GENE.**

Applying this product to crop varieties that are not designated as Roundup Ready 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, since severe injury or destruction will result.

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

**For ground applications** with broadcast equipment, 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 ROUNDUP READY GENE.**

See the "MIXING" and "APPLICATION EQUIPMENT AND TECHNIQUES" sections of this label for additional directions and 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 suggested for over-the-top applications of this product unless otherwise noted in this product label.

Unless otherwise directed, nonionic surfactant may be added to the spray solution for applications to Roundup Ready crops. The addition of certain surfactants to this product may result in some crop response including leaf necrosis, leaf chlorosis or leaf speckling due to the surfactant added to the spray mixture. Read and carefully observe precautionary statements and other information appearing on the surfactant label.

Ammonium sulfate may be mixed with this product for applications to Roundup Ready® crops. Refer to the "MIXING" section for use instructions for 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 pre-plant burndown treatment of this product is suggested 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, burcucumber, and giant ragweed with multiple germination times or suppressed (stunted) weeds may require a second application of this product for complete control. The second application must be made after some regrowth has occurred and at least 10 days after a previous application of this product.

**Alfalfa with Roundup Ready Gene**

Crop	LIMITATIONS
Roundup Ready Alfalfa	<p>Utilize the annual maximum use rate in the table for this section.</p> <p>For additional information on maximum application rates refer to the "PRODUCT INFORMATION" section of this label.</p> <p>For precautionary instructions regarding the use of this product in Roundup Ready crops refer to the "ROUNDUP READY CROPS" section of this label.</p> <p>In-crop (over-the-top) application of this product in Roundup Ready alfalfa will eliminate non-glyphosate tolerant species used as a companion or cover crop, or is over-seeded with a second species.</p> <p>Do not use more than 2 quarts of this product per acre for any single in-crop application. Allow 7 days between sequential applications of this product.</p> <p>For all in-crop applications in both newly established (seeding year) and established stands (non-seeding year) do not use more than the combined total per year of 6 quarts per acre.</p> <p>Before application, remove domestic livestock.</p> <p>After treatment, allow a minimum of 5 days before grazing, cutting and feeding of forage and hay.</p> <p>Tanks mixtures of this product with other herbicides, insecticides, or fungicides may result in crop injury or reduced weed control.</p> <p>Do not apply when ground is frozen or snow covered.</p>

**Types of applications:** Pre-plant, At-planting, Pre-emergence, Post-emergence (In-crop)

Maximum Applications Rates	Rate qts./Acre
Combined total per year for all applications, including pre-plant during year of establishment	8
Combined total per year for in-crop applications on newly established and established stands	6

**Pre-plant, At-planting, Pre-emergence:** Use this product before, during or after planting Roundup Ready alfalfa.

**Post-emergence (In-crop):** Use this product over-the-top of Roundup Ready alfalfa (in-crop) from emergence until 5 days prior to cutting. For maximum crop yield and quality potential of the forage and hay, apply this product after weeds have emerged but before alfalfa growth or re-growth interferes with spray coverage of the target weeds.

For application rates for specific weeds, see the "ANNUAL WEEDS RATE" section and "PERENIAL WEEDS RATE"

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section of this label. At the use rates listed, this product will control these annual and perennial grasses and broadleaf weeds. Use of this product in Roundup Ready alfalfa will also suppress the parasitic weed Dodder (*Cuscuta* spp.). Repeat applications may be necessary for complete control.

**New Stand Establishment (Seeding Year)-** In alfalfa, up to 10 percent of the seedlings may not contain a Roundup Ready gene due to the biology and breeding constraints, and will not survive after the first application of this product. To eliminate the undesirable effects of stand gaps created by this loss of plants, make a single application of at least 1 quart of this product per acre at or before the 4-trifoliolate growth stage. Use application rates for new stand establishment (seeding year) listed in this section.

**Application Rates**

New Stand Establishment (Seeding Year)	Rate qts./Acre	Stage
<i>Prior to First Cutting</i>	1 - 2	From emergence up to 4 trifoliolate leaves
<i>Prior to First Cutting</i>	Up to 2	From 5 trifoliolate leaves up to 5 days before <i>first</i> cutting
<i>After First Cutting</i>	Up to 2	In-crop application, per cutting, up to 5 days before cutting

**Established Stands-** Use application rates for in-crop applications to established stands of alfalfa (non-seeding year) listed in this section.

**Application Rates**

Established Stands (Non-bearing year)	Rate qts./Acre	Stage
	Up to 2	In-crop applications, per cutting, up to 5 days before cutting

**Tank Mixture Partners:** Apply with products listed in this section for post-emergence (in-crop) over the top application to Roundup Ready alfalfa. Check that the partner product used is labeled for this use on Roundup Ready alfalfa. Refer to the partner product label for important information in regards to the use instructions, spray additive requirements, weeds controlled, the size range of weeds that should be treated, and application restrictions including pre-harvest intervals and crop rotation information.

Follow the specifications listed on the most restrictive label when planning and applying the tank mixture combination.

**New Stand Establishment (Seeding Year):** Apply this product to Roundup Ready alfalfa post-emergence (in-crop) over-the-top at up to 2 quarts per acre in a tank-mix with the herbicides listed in this section. Apply to emerged weeds, but before the alfalfa growth or re-growth interferes with spray coverage of the target weeds.

[Select the active ingredient(s) or brand name of product(s) for the products listed that are registered for use on alfalfa at the time of printing this label.

Clethodim, imazamox, Imazethapyr, quizalofop p-ethyl

Assure II, Poast, Prism, Pursuit, Raptor, SelectMAX]

[If the list contains Pursuit or Raptor add the following advisor statement. A temporary reduction in growth may occur when Pursuit or Raptor is applied to seedling alfalfa. Do not use methylated seed oil or crop oil concentrate with this product in tank mixtures with Pursuit or Raptor as unsatisfactory crop injury may result.]

**Established Stands (Non-Seeding Year):** Apply this product to established stands of Roundup Ready alfalfa post-emergence (in-crop) over-the-top with tank mixture partners according to the growing condition of alfalfa listed below.

**Actively growing alfalfa:** Apply this product at up to 4 fluid ounces per acre per in a tank-mix with the herbicides listed in this section. For control of emerged grasses and broadleaf weeds when alfalfa is actively growing, this product may be applied at up to 4 fluid ounces per acre in a tank mixture with the herbicides list in this section.

[Select the active ingredient(s) or brand name of products(s) for the products listed that are registered for use on alfalfa at the

time of printing this label.

Clethodim, imazamox, imazethapyr, sethoxydim, quizalofop p-ethyl

Assure II, Poast, Prism, Pursuit, Raptor, SelectMAX]

[If the list contains Pursuit or Raptor add the following advisor statement. Do not use methylated seed oil or crop oil concentrate with this product in tank mixtures with Pursuit or Raptor as unsatisfactory crop injury may result.]

*Dormant alfalfa:* Apply this product at up to 44 fluid ounces for control of emerged annual grasses and broadleaf weeds when alfalfa is dormant in a tank mixture with the herbicides list in the section. Apply when the daily temperature remains above freezing.

[Select the active ingredient(s) or brand name of products(s) for the products listed that are registered for use on alfalfa at the time of printing this label.

imazamox, imazethapyr, metribuzin, pronamide, propyzamide

Kerb 50-W, Lexone, Pursuit, Raptor, Sencor ]

[If the list contains Pursuit or Raptor add the following advisor statement. Do not use methylated seed oil or crop oil concentrate with this product in tank mixtures with Pursuit or Raptor as unsatisfactory crop injury may result.]

**Canola with the Roundup Ready Gene**

Crop	LIMITATIONS
<b>Roundup Ready Canola (Spring Varieties)</b>	Utilize the annual maximum use rate in the table in this section. For additional information on maximum application rates refer to the "PRODUCT INFORMATION" section of this label. For precautionary instructions regarding the use of this product per acre in Roundup Ready crops refer to the "ROUNDUP READY CROPS" section of this label. Do not apply more than 2 quarts of this product per season for all pre-plant, at-planting and pre-emergence applications combined. Do not apply more than 2 in-crop (over-the-top) broadcast applications from crop emergence through the 6-leaf stage of development. Do not use more than 2 quarts per acre of this product for all in-crop applications. After treatment, allow a minimum of 60 days before canola harvest.

A definition of Roundup Ready spring canola is those varieties of Roundup Ready canola that are planted in the spring and harvested in the fall and do not undergo a winter dormancy period.

**Types of applications:** Pre-plant, At-planting, Pre-emergence, Post-emergence (In-crop)

Maximum Applications Rates	Rate qts./Acre
Total of all Pre-plant, At-planting, Pre-emergence applications	2
Total of all In-crop Applications from emergence to 6-leaf Stage	1

**Pre-plant, At-planting, Pre-emergence:** Use this product before, during or after planting Roundup Ready canola

**Post-emergence (In-crop):** Use this product post-emergence to spring varieties of Roundup Ready canola from emergence through the 6-leaf stage of development. To minimize crop injury and yield loss, avoid application during bolting or flowering. Eliminate competing weeds early to maximize yield potential.

**Single Application-** For the control of annual weeds, use 16 to 24 fluid ounces per acre no later than the 6-leaf stage. Avoid

overlapping applications, which could result in temporary yellowing, delayed flowering, and/or growth reduction. If more than 16 fluid ounces per acre is applied after the 4-leaf stage, then similar crop injury may result.  
*Sequential Application-* To maximize the control of early emerging annual weeds and perennial weeds such as Canola thistle and quackgrass, or when more than one application is needed for difficult to control weeds use sequential applications. Use 16 fluid ounces of this product per acre to 1 to 3-leaf canola. Allow a minimum of 10 days before application, but no later than the 6-leaf stage for the sequential application.

Crop	LIMITATIONS
<b>Roundup Ready Canola (Winter Varieties)</b>	<p>Utilize the annual maximum use rate in the table in this section. For additional information on maximum application rates refer to the "PRODUCT INFORMATION" section of this label.</p> <p>For precautionary instructions regarding the use of this product in Roundup Ready crops refer to the "ROUNDUP READY CROPS" section of this label.</p> <p>Do not apply more than 2 quarts of this product per season for all pre-plant, at-planting and pre-emergence applications combined.</p> <p>Do not apply more than 2 in-crop (over-the-top) broadcast applications from crop emergence up to the onset of bolting. Do not use more than 2 quarts per acre of this product for all in-crop applications. After treatment, allow a minimum of 60 days before canola harvest. There is no waiting period between last application and open grazing of livestock.</p> <p>Use of more than 24 fluid ounces per acre prior to the 6-leaf stage could result in reduced crop growth in the fall.</p> <p>No waiting period is required between application and open grazing of livestock.</p>

A definition of Roundup Ready winter canola is those varieties of Roundup Ready canola that are planted in the fall and harvested in the following spring or summer. These canola varieties are intended to undergo a cold dormancy cycle in the winter.

