Monsanto

Roundup® Original

HERBICIDE

Complete Directions for Use

Avoid Contact of Herbicide with Foliage, Green Stems, Exposed Non-Woody Roots or Fruit of Crops (Except as Specified for Individual Roundup Ready® Crops), Desirable Plants and Trees, Because Severe Injury or Destruction May Result.

Not all products recommended on this label are registered for use in California. Check the registration status of each product in California before using.

Read the entire label before using this product.

Use only according to label instructions. It is a violation of Federal law to use this product in any manner inconsistent with its labeling.

Read the “LIMIT OF WARRANTY AND LIABILITY” statement at the end of the label before buying or using. If terms are not acceptable, return at once unopened.

This is an end-use product. This company does not intend and has not registered it for reformulation. See Individual Container Label for Repackaging Limitations.

1.0 INGREDIENTS

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

Other ingredients ........................................ 59.0%

* Contains 480 grams per litre or 4 pounds per U.S. gallon of the active ingredient.

EPA Reg. # 524-445

No license granted under any non-U.S. patent(s).

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21154B4-1/CNG

2.0 IMPORTANT PHONE NUMBERS

1. FOR PRODUCT INFORMATION OR ASSISTANCE IN USING THIS PRODUCT, CALL TOLL-FREE, (1-800)-332-3111.

2. IN CASE OF AN EMERGENCY INVOLVING THIS HERBICIDE PRODUCT, OR FOR MEDICAL ASSISTANCE, CALL COLLECT, DAY OR NIGHT, (314)-694-4000.

3.0 PRECAUTIONARY STATEMENTS

3.1 Hazards to Humans and Domestic Animals

KEEP OUT OF REACH OF CHILDREN! AVISO!

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

CAUSES SUBSTANTIAL BUT TEMPORARY EYE INJURY. HARMFUL IF SWALLOWED OR INHALED.

Do not get in eyes or on clothing.

Avoid breathing vapor or spray mist.

FIRST AID:

Call a poison control center or doctor for treatment advice.

IF IN EYES

Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses if present after the first 5 minutes and continue rinsing eye.

IF INHALED

Remove individual to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.

IF SWALLOWED

Immediately dilute by swallowing water or milk. Get medical attention. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

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

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- long-sleeved shirt and long pants, special gloves, face mask and protective eyewear.

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

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in 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 or touching any other parts of the body.

- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

3.2 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.

3.3 Physical or Chemical Hazards

Spray solutions of this product should 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.

DIRECTIONS FOR USE

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

This product can only be used in accordance with the Directions for Use on this label or in separately published Supplemental Labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or by 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 with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses.

Must use this product in accordance with 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 (EPA Designation Category A) 8 miles in thickness or greater composed of materials such as butyl rubber, natural rubber, neoprene rubber, or nitrile rubber, shoes plus socks and protective eyewear.

Non-Agricultural Use Requirements

The requirements in this box 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 12 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, and/or water:

- coveralls, chemical resistant gloves (EPA Designation Category A) 8 miles in thickness or greater composed of materials such as butyl rubber, natural rubber, neoprene rubber, or nitrile rubber,

Waste resulting from the use of this product that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticide disposal or in accordance with applicable Federal, state, or local procedures.

4.0 STORAGE AND DISPOSAL

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

Keep container closed to prevent spills and contamination.

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5.0 GENERAL INFORMATION

Product Description: This product is a post-emergent, systemic herbicide with no soil residual activity. It is generally non-selective and gives broad-spectrum control of many annual weeds, perennial weeds, woody brush and trees. It is formulated as a water-soluble liquid. 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.

Time to Symptoms: This product moves through the plant from the point of foliage contact and into the root system. Visible effects on most annual weeds occur within 2 to 4 days, but on most perennial weeds may not occur for 7 days or more. Extremely cool or cloudy weather following treatment may slow activity of this product and delay development of visual symptoms. Visible effects are 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 WEEDS’’ and ‘‘WOODY BRUSH AND TREES RATE TABLES’’ for recommendations for specific weeds.