**Types of applications:** Pre-plant, At-planting, Pre-emergence, Post-emergence (In-crop)

Maximum Applications Rates	Rate qts./Acre
Total of all Pre-plant, At-planting, Pre-emergence applications	2
Total of all In-crop applications from emergence to canopy closure or prior to bolting in the spring	2

**Pre-plant, At-planting, Pre-emergence:** Use this product before, during or after planting Roundup Ready canola

**Post-emergence (In-crop):** Apply this product to winter varieties of Roundup Ready canola from emergence to canopy closure in the fall and prior to bolting in the spring. To minimize crop injury and yield loss, avoid application during bolting or flowering. Eliminate competing weeds early to maximize yield potential.

Use a sequential application of this product for control of weeds with multiple germination times, or suppressed (stunted) weeds, or weeds that have overwintered. Apply the second application after some weed re-growth has occurred. Allow a minimum 60 days before the sequential application.

*Single Application-* When weeds are small and actively growing in the fall, use 24 to 32 fluid ounces of this product per acre. When weeds are dense or overwintered, or large and well established, use the higher rate. For the control of annual weeds, use 16 to 24 fluid ounces of this product per acre no later than the 6-leaf stage. Avoid overlapping applications, which could result in temporary yellowing, and/or growth reduction. If more than 24 fluid ounces per acre is applied after the 6-leaf stage in the fall, then similar crop injury may result

*Sequential Application-* Use 16 to 32 fluid ounces of this product per acre to 2-leaf or larger canola in the fall, followed by a



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sequential application at the same rate. Allow a minimum of 60 days between applications but do not apply after bolting in the spring. For best control of early emerging annual weeds and winter emerging weeds such as downy brome, jointed goatgrass and ryegrass, and for weeds that have over wintered, use a sequential application. This product will control or suppress most perennial weeds. To reduce perennial weeds competition with the crop, apply a sequential treatment.

**Corn with the Roundup Ready Gene**

**1: ROUNDUP READY® CORN**

**(The following instructions must not be combined with instructions for use on Roundup Ready Corn 2. For Roundup Ready Corn 2, see specific instructions below)**

**Types of applications:** Pre-plant, at-planting, pre-emergence, post-emergence, spot treatment, pre-harvest, post-harvest.

<b><u>Maximum Allowable Combined Application Quantities Per Season</u></b>	
Combined total per year for all applications	8 quarts per acre
Pre-plant, at-planting, pre-emergence applications	5 quarts per acre
Total in-crop applications from emergence through the V <sub>8</sub> stage or 30 inches	2 quarts per acre
Maximum pre-harvest 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

**Pre-plant, Pre-emergence and At-planting**

**Use instructions:** This product may be applied alone or in a tank mixture before, during or after planting.

**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% of labeled rate. Refer to the specific product label and observe all precautions and limitations on the label for any pre-emergence herbicide application, including application timing restrictions, soil restrictions, minimum recropping interval and rotational guidelines – the more restrictive requirements apply.

NOTE: For maximum weed control, a post-emergence (in-crop) application of this product must be applied following the use of less than labeled rates of the pre-emergence residual products listed above.

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

**Use instructions:** This product may be applied post-emergence to Roundup Ready® corn from emergence through the V<sub>8</sub> stage (8 leaves with collars) or until corn height reaches 30 inches, whichever come 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 applications of this product. The post-emergent application of 24 to 32 fluid ounces per acre of this product must be made 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 applied in tank mixture with Bullet, Degree, Degree Xtra, Harness, Harness Xtra, Harness Xtra 5.6L, and Micro-Tech at 50 to 100% of labeled rate. This product may be applied in tank mixture

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with Halomax 75™ 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
Halomax 75	30 inches
Atrazine	12 inches

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

**Precautions, restrictions:** See the “ROUNDUP READY CROPS” section of this label for precautionary instructions 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 V<sub>8</sub> 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.

**Pre-harvest**

**Use instructions:** In Roundup Ready corn, up to 1 quart per acre of this product can be applied pre-harvest. 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).

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

**Post-harvest**

**Use instructions:** 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.

**Precautions, restrictions:** Allow a minimum of 7 days between treatment and harvest or feeding of treated vegetation. Do not apply pre-harvest if more than 2 quarts per acre has been previously applied in over-the-top or drop nozzle application in crop.

**2. ROUNDUP READY CORN 2**

**The following instructions refer to Roundup Ready Corn 2, and must not be combined with instructions above for Roundup Ready Corn not designated as “2”.**

The use of higher in-crop rates described in this section on other than Roundup Ready Corn 2 may cause crop injury and reduce yields.

**TYPES OF APPLICATIONS:** Pre-plant, At-Planting, Pre-emergence, Post-emergence (In-Crop), Spot Treatment Pre-harvest, Post-Harvest.

<b><u>Maximum Allowable Combined Application Quantities Per Season</u></b>	
Combined total per year for all applications	8 quarts per acre
Pre-plant, Pre-emergence, At-Planting applications	5 quarts per acre
Single in-crop application	1.5 quarts per acre
Total in-crop applications from emergence through the 48 inch stage	3 quarts per acre

Maximum pre-harvest 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
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**Pre-plant, Pre-emergence, At-Planting**

Use Instructions: 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 % of labeled. Refer to the specific product label and observe all precautions and limitations on the label for any pre-emergence herbicide application, including application timing restrictions, soil restrictions, minimum recropping interval and rotational guidelines – the more restrictive requirements apply.

**NOTE:** For maximum weed control, a post-emergence (in crop) application of this product must be applied following the use of less than labeled rates of the pre-emergence residual products listed above.

**Pre-emergence followed by post-emergence weed control**

Follow directions for pre-emergence applications above, and post-emergence applications below. The post-emergence application must be made before weeds reach a height or density that is competitive with the corn. Observe limits on total product applied per year.

**Post-emergence (In-Crop)**

Use Instructions: This product may be applied over-the-top or with drop nozzles to Roundup Ready Corn 2 from emergence through the V<sub>8</sub> stage (8 leaves with collars) or until corn reaches 30 inches in height, whichever comes first. When corn reaches 24 to 30 inches tall, drop nozzles are suggested for optimum spray coverage and weed control. When corn reaches 30 to 48 inches tall, apply ONLY with drop nozzles adjusted to avoid spraying into the whorls of the corn plants. Refer to tables above for rates of Glyphosate IPA 41% and mixtures for the specific weeds to be controlled.

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. The post-emergent application of 24 to 32 fluid ounces per acre of this product must be made 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 applied in tank mixture with Bullet, Degree, Degree® Xtra, Harness, Harness Xtra, Harness Xtra 5.6L, and Micro-Tech at 50 to 100 % of labeled rate. This product may be applied in tank mixture with Halomax 75 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*	5 inches
Micro-Tech*	
Halomax 75	30 inches
atrazine	12 inches

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

**PRECAUTIONS, RESTRICTIONS:** See the "ROUNDUP READY CROPS" section of this label for precautionary instructions 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.

**Pre-harvest**

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

**PRECAUTIONS, RESTRICTIONS:** Allow a minimum of 7 days between application and harvest, feeding, or grazing. Do not apply pre-harvest if more than 2 quarts per acre has been previously applied in over-the-top or drop nozzle application in crop.

**Post-Harvest**

**USE INSTRUCTIONS:** 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.

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

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**Cotton with the Roundup Ready Gene**

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**Types of applications:** Pre-plant, at-planting, pre-emergence, over-the-top, selective equipment, pre-harvest.

<b>Maximum Allowable Combined Application Quantities Per Season</b>	
Combined total per year for all applications	8 quarts per acre
Pre-plant, at-planting, pre-emergence 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

**Precautions, restrictions:** See the "ROUNDUP READY CROPS" section of this label for precautionary instructions for use in Roundup Ready crops. 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. NO MORE THAN TWO APPLICATIONS ARE TO BE MADE 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.**

**Pre-plant, At-planting and Pre-emergence**

**Use instructions:** This product may be applied before, during or after planting cotton.

**Over-the-Top**

**Use instructions:** 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 cotton 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.

**Precautions, restrictions:** The use of additional surfactant in the spray solution may result in crop injury and reduced yield and is not to be used for over-the-top applications of this product to Roundup Ready cotton.

**Salvage treatment:** This treatment may be used after the 4-leaf stage of development and must 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. **NOTE: SALVAGE TREATMENTS WILL RESULT IN SIGNIFICANT BOLL LOSS, DELAYED MATURITY AND/OR YIELD LOSS. NO MORE THAN ONE SALVAGE TREATMENT IS TO BE USED PER GROWING SEASON.**

**NOTE:** For specific rates of application and instructions, refer to the "ANNUAL WEEDS RATE TABLE" and "PERENNIAL WEEDS RATE TABLE" in this label.

**Precautions, restrictions:** See the "ROUNDUP READY CROPS" section of this label for precautionary instructions for use in Roundup Ready crops.

**Selective Equipment**

**Use instructions:** 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, post-directed equipment must be used which directs the spray to the base of the cotton plants. Contact of the spray with cotton leaves must be avoided to the maximum extent possible. To minimize spray onto the leaves of the cotton plants, place nozzles in a low position directing a horizontal spray pattern under the cotton leaves to contact weeds in the row, and maintain low spray pressure (less than 30 psi). For best results, make applications while weeds are small (less than 3 inches).

**Precautions, 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.

**Pre-harvest**

**Use instructions:** This product may be applied for pre-harvest annual and perennial weed control as a broadcast treatment to Roundup Ready cotton after 20 % boll crack. Up to 2 quarts of this product may be applied using either aerial or ground spray equipment. **NOTE:** This product will not enhance the performance of harvest aids when applied to Roundup Ready cotton.

**Precautions, restrictions:** Allow a minimum of 7 days between application and harvest of cotton. THE USE OF ADDITIVES FOR PRE-HARVEST APPLICATION OF THIS PRODUCT TO ROUNDUP READY COTTON IS PROHIBITED.