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

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

Cultural Considerations: Reduced control may result when applications are made too late or on weeds that have been mowed, grazed or cut, and have not been allowed to regrow to the recommended stage for treatment.

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

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

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

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

Degradation of this product is primarily a biological process carried out by soil microorganisms.

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

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

When this label recommends a tank mixture with a generic active ingredient such as diuron, atrazine, 2,4-D, or dicamba, the user is responsible for ensuring that the mixture product’s label allows the specific application.

Annual Maximum Use Rate: Except as specifically specified in a crop section of this label, the combined total of all treatments must not exceed 8 quarts of this product per acre per year. For 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.

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.

Spray Solution

<table>
<thead>
<tr>
<th>Desired Volume</th>
<th>0.5%</th>
<th>1%</th>
<th>1.5%</th>
<th>2%</th>
<th>5%</th>
<th>10%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 gal</td>
<td>0.7 oz</td>
<td>1.3 oz</td>
<td>2 oz</td>
<td>2.7 oz</td>
<td>6.5 oz</td>
<td>13 oz</td>
</tr>
<tr>
<td>25 gal</td>
<td>1 pt</td>
<td>1 qt</td>
<td>1.5 qt</td>
<td>2 qt</td>
<td>5 qt</td>
<td>10 qt</td>
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<tr>
<td>100 gal</td>
<td>2 qt</td>
<td>1 gal</td>
<td>1.5 gal</td>
<td>2 gal</td>
<td>10 gal</td>
<td></td>
</tr>
</tbody>
</table>

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

6.4 Surfactants

Nonionic surfactants (NIS) or wetting agents that 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 cautionary statements and other information appearing on the additives label.

When adding additional surfactant, use 0.5 percent surfactant concentration (2 quarts per 100 gallons of spray solution) when using surfactants that contain at least 70 percent active surfactant, or a 1 percent surfactant concentration (4 quarts per 100 gallons of spray solution) for those surfactants containing less than 70 percent active surfactant.

6.5 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 or surfactants. Thoroughly rinse the spray system with clean water after to reduce corrosion.

NOTE: When using ammonium sulfate, apply this product at rates recommended in this label. Lower rates will result in reduced performance. The use of ammonium sulfate as an additive does not preclude the need for additional surfactant.

6.6 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 recommendations.

6.7 Drift Reduction Additives

Drift reduction additives may be used with all equipment types, except wiper applicators, spray bars and Controlled Droplet Applicator (CDA) equipment. When a drift reduction additive is used, read and carefully observe the cautionary
7.0 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 couplers and other ground broadcast equipment.
- **Hand-Held or High-Volume Spray Equipment**—Knapsack and backpack sprayers, shielded sprayers, hoods, mistblowers*, lances and other hand-held and motorized spray equipment used to direct the spray onto weed foliage.

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

**Selective Equipment**—Recirculating sprayers, shielded and hooded sprayers, wiper applicators, shielded sprayers, hooded sprayers, wiper bars, after dilution and organic coating (paint), which meets aerospace specification MIL-C-38413, may be used on the herbicide solution.

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

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

**Spray Drift Management**

**Do not use** AERIAL SPRAY EQUIPMENT EXCEPT UNDER CONDITIONS AS SPECIFIED WITHIN THIS LABEL.

Use the recommended 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 recommended equipment and application rates.

FOR AERIAL APPLICATION IN CALIFORNIA OR SPECIFIC COUNTIES THEREIN, OR ARKANSAS, REFER TO THE FEDERAL SUPPLEMENTAL LABEL FOR AERIAL APPLICATIONS IN THAT STATE OR COUNTY FOR SPECIFIC INSTRUCTIONS, RESTRICTIONS AND REQUIREMENTS.

This product plus dicamba tank mixtures may not be applied by air in California. Use the recommended 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 recommended equipment and application rates.

For aerial application, use AERIAL SPRAY DRIFT MANAGEMENT.

Avoid drift. Extreme care must be used when applying this product to prevent injury to desirable plants and crops.

Do not allow the herbicide solution to mist, drip, drift or splash onto desirable vegetation since minute quantities of this product can cause severe damage or destruction to the tissue or other areas on which treatment was not intended. 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.

7.1 Aerial Equipment

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

Use the recommended 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 recommended application rates and spray volumes.

FOR AERIAL APPLICATION IN CALIFORNIA OR SPECIFIC COUNTIES THEREIN, OR ARKANSAS, REFER TO THE FEDERAL SUPPLEMENTAL LABEL FOR AERIAL APPLICATIONS IN THAT STATE OR COUNTY FOR SPECIFIC INSTRUCTIONS, RESTRICTIONS AND REQUIREMENTS. This product plus dicamba tank mixtures may not be applied by air in California.

7.2 Ground Broadcast Equipment

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

7.3 Hand-Held or High-Volume Equipment

Apply to foliage of vegetation to be controlled. For applications made on a spray-to-wet basis, spray coverage should be uniform and complete. Do not spray to the point of runoff. Use coaxial sprays only. For recommended rates and timing, refer to the “ANNUAL WEEDS—Hand-Held or High-Volume Equipment” section of this product label.

7.4 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, when listed under “TYPES OF APPLICATION” in the crop sections of this product’s labeling. Such equipment must be capable of preventing all crop contact with herbicide solutions and operated without leakage of spray mist or dripping onto crop. Wipers over-the-top of crops may be used only when specifically recommended 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. Applications used above desirable vegetation should be adjusted so that the lowest spray stream or wiper contact point is at least 2 inches above desirable vegetation. Droplets, foam, and splatter of the herbicide solution settling on desirable vegetation may result in discoloration, stunting or destruction. Applications made above the crops should 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 the height of the weeds varies so that not all weeds are contacted. In these instances, repeat treatment 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 applicators, this product at recommended rates will contribute to AVOID CONTACT OF HERBICIDE WITH DESIRABLE VEGETATION. This equipment must be set up and operated in a manner that avoids browning 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 recommended. Spray volume should 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 should be 30 inches.
- Maximum tractor speed: 5 miles per hour to avoid browning of the spray hoods.
- Maximum wind speed: 10 miles per hour.
- Use low-drift nozzles that provide uniform coverage within the treated area.

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

Wiper Applicators

When applied under the conditions described in the following paragraphs, this product CONTROLS many weeds, including volunteer corn, Texas panicum, common pigweed, shattersone, sicklepod, slenderleaf pigweed, and bristly starbur; and SUP-PRESSES many weeds, including Florida broadleaf, Bermudagrass, hemp dog-bane, dogfennel, guineaegrass, johnsongrass, milkweed, silverleaf nightshade, red-root pigweed, giant ragweed, smutgrass, sunflower, Canada thistle, musk thistle, vetchgrass, and vervain.

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 miles per hour. Performance may be improved by reducing speed in areas where poor leaf penetration is expected. Better results may be obtained if two applications are made in opposite directions.

Avoid leakage or dripping onto desirable vegetation. Adjacent 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.

For Rope or Sponge Wick Applicators—Solutions ranging from 33 to 75 percent of this product in water may be used. Apply this solution to weeds listed in this section.

For Panel Applicators—Solutions ranging from 33 to 100 percent of this product in water may be used in panel wiper applicators.

7.5 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 use this product with the concentrate of other products when using injection systems.

7.6 CDA Equipment

The rate of this product applied per acre by vehicle-mounted CDA equipment must not be less than the amount recommended in this label when applied by conventional broadcast equipment. For vehicle-mounted CDA equipment up to 2 quarts per acre.