**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.**

Crop	LIMITATIONS
Roundup Ready Flex Cotton	Utilize the annual maximum use rate in the table in this section. For additional information on maximum application rates refer to the "PRODUCT INFORMATION" section of this label. For precautionary instructions regarding the use of this product in Roundup Ready crops refer to the "ROUNDUP READY CROPS" section of this label.

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The information furnished in this section is specific to and only appropriate for use with varieties designated as Roundup Ready Flex cotton. If application instructions in this section are used on other than Roundup Ready Flex cotton, crop injury and reduced yields will result. DO NOT combine the instructions in this section, with those in the "Roundup Ready Cotton" section of this label, or with any other Roundup Ready cotton or Roundup Ready Flex cotton instructions on labeling for this or any other glyphosate-containing products. Drift of this product from an application made to Roundup Ready Flex cotton onto adjacent fields of post 4-leaf (node) Roundup Ready cotton may cause extensive injury including boll loss, delayed maturity and/or yield loss.

Types of applications: Pre-plant, At-planting, Pre-emergence, Post-emergence (In-crop), Pre-harvest

Maximum Applications Rates	Rate qts./Acre
Combined total per year for all applications	8
Total of all Pre-plant, At-planting, Pre-emergence applications	5
Total of all In-crop applications from cracking to 60 percent open bolls	6
Total of all In-crop applications between layby and 60 percent open bolls	2
Total of all In-crop applications from 60 percent open bolls to 7 days prior to harvest	2
Total of all In-crop applications from emergence through harvest	6

**Pre-plant, At-planting, Pre-emergence:** Use this product before, during or after planting Roundup Ready Flex cotton.

TANK MIXTURES: Apply with 2,4-D or Clarity and use prior to planting only. Apply this product to Roundup Ready Flex cotton prior to crop emergence in a tank-mix with the herbicides listed in this section. Check that the partner product used is labeled for application prior to planting or the crop emergence on Roundup Ready Flex cotton. Refer to the partner product label for important information in regards to the use instructions, spray additive requirements, weeds controlled, the size range of weeds that should be treated, and application restrictions including pre-harvest intervals and crop rotation information. Follow the specifications listed on the most restrictive label when planning and applying the tank mixture combination.

[Select the active ingredient(s) or brand name of product(s) for the products listed that are registered on Roundup Ready Flex cotton for use prior to emergence of cotton at the time of printing this label.

Clomazone, diuron, flumioxazin, flumeturon, fomesafen, metolachlor, s-metolachlor, pendimethalin, prometryn, pyriithobac-sodium

Caparol, Command, Cotoran, Cotto-Pro, Direx, Dual MAGNUM, Dual II MAGNUM, Karmex, Meturon, PARRLAY, Prowl, Prowl H2O, Reflex, Stalwart, Staple, Valor, Zorial]

Do not use more than 5 quarts per acre for all pre-plant, at-planting and pre-emergence applications combined.

**Post-emergence (In-crop):** Apply this product to control annual grasses and broadleaf weeds listed on this label in Roundup Ready Flex cotton. Eliminate competing weeds early to maximize yield potential. Use one or more application of this product to control or suppress many potential perennial weeds. In the first application, use 1 quart per acre to control or suppress small (1 to 3 inch tall) annual grasses and broadleaf weeds. Apply this product by ground equipment post-emergence to Roundup Ready Flex cotton rates at up to 1.5 quarts per acre per application. To achieve more thorough weed coverage, apply with post-directed spray equipment.

TANK MIXTURES: Apply this product with herbicides listed in this section in a post-emergence (in-crop) over-the-top of Roundup Ready Flex cotton. Check that the partner product used is labeled for application post-emergence (in-crop) on Roundup Ready Flex cotton. Refer to the partner product label for important information in regards to the use instructions, spray additive requirements, weeds controlled, the size range of weeds that should be treated, and application restrictions including pre-harvest intervals and crop rotation information. Follow the specifications listed on the most restrictive label when planning and applying the tank mixture combination.

[Select the active ingredient(s) or brand name of products(s) for the products listed that are registered for use post-emergence (in-crop) to cotton at the time of printing this label.

Clomazone, fluazifop-P-butyl, fomesafen, metolachlor, s-metolachlor, pyriithiobac-sodium, quizalofop-p-ethyl, sethoxydim, trifloxysulfuron-sodium

Assure II, Dual MAGNUM, Envoke, Fusilade, Poast Plus, Reflex, Select, Select MAX, Stalwart, Staple]

[If the list contains Staple, Dual Magnum, Stalwart add the appropriate advisor statement. Staple may cause leaf yellowing and/or leaf crinkling when applied post-emergence (in-crop) in Roundup Ready Flex cotton. Dual Magnum and Stalwart applied over-the-top of Roundup Ready Flex cotton may cause leaf injury in the form of necrotic spotting.]

Apply this product with herbicides listed in this section in a post-emergence (in-crop) using precision post-directed or hooded sprayers on Roundup Ready Flex cotton. Check that the partner product used is labeled for application post-emergence (in-crop) on Roundup Ready Flex cotton. Refer to the partner product label for important information in regards to the use instructions, spray additive requirements, weeds controlled, the size range of weeds that should be treated, and application restrictions including pre-harvest intervals and crop rotation information. Follow the specifications listed on the most restrictive label when planning and applying the tank mixture combination. This product can be tank-mixed with the following products for in-crop.

[Select the active ingredient(s) or brand name of products(s) for the products listed that are registered for use post-emergence (in-crop) to cotton at the time of printing this label.

Carfentrazone-ethyl, diuron, flumioxazin, fluometuron, linuron, pendimethalin, prometyrn, pyriithiobac-sodium, trifloxysulfuron-sodium

Aim, Caparol, Cotoran, Direx, Envoke, Layby-Pro, PARRLAY, Prowl H2O, Staple, Valor]

[If the list contains Staple add the following advisor statement. Staple may cause leaf yellowing and/or leaf crinkling when applied post-emergence (in-crop) in Roundup Ready Flex cotton.]

**LIMITATIONS:**

Do not use more than 1.5 quarts of this product in a single, in-crop application to Roundup Ready Flex cotton using ground application equipment.

In-crop applications of this product greater than 1 quart per acre, either alone or with additional cotton products containing surfactant may cause a crop response such as leaf speckling or leaf necrosis.

Do not use more than 1 quart of this product per acre in aerial applications.

Do not use more than 2 quarts of this product per acre between layby and 60% open bolls.

Do not use more than 6 quarts of this product for all combined applications from crop emergence to 60% open bolls.

**DO NOT ADD ADDITIONAL SURFACTANT OR ADDITIVES CONTAINING SURFACTANT TO THIS PRODUCT FOR OVER-THE-TOP APPLICATION TO ROUNDUP READY FLEX COTTON.**

**Pre-harvest:** Use this product on Roundup Ready Flex cotton up to 2 quarts per acre for annual and perennial weed control prior to harvest after 60 % boll crack.

**NOTE:** When applied to Roundup Ready Flex cotton, this product will not enhance the performance of harvest aids.

LIMITATIONS: After treatments, allow a minimum of 7 days before harvest.

**DO NOT ADD ADDITIONAL SURFACTANT OR ADDITIVES CONTAINING SURFACTANT TO THIS PRODUCT FOR PRE-HARVEST APPLICATION TO ROUNDUP READY FLEX COTTON.**

**IMPORTANT USE OF THIS PRODUCT IN ACCORDANCE WITH THE LABEL DIRECTIONS IS EXPECTED TO RESULT IN NORMAL GROWTH OF ROUNDUP READY FELX COTTON. HOWEVER, DUE TO THE SENSITIVITY OF COTTON FRUITING TO VARIOUS ENVIRONMENTALCONDITIONS, AGRONOMIC PRACTICES AND OTHER FACTORS, IT IS 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.

**Soybeans with the Roundup Ready Gene**

**Types of applications:** Pre-plant, at-planting, pre-emergence, post-emergence, pre-harvest, post-harvest.

<b>Maximum Allowable Combined Application Quantities Per Season</b>	
Combined total per year for all applications	8 quarts per acre
Pre-plant, at-planting, pre-emergence 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

Precautions, restrictions: See the "ROUNDUP READY CROPS" section of this label for precautionary instructions for use in Roundup Ready crops.

**Pre-plant, Pre-emergence and At-planting**

Use instructions: This product may be applied before, during or after planting soybeans.

**Post-emergence**

Use instructions: When applied as directed, this product will control labeled annual grasses and broadleaf weeds in Roundup Ready soybeans. Applications of this product can be made in Roundup Ready soybeans from emergence (cracking) throughout flowering. Refer to the "ANNUAL WEEDS RATE TABLE" in this label for rate specifications for specific annual weeds. In general, an initial application of 1 quart per acre on 2 to 8 inch tall weeds is suggested. 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 heavy weed densities 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 product 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, it is suggested that 1 quart per acre of this product be applied when the weed is 8 to 12 inches tall to increase control and possibly avoid the need for a sequential application.

**NOTE:** The use of this product for in-crop applications over Roundup Ready soybeans is not registered in California.

Precautions, 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.

**Pre-harvest**

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

Precautions, restrictions: Care must be taken to avoid excessive seed shatter loss due to ground application equipment. Allow a minimum of 14 days between final application and harvest of soybeans or feeding of soybeans,



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forage or hay.

**Post-harvest**

Use instructions: 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.

**Sugar Beet with the Roundup Ready Gene**

Crop	LIMITATIONS
Roundup Ready Sugar Beet	<p>Utilize the annual maximum use rate in the table in this section. For additional information on maximum application rates refer to the "PRODUCT INFORMATION" section of this label.</p> <p>Refer to the "ANNUAL WEEDS RATE SECTION" and "PERENNIAL WEEDS RATE SECTION" of this label for application rates for specific weeds.</p> <p>For precautionary instructions regarding the use of this product in Roundup Ready crops refer to the "ROUNDUP READY CROPS" section of this label.</p> <p>Do not apply more than 8 quarts of this product per acre per season for combined total of all applications.</p> <p>Do not use more than 4.5 quarts of this product for all combined applications from crop emergence through harvest.</p> <p>Do not use more than 1.5 quarts of this product per acre for any single application from crop emergence until the 8-leaf stage.</p> <p>Do not use more than 1 quart of this product per acre for any single application between the 8-leaf stage and canopy closure.</p> <p>After treatment, allow a minimum of 30 days before sugar beet harvest. Tanks mixtures of this product with other herbicides, insecticides, or fungicides may result in crop injury or reduced weed control.</p>

**Types of applications:** Pre-plant, At-planting, Pre-emergence, Post-emergence (In-crop)

Maximum Applications Rates	Rate qts./Acre
Combined total per year for all applications	8
Total of all Pre-plant, At-planting, Pre-emergence applications	5
Total of all applications made from emergence through the 8-leaf stage	2.5
Total of all applications made after the 8-leaf stage and up to canopy closure	2

**Pre-plant, At-planting, Pre-emergence:** Apply this product may be applied before, during or after planting Roundup Ready sugar beet.