For the control of annual weeds with hand-held CDA units, apply a 20 percent solution of this product at a flow rate of 2 fluid ounces per minute and a walking speed of 1.5 miles per hour (1 quart per acre). For the control of perennial weeds, apply a 20 to 40 percent solution of this product at a flow rate of 2 fluid ounces per minute and a walking speed of 0.75 miles per hour (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 green tissue of desirable vegetation, as damage or destruction may result.

8.0 ANNUAL AND PERENNIAL CROPS

(Agricultural)

NOTE: This section gives general directions that apply to all listed crops within section 8 grouped alphabetically below. See the individual crop categories for specific instructions, preharvest intervals, and additional precautions.

Shielded and Hooded Systems

See the “ROUNDUP READY CROPS” section of this label or separately published Supplemental Labeling for instructions for treating Roundup Ready crops.

Types of Applications: Chemical Fallow, Preplant Fallow Beds, Preplant, Preemergence, At-Planting, Hooded Sprayers in Row-Middles, Shielded Sprayers in Row-Middles, Wiper Applications in Row-Middles, and Post-Harvest Treatments.

General Use Instructions:

Apply this product during fallow intervals preceding planting, prior to transplanting, at-planting, or preemergent 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 WEEDS”, “PERENNIAL WEEDS”, and “WOODY BRUSH AND TREES RATE TABLES” sections of 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 plant 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 where certain crops are listed 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 sulfochlor as the active ingredient, whether applied as mixtures or separately.

Calculate the application rates and ensure that the total use of this herbicide and sulfochlor containing products does not exceed stated maximum use rate.

General 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 preemergence and at-planting applications, applications must be made before crop emergence to avoid severe crop injury. Broadcast applications made at emergence will result in injury or death to emerged seedlings. Apply before seed germination in coarse sandy soils to further minimize the risk of injury. Unless otherwise specified in this product’s labeling, treatments with selective equipment including wipers and hooded sprayers must be made at least 14 days prior to harvest. Post-harvest or fallow applications must be made at least 30 days prior to planting any non-labeled crop. See “APPLICATION EQUIPMENT AND TECHNIQUES” section of this label for additional information.

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 reasons.

For broadcast postemergent treatments, do not harvest or feed treated vegetation for 8 weeks following application, unless otherwise specified.

8.1 Cereal and Grain Crops

Labered Crops: Barley, Buckwheat, Millet (pearl, proso), Oats, Rice, Rye, Quinoa, Teff, Teosinte, Triticale, Wheat (all types), Wild Rice.

Precautions, Restrictions: Do not apply until 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 reasons.

For broadcast postemergent treatments, do not harvest or feed treated vegetation for 8 weeks following application, unless otherwise specified.

8.2 Preplant, Preemergence, 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. Flux fields prior to application to obtain uniform germination and stand of red rice. Make application when the majority of the red rice plants are visible. Apply in the 2-leaf stage of the rice seedling. 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 prior to heading in small grains.

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

Over-the-Top Wiper Applicators (Feed Barley and Wheat only)

USE INSTRUCTIONS: Wiper applications may be used in feed barley and wheat. To control common rye or cereal rye, apply after the weeds have headed and achieved maximum growth, and 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.

Preharvest (Feed Barley and Wheat only)

USE INSTRUCTIONS: This product provides weed control when applied prior to harvest of wheat or feed barley. For wheat, apply after the hard-dough stage of grain (30 percent or less grain moisture). For feed barley, apply after the hard-dough stage and when the grain contains 20 percent 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 at least 7 days between application and harvest, feeding or grazing. Preharvest application is not recommended for 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 which were growing in the crop at the time of harvest. Tank mixes with 2,4-D or dicamba may be used. For Roundup Ready corn, see the “ROUNDUP READY CROPS” section of this label.

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.

8.2 Corn

TYPES OF CORN: Field Corn, Seed Corn, Silage Corn, Sweet Corn and Popcorn.

USE INSTRUCTIONS: Those listed in Section 8.0 plus the following: Preharvest.

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

Preplant, Preemergence, 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.

TANK MIXTURES: This product may be tank mixed with the following products that provide the specific product is registered for application prior to planting corn. Apply these tank mixtures in 10 to 20 gallons of water per acre.

Captor®

Clarity®

Command

Dollar®

Coton®

Cotton-Pro®

PRECAUTIONS/RESTRICTIONS: Refer to individual product labels for rates, restrictions, precautionary statements and preplant intervals.

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. Applications must be made prior to emergence of the crop. TANK MIXTURES: This product may be tank mixed with the following products provided that the specific product is registered for application prior to planting cotton. Apply these tank mixtures in 10 to 20 gallons of water per acre.

Captor®

Clarity®

Command

Coton®

Cotton-Pro®

PRECAUTIONS/RESTRICTIONS: See the “APPLICATION EQUIPMENT AND TECHNIQUES” section of this label. Applications must be made prior to emergence of the crop. TANK MIXTURES: This product may be tank mixed with the following products provided that the specific product is registered for application prior to planting cotton. Apply these tank mixtures in 10 to 20 gallons of water per acre.

Preharvest

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

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

Hooded Sprayer Applications

USE INSTRUCTIONS: This product may be applied through hooded sprayers for weed control between the rows of corn. Only hooded sprayers that completely enclose the spray pattern may be used. See additional instruction for the use of hooded sprayers in the “APPLICATION EQUIPMENT AND TECHNIQUES” 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 vegetation to which treatment is not intended may cause damage. Such damage shall be the 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.

Post Treatment

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

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

Post-Harvest

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

PRECAUTIONS, RESTRICTIONS: Allow a minimum of 7 days between application and harvest, feeding or grazing. Preharvest application is not recommended for corn grown for seed, as a reduction in germination or vigor may occur.

8.3 Cotton

TYPES OF APPLICATIONS: Those listed in Section 8.0 plus the following: Selective Equipment, Spot Treatment, Preharvest.

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

Preplant, Preemergence, At-Planting

USE INSTRUCTIONS: This product may be applied alone or in tank-mixture, before, during or after planting cotton. Applications must be made prior to emergence of the crop.

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

TANK MIXTURES: This product may be tank mixed with the following products that provided the specific product is registered for application prior to planting cotton. Apply these tank mixtures in 10 to 20 gallons of water per acre.

Captor®

Clarity®

Command

Coton®

Cotton-Pro®

PRECAUTIONS/RESTRICTIONS: Refer to individual product labels for rates, restrictions, precautionary statements and preplant intervals.

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. Applications must be made prior to emergence of the crop. TANK MIXTURES: This product may be tank mixed with the following products provided that the specific product is registered for application prior to planting cotton. Apply these tank mixtures in 10 to 20 gallons of water per acre.

Preharvest

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 WEEDS”, “PERENNIAL WEEDS” and “WOODY BRUSH AND TREES RATE TABLES” sections 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 bulbs have developed to produce the desired yield of cotton. Applications made prior to this time could affect maximum yield potential.

TANK MIXTURES: This product may be tank mixed with DEF®, 6 Folox®, Ginstar®, or Prep® to provide additional enhancement of cotton leaf drop.

PRECAUTIONS, RESTRICTIONS: Allow a minimum of 7 days between application and harvest of cotton. Preharvest application is not recommended for cotton grown for seed, as a reduction in germination or vigor may occur. THE USE OF ADDITIVES FOR PREHARVEST APPLICATION OF THIS PRODUCT TO COTTON IS PROHIBITED.

8.4 Fallow Systems

Labeled Crops: This product may be applied during the fallow period prior to planting or emergence of any crop on this label.

TYPES OF APPLICATIONS: Chemical Fallow, Prefallow 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 mixes with 2,4-D or 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 mixes by air in California.