**TANK MIXTURES:** Apply this product with herbicides listed in this section in a post-emergence (in-crop) over-the-top of Roundup Ready sugar beet. Check that the partner product used is labeled for application prior to emergence of sugar beet. Refer to the partner product label for important information in regards to the use instructions, spray additive requirements, weeds controlled, the size range of weeds that should be treated, and application restrictions including pre-harvest intervals and crop rotation information. Follow the specifications listed on the most restrictive label when planning and applying the tank mixture combination.

[Select the active ingredient(s) or brand name of product(s) for the products listed that are registered for use pre-plant, at-planting, and/or pre-emergence to sugar beet at the time of printing this label.

Ethofumesate

Norton SC]

**Post-emergence (In-crop):** Use this product over-the-top of Roundup Ready sugar beet for control of annual grasses and

broadleaf weeds from emergence to 30 days prior to harvest. To maximize yield potential, eliminate competing weeds early. Use up to 4 sequential applications of this product to achieve desired level control. Allow 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.

**TANKS MIXTURES:** Apply this product with herbicides listed in this section in a post-emergence (in-crop) over-the-top of Roundup Ready sugar beet. Check that the partner product used is labeled for application post-emergence (in-crop) on Roundup Ready sugar beet. Refer to the partner product label for important information in regards to the use instructions, spray additive requirements, weeds controlled, the size range of weeds that should be treated, and application restrictions including pre-harvest intervals and crop rotation information. Follow the specifications listed on the most restrictive label when planning and applying the tank mixture combination.

[Select the active ingredient(s) or brand name of product(s) for the products listed that are registered for use post-emergence (in-crop) to sugar beet at the time of printing this label.

Clethodim, clopyralid, desmedipham, dimethenamid, ethofumesate, s-metolchlor, phenmedipham, quizalofop-p-ethyl, trisulfuron-methyl

Assure II, Betamix, Betanex, Dual MAGNUM, Norton SC, Outlook, Progress, Select, Slinger, Upbeet]

[If the list contains Betamix, Betanex, Norton SC and Progress add the following advisor statement. Betamix, Betanex, Norton SC and Progress can cause significant sugar beet injury. Refer to these product labels for crop injury precautions.]

**NON-CROP USES AROUND THE FARMSTEAD**

**Types of applications:** non-selective weed control, trim-and-edge, greenhouse / shade house, chemical mowing, cut stumps, habitat management.

**Weed Control and Trim-and-Edge**

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

**Tank mixtures:** This product may be tank mixed with the following products. Refer to these product 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, 1.5 quarts per acre when weeds are 6 to 12 inches tall and 2 quarts per acre when weeds are greater than 12 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 OR HIGH VOLUME EQUIPMENT" section of this label for specified rates.

- Arsenal®
- Banvel / Clarity®
- Barricade® 65WG
- Diuron
- Endurance®
- Escort®
- Karmex® DF
- Krovar® I DF
- Oust®
- Pendulum® 3.3 EC
- Pendulum® WDG

- Plateau®
- Princep® Caliber® 90
- Princep® Liquid
- Ronstar® 50 WSP
- Sahara®
- Simazine
- Surflan™
- Telar®
- Vanquish®
- 2,4-D

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

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**Greenhouse / Shade House**

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This product may be used to control weeds in and around greenhouses and shade houses. Desirable vegetation must not be present during application and air circulation fans must be turned off.

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**Chemical Mowing**

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Use instructions: This product will suppress perennial grasses listed in this section to serve as a substitute for mowing. Use 6 fluid ounces of this product per acre when treating Kentucky bluegrass. Use 8 fluid ounces of this product per acre when treating tall fescue, fine fescue, orchardgrass, bahiagrass or quackgrass covers. 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. Chemical mowing applications may be made along farm ditches and other parts of farmsteads.

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

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**Cut Stumps**

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**Types of application:** Treating cut stumps in any non-crop site listed on this label.

Use instructions: 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% solution of this product to the freshly cut surface immediately after cutting. Delays in application may result in reduced performance. For best results, applications must be made during periods of active growth and full leaf expansion.

Alder	Reed, giant
Eucalyptus	Saltcedar
Madrone	Sweetgum
Oak	Tanoak
Pepper, Brazilian	Willow
Pine, Austrian	

Precautions, restrictions: Do not make cut stump applications when the roots of desirable woody brush or trees may be grafted to the roots of the cut stump. 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.

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**Habitat Management**

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**Types of uses:** Habitat restoration and maintenance, wildlife food plots.

**Habitat Restoration and Maintenance**

Use instructions: This product may be used to control exotic and other undesirable vegetation in habitat management areas. 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. Spot treatments can be made to selectively remove unwanted plants for habitat maintenance and enhancement. The tank mixtures listed in this "NON-CROP USES AROUND THE FARMSTEAD" section of this label may be used for habitat restoration and maintenance.

**Wildlife Food Plots**

Use instructions: 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. If tillage is needed to prepare a seedbed, wait 7 days after application

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before tillage.

**ANNUAL WEEDS RATE TABLE (Alphabetically by Species)**

**WATER CARRIER VOLUMES OF 3 TO 10 GALLONS PER ACRE FOR GROUND APPLICATIONS AND 3 TO 5 GALLONS PER ACRE FOR AERIAL APPLICATIONS ARE SUGGESTED.**

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 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.

WEED SPECIES	Glyphosate IPA 41% Rate – Fluid Ounces per Acre				
	16	24	32	40	48
	Maximum Height / Length (in inches)				
Ammannia, 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"	-	-	-	-
Eastern mangrass	8"	12"	-	-	-
Eclipta	-	4"	8"	12"	-
Fall panicum	4"	-	6"	-	12"
Falsedandelion	-	20"	-	-	-
Falseflax, small seed	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 / Maretail <sup>6</sup> ( <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 - 6"	12"	-	-
Lambsquarters	-	6"	12"	-	20"
Little barley	6"	12"	-	-	-
London rocket	6"	-	24"	-	-
Mayweed	-	2"	6"	12"	18"
Morningglory, annual ( <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 species	-	12"	18"	24"	-
Prickly lettuce	-	6"	12"	-	-
Purslane	-	-	3"	-	6"
Ragweed, common	-	6"	12"	-	18"
Ragweed, giant	-	6"	12"	-	18"
Red rice	-	-	4"	-	-
Russian thistle	-	6"	12"	-	-
Rye, volunteer / cereal <sup>2</sup>	6"	18"	18+"	-	-
Ryegrass	-	-	6"	-	12"
Sandbur, field	6"	12"	-	-	-
Sandbur, longspine	6"	12"	-	-	-
Shattercane	6"	12"	20"	-	-
Shepherd's purse	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.
- <sup>6</sup> For control of glyphosate resistant horseweed / marestalk in cotton, corn and soybeans refer to "CONTROL AND MANAGEMENT OF GLYPHOSATE RESISTANT HORSEWEED (MARESTAIL, Conyza Canadensis) IN CORN, COTTON AN SOYBEANS" section below.

**Annual Weeds – Rates for 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, 1.5 quarts per acre if weeds are over 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 WEEDS RATE TABLE" 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, Dicamba or Tordon® 22K**

12 to 16 fluid ounces of this product plus 0.25 pound a.i. of dicamba or 0.5 pound a.i. of 2,4-D or 1 to 2 fluid ounces of Tordon 22K per acre will control the following weeds with maximum height or length indicated: 6" - prickly lettuce, marestalk / horseweed (*Conyza canadensis*), morningglory (*Ipomoea spp.*), kochia (dicamba only), wild buckwheat (Tordon 22K only); 12" - cocklebur, lambsquarters, pigweed, Russian thistle (2,4-D only).

16 fluid ounces of this product plus 0.5 pound a.i. of 2,4-D per acre will control the following weeds when they are the 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 precautionary statements of all products used in tank mixtures. Some crop injury may occur if dicamba or Tordon 22K is applied within 45 days of planting.

**DO NOT APPLY DICAMBA OR 2,4-D 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% solution.

For best results, use a 2% 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% solution for annual and perennial weeds and a 5 to 10% 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 28 fluid ounces of this product plus 1 to 2 pounds of atrazine per acre will control the following weeds: Barnyardgrass (requires 28 fluid ounces for control), downy brome, green foxtail, lambsquarters, prickly lettuce, tansy mustard, pigweed, field sandbur, stinkgrass, Russian thistle, volunteer wheat, witchgrass and kochia (add 0.12 pound a.i. of dicamba for control).

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**Control and Management of Glyphosate Resistant Horseweed (Marestail, Conyza canadensis) in Corn, Cotton and Soybeans**

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For ground applications, use 10 to 20 gallons of water per acre. For aerial applications, use 3 to 15 gallons of water per acre. **For tank-mix specifications, read and carefully observe the precautionary statements and all other information appearing on the product labels, supplemental labeling or fact sheets published separately for all herbicides used.**

**CORN**

**Pre-plant, at-planting, pre-emergence:** Apply a tank mixture of this product (32 fluid ounces per acre) plus 2,4-D (0.5 pounds of a.i. per acre) before horseweed exceeds 6 inches in height. See the 2,4-D product label for time intervals that are required between application and planting.

Atrazine (1 to 2 pounds of a.i. per acre) may be included in the tank mixture to provide residual control. Refer to the atrazine product label for specific use instructions.

**In-crop (Roundup Ready Corn hybrids only):** For in-crop Roundup Ready corn, apply a tank mixture of this product (32 fluid ounces per acre) plus Clarity® (8 to 16 fluid ounces per acre) or 2,4-D (0.5 to 1.0 pounds a.i. per acre). Apply between corn emergence and the 5-leaf stage of growth (approximately 8 inches tall).

**COTTON**

**Pre-plant:** For control of horseweed, apply this product (32 fluid ounces per acre) in a tank mix with Clarity (8 fluid ounces per acre). This application must be made 21 to 35 days before planting and before horseweed reaches 6 inches in height. In order to avoid crop injury, a minimum interval of 21 days during which there is at least 1 inch of cumulative rainfall must be observed between Clarity application and planting of cotton.

**Post-directed (Roundup Ready Cotton varieties only):** Management of early season weed competition and the development of a crop height differential between cotton and the horseweed is often achieved by a combination of Pre-plant burndown and post-emergent over-the-top and/or directed applications of Glyphosate IPA 41% herbicide. These measures enhance the development of a height differential that is necessary to successfully make post-directed treatments. In-crop post-directed applications of MSMA (2 pounds a.i. per acre) tank mixed with diuron (0.5 to 0.75 pounds a.i. per acre) must be made when the temperature is 80°F or higher.

**SOYBEANS**

**Pre-plant:** Apply a tank mixture of this product (32 fluid ounces per acre) with 2,4-D (0.5 pounds a.i. per acre) before horseweed exceeds 6 inches in height. See the 2,4-D product label for time intervals that are required between application and planting. For areas where 2,4-D product cannot be applied due to application restrictions or proximity to a sensitive crop, contact your local retailer or Aceto Agricultural Chemicals Corporation, representative.

**In-crop (Roundup Ready Soybean varieties only):** It is strongly encouraged that horseweed be controlled prior to planting using specified pre-plant burndown treatments. For application in-crop to Roundup Ready soybeans, apply a tank mixture of this product (32 fluid ounces per acre) with Amplify (0.3 ounces per acre). This treatment should be used as a salvage treatment only for a horseweed infestation that was not controlled pre-plant. Application must

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be made between full emergence of the first trifoliolate leaf and 50% flowering stage of soybeans. At the time of treatment, horseweed must not exceed 6 inches in height.

**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. Best results are obtained when soil moisture is adequate for active growth.

Weeds Species	Glyphosate IPA 41% Rate (QT/A)	Water Volume (GPA)	Hand-Held % Solution
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. Applications must be followed 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		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 must have at least 3 inches of growth. Tillage prior to treatment must be avoided. Tillage 7 to 10 days after application is suggested 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 5 to 10 gallons of water per acre. Fallow fields must be tilled 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%
Do not treat when weeds are under drought stress as good soil moisture is necessary for active growth.			
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 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.			
Also for control, apply 2 quarts of this product plus 0.5 pound a.i. of dicamba in 10 to 20 gallons of water per acre. Do not apply by air.			
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. Applications must be made 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			



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least one irrigation will promote active bindweed growth.

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. Apply by air in fallow and reduced tillage systems only. Applications must be delayed until maximum emergence has occurred and when vines are between 6 to 18 inches in length.

**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 a maximum weed emergence and runner growth. Allow 3 or more days after application before tillage.

**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 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.

**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 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 0.5 pound a.i. of dicamba per acre. For partial control, apply 1 quart of this product plus 0.5 pound a.i. of dicamba 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 0.5 to 1 pound a.i. 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.

Also for control, 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.

**Dock, curly** 3 - 5 3 - 40 2%  
Apply when most plants have reached the early bud stage of growth.

Also for control, apply 16 to 32 fluid ounces of this product plus 0.5 to 1 pound a.i. of 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 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 and control of seedlings germinating after fall treatments or the following spring.

Gumeagrass	2 - 3	3 - 40	1%
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Apply when most plants have reached at least the 7-leaf stage of growth. Ensure thorough coverage when using hand-held equipment. In Texas and the ridge of Florida, use 2 quarts for control. In the flatwoods region of Florida, 3 quarts is required.

Horsenettle	3 - 5	3 - 20	2%
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Apply when most plants have reached the early bud stage.

Horseradish	4	3 - 40	2%
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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%
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Iceplant must be at or beyond the early bud stage of growth. Thorough coverage is necessary for best control.

Jerusalem artichoke	3 - 5	3 - 20	2%
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Apply when most plants are in the early bud stage.

Johnsongrass	0.5 - 3	3 - 40	1%
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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 non-crop, 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 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 1 quart per acre.

For burndown of Johnsongrass, apply 1 pint of this product in 3 to 10 gallons of water per acre before 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 must be uniform and complete.

Kikuyugrass	2 - 3	3 - 40	2%
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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%
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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%
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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%
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Apply when most plants have reached the early bud stage.

Milkweed (common)	3	3 - 40	2%
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Apply when most plants have reached the late bud to flower stage of growth.

Muhly, wirestem	1 - 2	3 - 40	2%
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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 non-crop 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 or prior to spring applications. Allow 3 or more days after application before tillage.

Mullein, common	3 - 5	3 - 20	2%
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Apply when most plants are in the early bud stage.

Napiergrass	3 - 5	3 - 20	2%
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Apply when most plants are in the early head stage.

Nightshade, silverleaf	2	3 - 10	2%
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Applications must be made when at least 60% of the plants have berries. Fall treatments must be applied before a killing frost.

Nutsedge, purple, yellow	0.5 - 3	3 - 40	1 - 2%
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Apply 3 quarts of this product per acre or apply a 1 to 2% 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 that have not germinated will not be controlled and may germinate after 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. Subsequent applications will be necessary for long-term control.

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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.

Orchardgrass 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.

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.

Pampasgrass 1.5 - 2%

Pampasgrass must 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 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. Visible 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 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. Allow 3 or more days after application before tillage. In pastures or sods, use a moldboard plow for best results.

In pastures, sods or non-crop 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 quackgrass is greater than 8 inches tall.

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 that 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 the late summer to fall.

Ryegrass, perennial 1 - 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 in 10 to 40 gallons of water per acre. In non-crop, or areas where annual tillage is not practiced (no-till), 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. Do not tank mix with residual herbicides when using 1-quart per acre rate.

Smartweed, swamp 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. of 2,4-D in 3 to 10 gallons of water per acre in the late summer or fall.

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 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. of 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.

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Sweet potato, wild 2%  
 Partial control. Apply to plants that are at or beyond 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 regrowth 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 in spring, apply 1 quart of this product, or 1 pint of this product plus 0.5 pound a.i. of 2,4-D, in 3 to 10 gallons of water per acre. 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 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.

Trumpet creeper 2 5-10 2%  
 Partial control. Apply in late September or October, to plants that 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.

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**

Apply this product after full leaf expansion, unless otherwise directed. Use higher rate for larger plants and/or dense areas of growth. On vines, use the higher rate for 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.

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.

Weeds Species	Glyphosate IPA 41% Rate (QT/A)	Water Volume (GPA)	Hand-Held % Solution
Alder	3-4	3-40	1-1.5%
For control			
Ash	2-5	3-40	1-2%
Partial control			
Aspen, quaking	2-3	3-40	1-1.5%
For control			
Bearmat (Bearclover)	2-5	3-40	1-2%
Partial control			
Beech	2-5	3-40	1-2%
Partial control			
Birch	2-3	3-40	1-1.5%
For control			

Weeds Species	Glyphosate IPA 41% Rate (QT/A)	Water Volume (GPA)	Hand-Held % Solution
Blackberry	3 - 4	10 - 40	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% solution of this product. For control of blackberries after leaf drop and until 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	3 - 40	1 - 2%
For control			
Bracken	2 - 5	3 - 40	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	3 - 40	1 - 2%
Partial control			
Catsclaw	-	-	1 - 1.5%
Partial control			
Ceanothus	2 - 5	3 - 40	1 - 2%
Partial control			
Chamise	-	-	1%
For control. Thorough coverage of foliage is necessary for best results.			
Cherry: bitter, black, pin	2 - 3	3 - 40	1 - 1.5%
For control			
Coyote brush	-	-	1.5 - 2%
For control. Apply when at least 50% of the new leaves are fully developed.			
Dogwood	2 - 5	3 - 40	1 - 2%
Partial control			
Elderberry	2 - 3	3 - 40	1 - 1.5%
For control			
Elm	2 - 5	3 - 40	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	3 - 40	1 - 2%
Partial control			
Gorse	2 - 5	3 - 40	1 - 2%
Partial control			
Hazardia	-	-	1 - 2%
Partial control. Thorough coverage of foliage is necessary for best results.			
Hawthorn	2 - 3	3 - 40	1 - 1.5%
For control			
Hazel	2 - 3	3 - 40	1 - 1.5%
For control			
Hickory	2 - 5	3 - 40	1 - 2%
Partial control			
Honeysuckle	3 - 4	3 - 40	1 - 1.5%
For control			
Hombeam, American	2 - 5	3 - 40	1 - 2%
Partial control			
Kudzu	4 - 5	3 - 40	2%
For control. Repeat applications may be required to maintain control.			
Locust, black	2 - 4	3 - 40	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 or early summer treatments.			

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Weeds Species	Glyphosate IPA 41% Rate (QT/A)	Water Volume (GPA)	Hand-Held % Solution
Manzanita	2 - 5	3 - 40	1 - 2%
Partial control			
Maple, red	2 - 4	3 - 40	1 - 1.5%
For control, apply a 1 to 1.5% solution when at least 50% 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% 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	3 - 40	1 - 2%
Partial control			
Oak, post	3 - 4	3 - 40	1 - 1.5%
For control			
Oak, northern, pin	-	-	1 - 1.5%
For control. Apply when at least 50% of the new pin leaves are fully developed.			
Oak, southern, red	2 - 3	3 - 40	1 - 1.5%
For control			
Persimmon	2 - 5	3 - 40	1 - 2%
Partial control			
Pine	2 - 5	3 - 40	1 - 2%
For control			
Poison ivy / Poison oak	4 - 5	3 - 40	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	3 - 40	1 - 2%
Partial control			
Redbud, eastern	2 - 5	3 - 40	1 - 2%
For control			
Rose, multiflora	2	3 - 40	1%
For control. Treatments must be made prior to leaf deterioration by leaf-eating insects.			
Russian olive	2 - 5	3 - 40	1 - 2%
Partial control			
Sage, black	-	-	1%
For control. Thorough coverage of foliage is necessary for best results.			
Sage, white	2 - 5	3 - 40	1 - 2%
Partial control			
Sagebrush, California	-	-	1%
For control. Thorough coverage of foliage is necessary for best results.			
Salmonberry	2 - 3	3 - 40	1 - 1.5%
For control			
Saltcedar	2 - 5	3 - 40	1 - 2%
For control			
Sassafras	2 - 5	3 - 40	1 - 2%
Partial control			
Sourwood	2 - 5	3 - 40	1 - 2%
Partial control			
Sumac, poison, smooth, winged	2 - 4	3 - 40	1 - 2%
Partial control			
Sweetgum	2 - 3	3 - 40	1 - 1.5%
For control			
Swordfern	2 - 5	3 - 40	1 - 2%
Partial control			
Tallowtree, Chinese	-	-	1%
For control. Thorough coverage of foliage is necessary for best results.			
Tanoak 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 - 3	3 - 40	1 - 1.5%
For control			

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Weeds Species	Glyphosate IPA 41% Rate (QT/A)	Water Volume (GPA)	Hand-Held % Solution
Tobacco, tree Partial control			1 - 2%
Trumpet creeper For control	2 - 3	3 - 40	1 - 1.5%
Vine maple Partial control	2 - 5	3 - 40	1 - 2%
Virginia creeper For control	2 - 5	3 - 40	1 - 2%
Waxmyrtle, southern Partial control	2 - 5	3 - 40	1 - 2%
Willow For control	3 - 4	3 - 40	1 - 1.5%

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#### STORAGE AND DISPOSAL

Do not contaminate water, foodstuffs, feed or seed by storage or disposal.