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

Preplant Fallow Beds

USE INSTRUCTIONS: This product may be applied to fallow beds prior to planting or emergence of brother in grasses up to 6 inches tall. For crops 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 WEEDS”, “PERENNIAL WEEDS”, and “WOODY BRUSH AND TREES RATE TABLES” sections of this label.

TANK MIXTURES: In addition, 12 fluid ounces of this product plus 2 to 3 fluid ounces of Goal® 2XL per acre will control the following weeds with the maximum height or length indicated: 3 inches—common cheeseweed, chickweed, groundsel; 6 inches—London rocket, shepherd’s-purse.

Preharvest

USE INSTRUCTIONS: This product may be applied during the fallow period prior to planting or emergence of brother in grasses up to 6 inches tall. For crops not listed on this label, applications must be made at least 30 days prior to planting.

POST-HARVEST: 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 WEEDS”, “PERENNIAL WEEDS”, and “WOODY BRUSH AND TREES RATE TABLES” sections of this label.

TANK MIXTURES: In addition, 12 fluid ounces of this product plus 2 to 3 fluid ounces of Goal® 2XL per acre will control the following weeds with the maximum height or length indicated: 6 inches—common cheeseweed, groundsel, marestail (Conyza canadensis), 12 inches—chickweed, London rocket, shepherd’s-purse.

Aid-to-Tillage

USE INSTRUCTIONS: This product may be used in conjunction with tillage practices or preplant or preemergence applications to control crops to control over a broadleaf, 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 the recommended 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.

8.5 Grain Sorghum (Milo)

TYPES OF APPLICATIONS: Those listed in Section 8.0 plus the following: Spot Treatment, Over-the-Top Wiper Applications, Preharvest.

Preplant, Preemergence, At-Planting

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

TANK MIXTURES: This product may be tank mixed with the following products provided that the specific product is registered for application prior to planting grain sorghum. 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

Lasso

For difficult-to-control annual weeds such as fall paniceum, barnyardgrass, crabgrass, shattercane, and broadleaf species 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, 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 Application” 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 if 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 “APPLICATION EQUIPMENT AND TECHNIQUES” section of this label.

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

PRECAUTIONS, RESTRICTIONS: Milo must be at least 12 inches tall, measured without leaving untreated 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 application and no more than 3 quarts per acre per year for hooded sprayer applications.

Preharvest

USE INSTRUCTIONS: Make applications at 30 percent 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 preharvest applications of this product to milo infected with charcoal rot as lodging can occur. Allow a minimum of 7 days between application and harvest, feeding, or grazing of sorghum. Preharvest application is not recommended for sorghum grown for seed, as a reduction in germination or vigor may occur. The use of this product for preharvest grain sorghum (milo) is not registered in California.

Post-Harvest

USE INSTRUCTIONS: This product may be applied after harvest of grain sorghum. Higher rates may be required for control of large weeds which were growing in the crop at the time of harvest. Tank mixes 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 or harvest or feeding of treated vegetation.

Herbs and Spices

LABELED CROPS: Alfalfa, Angelica, Star anise, Anannato (seed), Balm, Basil, Borago, Burnet, Camomile, Caper buds, Caraway, Black caraway, Cardamom, Cassia bark, Cassia buds, Catnip, Celery seed, Cherivil (dried), Chive, Chinese chive, Cinnamon, Clary, Clove buds, Coriander leaf (cilantro or chinese parsley), Dill, Dill seed, Dill weedy, Dill weedy (duckweed), Dulce (lemon), Eucalyptus, Fennel, Fenugreek, Fenugreek, Ginger, Lemongrass, Lovage (leaf and seed), Mace, Marigold, Marjoram (including oregano), Mexican oregano, Mexican sorrel, Milk thistle, Mustard (seed), Mustard (seed), Nasturtium, Nutmeg, Parsley (dried), Pennyroyal, Pepper (black and white), Pepper leaves, Peppermint, Perilla, Poppy (seed), Rosemary, Rue, Saffron, Sage, Savory (summer and winter), Spearmint, Stevia leaves, Sweet bay, Tansy, Tarragon, Thyme, Vanilla, Wintergreen, Woodruff, Wormwood.