**Pesticide Storage:** 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 or recirculate in mini-bulk or bulk container to mix well before using.

**Pesticide Disposal:** Wastes resulting from the use of this product that cannot be used or chemically reprocessed must 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 destroyed.

**CONTAINER DISPOSAL:** Nonrefillable container. Do not reuse this container to hold other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container, Contact your state regulatory agency to determine allowable practices in your state. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Offer for recycling, if available or reconditioning if appropriate or puncture and dispose in a sanitary landfill, or by incineration or by other procedures approved by state and local authorities. Do not burn unless allowed by state and local ordinances. If rinsate cannot be used, follow pesticide disposal instructions. If not triple or pressure rinsed, these containers are acute hazardous wastes and must be disposed in accordance with local, state and federal regulations.

**[FOR METAL CONTAINERS]** DO NOT cut or weld metal containers.

**[FOR SMALL CONTAINERS] Triple rinse as follows:** Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. **Pressure rinse as follows:** Empty the remaining contents into application equipment or a mix tank and drain container for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

**[FOR LARGE CONTAINERS] 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. Empty the rinsate into the application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. **Pressure rinse as follows:** Empty the remaining contents into application equipment or a mix tank and drain container for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

**[FOR BULK AND MINIBULK CONTAINERS]**

**CONTAINER DISPOSAL:** Refillable container. Refill this container with glyphosate isopropylamine salt 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 the container into the 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 times.

Before refilling, inspect thoroughly for damage, such as cracks, punctures, bulges, dents, abrasions, and damaged or worn threads on closure devices. Check for leaks after filling and before transporting. Do not refill or transport a damaged or leaking container.



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**IMPORTANT: READ BEFORE USE**

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

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

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

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[For non-refillable containers] Batch Code: \_\_\_\_\_

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## Supplemental Labeling

### GLYPHOSATE IPA 41 %

GROUP	9	HERBICIDE
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AVOID HERBICIDE CONTACT WITH FOLIAGE, GREEN STEMS, EXPOSED NON-WOODY ROOTS OR FRUIT OF CROPS, DESIRABLE PLANTS AND TREES BECAUSE SEVERE INJURY OR DESTRUCTION MAY RESULT.

This supplemental labeling includes the following crops:

- Oil Seed Crops
- Roundup Ready Alfalfa
- Roundup Ready Canola (Spring Varieties)
- Roundup Ready Canola (Winter Varieties)
- Roundup Ready Flex Cotton
- Roundup Ready Sugar Beet

The labeling must be in possession of the user at the time of application.

Read the label affixed to the container for [Glyphosate IPA 41%] before applying.

Read the entire label before using this product. Use only according to label instructions.

Read "WARRANTY DISCLAIMER" and "LIMITATION OF LIABILITY" before buying or using. If terms are not acceptable, return product at once unopened.

Use of [Glyphosate IPA 41%] according to this labeling is subject to the use precautions and limitations imposed by the label affixed to the container for [Glyphosate IPA 41%].

See product label for complete Directions for Use, Precautions, Restrictions, First Aid, Storage and Disposal.

EPA Reg. No. 2749-535

Crop	LIMITATIONS
<b>Oil Seed Crops:</b> Borage, Buffalo gourd (seed), Canola, Crambe, Flax, Jojoba, Lesquerella, Meadowfoam, Mustard (seed), Rape, Safflower, Sesame, Sunflower	For Roundup Ready canola, refer to the Round Ready Crop section. Utilize the annual maximum use rate in the "PRODUCT INFORMATION" section except for the canola, safflower and sunflower which are provided in the table for this section. For pre-harvest (safflower and sunflower) and post-harvest applications: <ul style="list-style-type: none"> <li>• After treatment, allow a minimum of 7 days before harvest or livestock feeding.</li> <li>• Do not plant any crop not listed on this label for at least 30 days after application.</li> </ul>
<b>Types of applications:</b> Chemical fallow, pre-plant fallow beds, pre-plant, pre-emergence, at-planting, selective equipment in row middles (hooded or shielded sprayers, or wiper applicators), post-harvest treatments and pre-harvest for safflower and sunflower only.	

Crop	Maximum Applications Rates	Rate qts./Acre
Canola	Combined total for all pre-emergence and shielded sprayer applications.	2
Safflower	Combined total for all pre-emergence and shielded sprayer applications.	3
	Pre-harvest application.	3
Sunflower	Combined total for all pre-emergence and shielded sprayer applications.	1
	Pre-harvest application.	1

**Pre-plant, At-planting, Pre-emergence:** Use this product before, during or after planting oil seed crops listed in this section. For canola, safflower and sunflower follow the maximum application rates listed in the table for this section.  
**Tank Mixture Partner:** Apply with pendimethalin (Prowl) for sunflowers before, during or after planting into conventionally tilled soil, a cover crop, established sod or previous crop residue.  
**Selective Equipment:** Apply this product using a wiper applicator or shielded sprayer in-between the rows once the crop is established. Refer to additional instructions on the use of wiper applicators and hooded sprayers in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label. For canola, safflower and sunflower follow the maximum application rates listed in the table for this section.  
**Pre-harvest (Safflower and Sunflower Only):** When applied to a physiologically mature crop of safflower and sunflower prior to harvest, this product provides weed control as a harvest aid. Apply a maximum of 3 quarts of this product per acre for safflower when seed has lost its opaque character, approximately 20 to 30 days after the end of flowering of the secondary branches. Apply a maximum of 1 quart of this product per acre for sunflower when the backsides of sunflower heads are yellow and bracts are turning brown, and seed moisture content is less than 35 percent.  
**Post-Harvest:** Apply this product for weed control after harvest of oil seed crops. Use higher rates to control large weeds growing in the crop at the time of harvest.  
**Tank Mixture Partners:** Apply with 2,4-D or dicamba.

Crop	LIMITATIONS
Roundup Ready Alfalfa	<p>Utilize the annual maximum use rate in the table for this section.            For additional information on maximum application rates refer to the "PRODUCT INFORMATION" section of this label.            For precautionary instructions regarding the use of this product in Roundup Ready crops refer to the "ROUNDUP READY CROPS" section of this label.            In-crop (over-the-top) application of this product in Roundup Ready alfalfa will eliminate non-glyphosate tolerant species used as a companion or cover crop, or is over-seeded with a second species.            Do not use more than 2 quarts of this product per acre for any single in-crop application. Allow 7 days between sequential applications of this product.            For all in-crop applications in both newly established (seeding year) and established stands (non-seeding year) do not use more than the combined total per year of 6 quarts per acre.            Before application, remove domestic livestock.            After treatment, allow a minimum of 5 days before grazing, cutting and feeding of forage and hay.            Tanks mixtures of this product with other herbicides, insecticides, or fungicides may result in crop injury or reduced weed control.            Do not apply when ground is frozen or snow covered.</p>
<b>Types of applications:</b> Pre-plant, At-planting, Pre-emergence, Post-emergence (In-crop)	
<b>Maximum Applications Rates</b>	<b>Rate</b>

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	<b>qts./Acre</b>
Combined total per year for all applications, including pre-plant during year of establishment	8
Combined total per year for in-crop applications on newly established and established stands	6

**Pre-plant, At-planting, Pre-emergence:** Use this product before, during or after planting Roundup Ready alfalfa.

**Post-emergence (In-crop):** Use this product over-the-top of Roundup Ready alfalfa (in-crop) from emergence until 5 days prior to cutting. For maximum crop yield and quality potential of the forage and hay, apply this product after weeds have emerged but before alfalfa growth or re-growth interferes with spray coverage of the target weeds.

For application rates for specific weeds, see the "ANNUAL WEEDS RATE" section and "PERENIAL WEEDS RATE" section of this label. At the use rates listed, this product will control these annual and perennial grasses and broadleaf weeds. Use of this product in Roundup Ready alfalfa will also suppress the parasitic weed Dodder (*Cuscuta* spp.). Repeat applications may be necessary for complete control.

**New Stand Establishment (Seeding Year)-** In alfalfa, up to 10 percent of the seedlings may not contain a Roundup Ready gene due to the biology and breeding constraints, and will not survive after the first application of this product. To eliminate the undesirable effects of stand gaps created by this loss of plants, make a single application of at least 1 quart of this product per acre at or before the 4-trifoliolate growth stage. Use application rates for new stand establishment (seeding year) listed in this section.

**Application Rates**

<b>New Stand Establishment (Seeding Year)</b>	<b>Rate qts./Acre</b>	<b>Stage</b>
<i>Prior to First Cutting</i>	1 - 2	From emergence up to 4 trifoliolate leaves
<i>Prior to First Cutting</i>	Up to 2	From 5 trifoliolate leaves up to 5 days before <i>first</i> cutting
<i>After First Cutting</i>	Up to 2	In-crop application, per cutting, up to 5 days before cutting

**Established Stands-** Use application rates for in-crop applications to established stands of alfalfa (non-seeding year) listed in this section.