TYPES OF APPLICATIONS: Those listed in Section 8.0 plus the following: Over-the-Top Wiper Applications (Peppermint and Spearmint only), Spot Treatments (Peppermint and Spearmint only).

PRECAUTIONS, RESTRICTIONS: When applying this product prior to transplanting or direct-seeding crops into plastic mulch, care must be taken to remove residue of this product which could cause crop injury, from the plastic prior to planting. Residues can be removed by a single 0.5-inch application of water, either by natural rainfall or via a sprinkler system. Care should be taken to ensure that the water flushes off the plastic mulch and does not enter the transplant holes. For some crops below, it is recommended to make applications 3 days before transplanting or planting.

Over-the-Top Wiper Applications or Spot Treatments (Peppermint and Spearmint only)

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 which could cause crop injury, from the plastic prior to planting. Residues can be removed by a single 0.5-inch application of water, either by natural rainfall or via a sprinkler system. Care should be taken to ensure that the water flushes off the plastic mulch and does not enter the transplant holes. For some crops below, it is recommended to make applications 3 days before transplanting or planting.

8.7 Oil Seed Crops

LABELED CROPS: Borage, Buffalo gourd (seed), Canola, Crambe, Flax, Jojoba, Linseed, Meadowfoam, Mustard (seed), Rape, Sunflower, Sesame, Sunflower.

For Roundup Ready canola, see the “ROUNDUP READY CROPS” section of this label.

TYPES OF APPLICATIONS: Those listed in Section 8.0.

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

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

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

**8.8 Soybeans**

**TYPES OF APPLICATIONS:** Those listed in Section 8.0 plus the following: Spot Treatment, Preharvest, Selective Equipment.

**Preplant, Preemergence, At-Planting**

**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.

**TANK MIXTURES:** Apply these tank mixtures in 10 to 20 gallons of water per acre.

<table>
<thead>
<tr>
<th>Product</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dual MAGNUM</td>
<td>1 pt</td>
</tr>
<tr>
<td>Micro-Tech</td>
<td>1 qt</td>
</tr>
<tr>
<td>Lasso</td>
<td>1 qt</td>
</tr>
<tr>
<td>Linex</td>
<td>1 qt</td>
</tr>
<tr>
<td>Lorox/Linuron</td>
<td>1 pt</td>
</tr>
<tr>
<td>Lorox Plus®</td>
<td>1 qt</td>
</tr>
<tr>
<td>Micro-Tech</td>
<td>1 qt</td>
</tr>
</tbody>
</table>

This product may be tank mixed with 2,4-D or 2,4-DB provided that the specific product is registered for application prior to planting soybeans. See the 2,4-D label for intervals between application and planting.

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.

**PRECAUTIONS, RESTRICTIONS:** Tank mixtures with some of the above listed herbicides may result in reduced weed control due to antagonism. Read and carefully observe the cautionary statements and all other information appearing on the product labels, supplemental labeling or fact sheets published separately for all herbicides used. Use according to the most restrictive directions for each product in the mixture.

**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 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.

**Preharvest**

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

**APPLICATION:** Apply at rates given in the “ANNUAL WEEDS”, “PERENNIAL WEEDS” 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 should 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 preharvest applications. Do not apply more than 2 quarts per acre of this product by air. Allow a minimum of 7 days between application and harvest of soybeans. Do not graze or harvest treated hay or fodder for livestock feed within 25 days of last preharvest application. (If the application rate is 1 quart per acre or lower, the grazing restriction is reduced to 14 days after last preharvest application.) Preharvest application is not recommended 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, over-the-top 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.

**8.9 Sugarcane**

**TYPES OF APPLICATIONS:** Those listed in Section 8.0

**Preplant, Preemergence, At-Planting**

**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 percent solution of this product in water and spray-to-wet the foliage of vegetation to be controlled. Volunteer or diseased sugarcane should have at least 7 new leaves.