**Application Rates**

<b>Established Stands (Non-bearing year)</b>	<b>Rate qts./Acre</b>	<b>Stage</b>
	Up to 2	In-crop applications, per cutting, up to 5 days before cutting

**Tank Mixture Partners:** Apply with products listed in this section for post-emergence (in-crop) over the top application to Roundup Ready alfalfa. Check that the partner product used is labeled for this use on Roundup Ready alfalfa. Refer to the partner product label for important information in regards to the use instructions, spray additive requirements, weeds controlled, the size range of weeds that should be treated, and application restrictions including pre-harvest intervals and crop rotation information.

Follow the specifications listed on the most restrictive label when planning and applying the tank mixture combination.

**New Stand Establishment (Seeding Year):** Apply this product to Roundup Ready alfalfa post-emergence (in-crop) over-the-top at up to 2 quarts per acre in a tank-mix with the herbicides listed in this section. Apply to emerged weeds, but before the alfalfa growth or re-growth interferes with spray coverage of the target weeds.

[Select the active ingredient(s) or brand name of product(s) for the products listed that are registered for use on alfalfa at the time of printing this label.

Clethodim, imazamox, Imazethapyr, quizalofop p-ethyl

Assure II, Poast, Prism, Pursuit, Raptor, SelectMAX]

[If the list contains Pursuit or Raptor add the following advisor statement. A temporary reduction in growth may occur when Pursuit or Raptor is applied to seedling alfalfa. Do not use methylated seed oil or crop oil concentrate with this product in tank mixtures with Pursuit or Raptor as unsatisfactory crop injury may result.]

**Established Stands (Non-Seeding Year):** Apply this product to established stands of Roundup Ready alfalfa post-emergence (in-crop) over-the-top with tank mixture partners according to the growing condition of alfalfa listed below.

*Actively growing alfalfa:* Apply this product at up to 4 fluid ounces per acre per in a tank-mix with the herbicides listed in this section. For control of emerged grasses and broadleaf weeds when alfalfa is actively growing, this product may be applied at up to 4 fluid ounces per acre in a tank mixture with the herbicides list in this section.

[Select the active ingredient(s) or brand name of products(s) for the products listed that are registered for use on alfalfa at the time of printing this label.

Clethodim, imazamox, imazethapyr, sethoxydim, quizalofop p-ethyl

Assure II, Poast, Prism, Pursuit, Raptor, SelectMAX]

[If the list contains Pursuit or Raptor add the following advisor statement. Do not use methylated seed oil or crop oil concentrate with this product in tank mixtures with Pursuit or Raptor as unsatisfactory crop injury may result.]

*Dormant alfalfa:* Apply this product at up to 44 fluid ounces for control of emerged annual grasses and broadleaf weeds when alfalfa is dormant in a tank mixture with the herbicides list in the section. Apply when the daily temperature remains above freezing.

[Select the active ingredient(s) or brand name of products(s) for the products listed that are registered for use on alfalfa at the time of printing this label.

imazamox, imazethapyr, metribuzin, pronamide, propyzamide

Kerb 50-W, Lexone, Pursuit, Raptor, Sencor\_]

[If the list contains Pursuit or Raptor add the following advisor statement. Do not use methylated seed oil or crop oil concentrate with this product in tank mixtures with Pursuit or Raptor as unsatisfactory crop injury may result.]

Crop	LIMITATIONS
<p><b>Roundup Ready Canola (Spring Varieties)</b></p>	<p>Utilize the annual maximum use rate in the table in this section. For additional information on maximum application rates refer to the "PRODUCT INFORMATION" section of this label.</p> <p>For precautionary instructions regarding the use of this product per acre in Roundup Ready crops refer to the "ROUNDUP READY CROPS" section of this label.</p> <p>Do not apply more than 2 quarts of this product per season for all pre-plant, at-planting and pre-emergence applications combined.</p> <p>Do not apply more than 2 in-crop (over-the-top) broadcast applications from crop emergence through the 6-leaf stage of development.</p> <p>Do not use more than 2 quarts per acre of this product for all in-crop applications. After treatment, allow a minimum of 60 days before canola harvest.</p>
<p>A definition of Roundup Ready spring canola is those varieties of Roundup Ready canola that are planted in the spring and harvested in the fall and do not undergo a winter dormancy period.</p> <p><b>Types of applications:</b> Pre-plant, At-planting, Pre-emergence, Post-emergence (In-crop)</p>	

Maximum Applications Rates	Rate qts./Acre
Total of all Pre-plant, At-planting, Pre-emergence applications	2
Total of all In-crop Applications from emergence to 6-leaf Stage	1

**Pre-plant, At-planting, Pre-emergence:** Use this product before, during or after planting Roundup Ready canola

**Post-emergence (In-crop):** Use this product post-emergence to spring varieties of Roundup Ready canola from emergence through the 6-leaf stage of development. To minimize crop injury and yield loss, avoid application during bolting or flowering. Eliminate competing weeds early to maximize yield potential.

**Single Application-** For the control of annual weeds, use 16 to 24 fluid ounces per acre no later than the 6-leaf stage. Avoid overlapping applications, which could result in temporary yellowing, delayed flowering, and/or growth reduction. If more than 16 fluid ounces per acre is applied after the 4-leaf stage, then similar crop injury may result.

**Sequential Application-** To maximize the control of early emerging annual weeds and perennial weeds such as Canola thistle and quackgrass, or when more than one application is needed for difficult to control weeds use sequential applications. Use 16 fluid ounces of this product per acre to 1 to 3-leaf canola. Allow a minimum of 10 days before application, but no later than the 6-leaf stage for the sequential application.

Crop	LIMITATIONS
Roundup Ready Canola (Winter Varieties)	<p>Utilize the annual maximum use rate in the table in this section. For additional information on maximum application rates refer to the "PRODUCT INFORMATION" section of this label.</p> <p>For precautionary instructions regarding the use of this product in Roundup Ready crops refer to the "ROUNDUP READY CROPS" section of this label.</p> <p>Do not apply more than 2 quarts of this product per season for all pre-plant, at-planting and pre-emergence applications combined.</p> <p>Do not apply more than 2 in-crop (over-the-top) broadcast applications from crop emergence up to the onset of bolting. Do not use more than 2 quarts per acre of this product for all in-crop applications. After treatment, allow a minimum of 60 days before canola harvest. There is no waiting period between last application and open grazing of livestock.</p> <p>Use of more than 24 fluid ounces per acre prior to the 6-leaf stage could result in reduced crop growth in the fall.</p> <p>No waiting period is required between application and open grazing of livestock.</p>

A definition of Roundup Ready winter canola is those varieties of Roundup Ready canola that are planted in the fall and harvested in the following spring or summer. These canola varieties are intended to undergo a cold dormancy cycle in the winter.

**Types of applications:** Pre-plant, At-planting, Pre-emergence, Post-emergence (In-crop)

Maximum Applications Rates	Rate qts./Acre
Total of all Pre-plant, At-planting, Pre-emergence applications	2
Total of all In-crop applications from emergence to canopy closure or prior to bolting in the spring	2

**Pre-plant, At-planting, Pre-emergence:** Use this product before, during or after planting Roundup Ready canola

**Post-emergence (In-crop):** Apply this product to winter varieties of Roundup Ready canola from emergence to canopy closure in the fall and prior to bolting in the spring. To minimize crop injury and yield loss, avoid application during bolting or flowering. Eliminate competing weeds early to maximize yield potential.

Use a sequential application of this product for control of weeds with multiple germination times, or suppressed (stunted) weeds, or weeds that have overwintered. Apply the second application after some weed re-growth has occurred. Allow a minimum 60 days before the sequential application.

**Single Application-** When weeds are small and actively growing in the fall, use 24 to 32 fluid ounces of this product per acre. When weeds are dense or overwintered, or large and well established, use the higher rate. For the control of annual weeds, use 16 to 24 fluid ounces of this product per acre no later than the 6-leaf stage. Avoid overlapping applications, which could result in temporary yellowing, and/or growth reduction. If more than 24 fluid ounces per acre is applied after the 6-leaf stage in the fall, then similar crop injury may result

**Sequential Application-** Use 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. Allow a minimum of 60 days between applications but do not apply after bolting in the spring. For best control of early emerging annual weeds and winter emerging weeds such as downy brome, jointed goatgrass and ryegrass, and for weeds that have over wintered, use a sequential application. This product will control or suppress most perennial weeds. To reduce perennial weeds competition with the crop, apply a sequential treatment.

Crop	LIMITATIONS
<b>Roundup Ready Flex Cotton</b>	Utilize the annual maximum use rate in the table in this section. For additional information on maximum application rates refer to the "PRODUCT INFORMATION" section of this label. For precautionary instructions regarding the use of this product in Roundup Ready crops refer to the "ROUNDUP READY CROPS" section of this label.

**The information furnished in this section is specific to and only appropriate for use with varieties designated as Roundup Ready Flex cotton. If application instructions in this section are used on other than Roundup Ready Flex cotton, crop injury and reduced yields will result. DO NOT combine the instructions in this section, with those in the "Roundup Ready Cotton" section of this label, or with any other Roundup Ready cotton or Roundup Ready Flex cotton instructions on labeling for this or any other glyphosate-containing products. Drift of this product from an application made to Roundup Ready Flex cotton onto adjacent fields of post 4-leaf (node) Roundup Ready cotton may cause extensive injury including boll loss, delayed maturity and/or yield loss.**

**Types of applications:** Pre-plant, At-planting, Pre-emergence, Post-emergence (In-crop), Pre-harvest

Maximum Applications Rates	Rate qts./Acre
Combined total per year for all applications	8
Total of all Pre-plant, At-planting, Pre-emergence applications	5
Total of all In-crop applications from cracking to 60 percent open bolls	6
Total of all In-crop applications between layby and 60 percent open bolls	2
Total of all In-crop applications from 60 percent open bolls to 7 days prior to harvest	2
Total of all In-crop applications from emergence through harvest	6

**Pre-plant, At-planting, Pre-emergence:** Use this product before, during or after planting Roundup Ready Flex cotton.

**TANK MIXTURES:** Apply with 2,4-D or Clarity and use prior to planting only. Apply this product to Roundup Ready Flex cotton prior to crop emergence in a tank-mix with the herbicides listed in this section. Check that the partner product used is labeled for application prior to planting or the crop emergence on Roundup Ready Flex cotton. Refer to the partner product label for important information in regards to the use instructions, spray additive requirements, weeds controlled, the size range of weeds that should be treated, and application restrictions including pre-harvest intervals and crop rotation information. Follow the specifications listed on the most restrictive label when planning and applying the tank mixture combination.

[Select the active ingredient(s) or brand name of product(s) for the products listed that are registered on Roundup Ready Flex cotton for use prior to emergence of cotton at the time of printing this label.



Clomazone, diuron, flumioxazin, flumeturon, fomesafen, metolachlor, s-metolachlor, pendimethalin, prometryn, pyriithiobac-sodium

Caparol, Command, Cotoran, Cotto-Pro, Direx, Dual MAGNUM, Dual II MAGNUM, Karmex, Meturon, PARRLAY, Prowl, Prowl H2O, Reflex, Stalwart, Staple, Valor, Zorial]

Do not use more than 5 quarts per acre for all pre-plant, at-planting and pre-emergence applications combined.

**Post-emergence (In-crop):** Apply this product to control annual grasses and broadleaf weeds listed on this label in Roundup Ready Flex cotton. Eliminate competing weeds early to maximize yield potential. Use one or more application of this product to control or suppress many potential perennial weeds. In the first application, use 1 quart per acre to control or suppress small (1 to 3 inch tall) annual grasses and broadleaf weeds. Apply this product by ground equipment post-emergence to Roundup Ready Flex cotton rates at up to 1.5 quarts per acre per application. To achieve more thorough weed coverage, apply with post-directed spray equipment.

**TANK MIXTURES:** Apply this product with herbicides listed in this section in a post-emergence (in-crop) over-the-top of Roundup Ready Flex cotton. Check that the partner product used is labeled for application post-emergence (in-crop) on Roundup Ready Flex cotton. Refer to the partner product label for important information in regards to the use instructions, spray additive requirements, weeds controlled, the size range of weeds that should be treated, and application restrictions including pre-harvest intervals and crop rotation information. Follow the specifications listed on the most restrictive label when planning and applying the tank mixture combination.

[Select the active ingredient(s) or brand name of products(s) for the products listed that are registered for use post-emergence (in-crop) to cotton at the time of printing this label.

Clomazone, fluazifop-P-butyl, fomesafen, metolachlor, s-metolachlor, pyriithiobac-sodium, quizalofop-p-ethyl, sethoxydim, trifloxysulfuron-sodium

Assure II, Dual MAGNUM, Envoke, Fusilade, Poast Plus, Reflex, Select, Select MAX, Stalwart, Staple]

[If the list contains Staple, Dual Magnum, Stalwart add the appropriate advisor statement. Staple may cause leaf yellowing and/or leaf crinkling when applied post-emergence (in-crop) in Roundup Ready Flex cotton. Dual Magnum and Stalwart applied over-the-top of Roundup Ready Flex cotton may cause leaf injury in the form of necrotic spotting.]

Apply this product with herbicides listed in this section in a post-emergence (in-crop) using precision post-directed or hooded sprayers on Roundup Ready Flex cotton. Check that the partner product used is labeled for application post-emergence (in-crop) on Roundup Ready Flex cotton. Refer to the partner product label for important information in regards to the use instructions, spray additive requirements, weeds controlled, the size range of weeds that should be treated, and application restrictions including pre-harvest intervals and crop rotation information. Follow the specifications listed on the most restrictive label when planning and applying the tank mixture combination. This product can be tank-mixed with the following products for in-crop.

[Select the active ingredient(s) or brand name of products(s) for the products listed that are registered for use post-emergence (in-crop) to cotton at the time of printing this label.

Carfentrazone-ethyl, diuron, flumioxazin, fluometuron, linuron, pendimethalin, prometryn, pyriithiobac-sodium, trifloxysulfuron-sodium

Aim, Caparol, Cotoran, Direx, Envoke, Layby-Pro, PARRLAY, Prowl H2O, Staple, Valor]

[If the list contains Staple add the following advisor statement. Staple may cause leaf yellowing and/or leaf crinkling when applied post-emergence (in-crop) in Roundup Ready Flex cotton.]

**LIMITATIONS:**

Do not use more than 1.5 quarts of this product in a single, in-crop application to RoundUp Ready Flex cotton using ground application equipment.

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In-crop applications of this product greater than 1 quart per acre, either alone or with additional cotton products containing surfactant may cause a crop response such as leaf speckling or leaf necrosis.

Do not use more than 1 quart of this product per acre in aerial applications.  
Do not use more than 2 quarts of this product per acre between layby and 60% open bolls.  
Do not use more than 6 quarts of this product for all combined applications from crop emergence to 60% open bolls.

**DO NOT ADD ADDITIONAL SURFACTANT OR ADDITIVES CONTAINING SURFACTANT TO THIS PRODUCT FOR OVER-THE-TOP APPLICATION TO ROUNDUP READY FLEX COTTON.**

**Pre-harvest:** Use this product on Roundup Ready Flex cotton up to 2 quarts per acre for annual and perennial weed control prior to harvest after 60 % boll crack.

**NOTE:** When applied to Roundup Ready Flex cotton, this product will not enhance the performance of harvest aids.

**LIMITATIONS:** After treatments, allow a minimum of 7 days before harvest.

**DO NOT ADD ADDITIONAL SURFACTANT OR ADDITIVES CONTAINING SURFACTANT TO THIS PRODUCT FOR PRE-HARVEST APPLICATION TO ROUNDUP READY FLEX COTTON.**

**IMPORTANT USE OF THIS PRODUCT IN ACCORDANCE WITH THE LABEL DIRECTIONS IS EXPECTED TO RESULT IN NORMAL GROWTH OF ROUNDUP READY FELX COTTON. HOWEVER, DUE TO THE SENSITIVITY OF COTTON FRUITING TO VARIOUS ENVIRONMENTAL CONDITIONS, AGRONOMIC PRACTICES AND OTHER FACTORS, IT IS 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.**

Crop	LIMITATIONS
Roundup Ready Sugar Beet	<p>Utilize the annual maximum use rate in the table in this section. For additional information on maximum application rates refer to the "PRODUCT INFORMATION" section of this label.</p> <p>Refer to the "ANNUAL WEEDS RATE SECTION" and "PERENNIAL WEEDS RATE SECTION" of this label for application rates for specific weeds.</p> <p>For precautionary instructions regarding the use of this product in Roundup Ready crops refer to the "ROUNDUP READY CROPS" section of this label.</p> <p>Do not apply more than 8 quarts of this product per acre per season for combined total of all applications.</p> <p>Do not use more than 4.5 quarts of this product for all combined applications from crop emergence through harvest.</p> <p>Do not use more than 1.5 quarts of this product per acre for any single application from crop emergence until the 8-leaf stage.</p> <p>Do not use more than 1 quart of this product per acre for any single application between the 8-leaf stage and canopy closure.</p> <p>After treatment, allow a minimum of 30 days before sugar beet harvest. Tanks mixtures of this product with other herbicides, insecticides, or fungicides may result in crop injury or reduced weed control.</p>
<b>Types of applications:</b> Pre-plant, At-planting, Pre-emergence, Post-emergence (In-crop)	

Maximum Applications Rates	Rate qts./Acre
Combined total per year for all applications	8
Total of all Pre-plant, At-planting, Pre-emergence applications	5
Total of all applications made from emergence through the 8-leaf stage	2.5
Total of all applications made after the 8-leaf stage and up to canopy closure	2

**Pre-plant, At-planting, Pre-emergence:** Apply this product may be applied before, during or after planting Roundup Ready sugar beet.

**TANK MIXTURES:** Apply this product with herbicides listed in this section in a post-emergence (in-crop) over-the-top of Roundup Ready sugar beet. Check that the partner product used is labeled for application prior to emergence of sugar beet. Refer to the partner product label for important information in regards to the use instructions, spray additive requirements, weeds controlled, the size range of weeds that should be treated, and application restrictions including pre-harvest intervals and crop rotation information. Follow the specifications listed on the most restrictive label when planning and applying the tank mixture combination.

[Select the active ingredient(s) or brand name of products(s) for the products listed that are registered for use pre-plant, at-planting, and/or pre-emergence to sugar beet at the time of printing this label.

Ethofumesate

Norton SC

**Post-emergence (In-crop):** Use this product over-the-top of Roundup Ready sugar beet for control of annual grasses and broadleaf weeds from emergence to 30 days prior to harvest. To maximize yield potential, eliminate competing weeds early. Use up to 4 sequential applications of this product to achieve desired level control. Allow 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.

**TANKS MIXTURES:** Apply this product with herbicides listed in this section in a post-emergence (in-crop) over-the-top of Roundup Ready sugar beet. Check that the partner product used is labeled for application post-emergence (in-crop) on Roundup Ready sugar beet. Refer to the partner product label for important information in regards to the use instructions, spray additive requirements, weeds controlled, the size range of weeds that should be treated, and application restrictions including pre-harvest intervals and crop rotation information. Follow the specifications listed on the most restrictive label when planning and applying the tank mixture combination.

[Select the active ingredient(s) or brand name of products(s) for the products listed that are registered for use post-emergence (in-crop) to sugar beet at the time of printing this label.

Clethodim, clopyralid, desmedipham, dimethenamid, ethofumesate, s-metolchlor, phenmedipham, quizalofop-p-ethyl, trisulfuron-methyl

Assure II, Betamix, Betanex, Dual MAGNUM, Norton SC, Outlook, Progress, Select, Slinger, Upbeet]

[If the list contains Betamix, Betanex, Norton SC and Progress add the following advisor statement. Betamix, Betanex, Norton SC and Progress can cause significant sugar beet injury. Refer to these product labels for crop injury precautions.]

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**IMPORTANT: READ BEFORE USE**

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

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

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

**DISCLAIMER OF WARRANTIES:** To the extent consistent with applicable law, ACETO AGRICULTURAL CHEMICALS CORPORATION MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, THAT EXTEND BEYOND THE STATEMENTS MADE ON THIS LABEL. No agent of Aceto Agricultural Chemicals Corporation is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. To the extent consistent with applicable law, ACETO AGRICULTURAL CHEMICALS CORPORATION DISCLAIMS ANY LIABILITY WHATSOEVER FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

**LIMITATIONS OF LIABILITY:** To the extent consistent with applicable law, THE EXCLUSIVE REMEDY OF THE USER OR BUYER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, SHALL NOT EXCEED THE PURCHASE PRICE PAID, OR AT ACETO AGRICULTURAL CHEMICALS CORPORATION'S ELECTION, THE REPLACEMENT OF PRODUCT.