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

**Fallow Treatments**

**USE 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 tilling. Ground or aerial applications 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 the 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 into 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.

**8.10 Vegetable Crops**

**NOTE:** This ‘‘VEGETABLE CROPS’’ SECTION GIVES GENERAL DIRECTIONS THAT APPLY TO ALL LISTED VEGETABLE CROPS WITHIN SECTION 8.10. GROUPED ALPHABETICALLY BELOW. SEE THE INDIVIDUAL CROP CATEGORIES FOR SPECIFIC INSTRUCTIONS, PREHARVEST INTERVALS, PRECAUTIONS AND RESTRICTIONS.

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

**PRECAUTIONS, 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 could cause crop injury, from the plastic prior to planting. Residues can be removed by a single 0.5-inch application of water, either by natural rainfall or via a sprinkler system. Care should be taken to ensure that the water flushes off the plastic mulch and does not enter the transplant beds. Applications made at emergence will result in injury or death to emerged seedlings. Avoid contact of herbicide with foliage, green shoots or stems, bark, exposed roots (including those emerging from plastic mulch), or fruit of crops because severe injury or destruction may result. When making preemergence and at planting applications, application equipment must be selected to prevent severe injury or destruction. If severe injury or destruction occurs, the label specifies in this product’s labeling, treatments with selective equipment including wipers and hooded sprayers must be made at least 14 days prior to harvest. Post-harvest or fallow applications must be made at least 30 days prior to planting any non-labeled crop. See “APPLICATION EQUIPMENT AND TECHNIQUES” section of this label for additional information.

**8.10.1 Brassica Vegetables**

**LABELED CROPS:** Broccoli, Chinese broccoli (gai lon), Broccoli raab (rapini), Brussels sprouts, Cabbage, Chinese cabbage (koh choi), Chinese cabbage (napa), Chinese mustard cabbage (gai choi), Cauliflower, Cavoalo broccoli, Collards, Kale, Pak choi, Brussel sprouts, Choy sum, Mustard greens, Mustard spinach, Rape greens.

**8.10.2 Bulb Vegetables**

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

**8.10.3 Cucurbit Vegetables and Fruits**

**LABELED CROPS:** Chayote (fruit), Chinese waxgourd (Chinese preserving melon), Citron melon, Cucumber, Gherkin, Edible gourd (includes hyotan, cucuzza, hechima, Chinese okra), Melons (all), Morinda spp (includes balsam apple, balsam pear, bittermelon, Chinese cucumber), Muskmelon (includes cantaloupe, casaba, crenshaw melon, golden pears, honeydew melon, honey ball melon, mango melon, Persian melon, pineapple melon, Santa Claus melon, snake melon), Pumpkin, Summer squash (includes crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini), Winter squash (includes butternut squash, cullizzia, Ground squash, apple squash, spaghetti squash), Watermelon.

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

LABELED CROPS: Amaranth (Chinese spinach), Arugula (roquette), Beet greens, Cardoon, Cervil, Chinese cabbage, Chinese celery, Chinese kale, Chinese mustard, Chinese pak choi, Chinese spinach, Cyanthium, Garland chrysanthemum, Corn salad, Cress (garden and upland), Dandelion, Dock (sorrel), Dokudami, Endive (escarole), Florence fennel, Cow kee, Lettuce (head and leaf), Orach, Parsley, Purslane (garden and winter), Radicchio (red chicory), Rhusbath, Spinach, New Zealand spinach, Vine spinach, Swiss chard, Watercress (upland), Water spinach.

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

8.10.5 Fruiting Vegetables

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

PRECAUTIONS, RESTRICTIONS: For Eggplant, Ground cherry, Pepper (all), and Tomatillo, allow at least 3 days between application and planting. For Tomato, hooded or shielded sprayer applications in row middles are not recommended.

8.10.6 Legume Vegetables (Succulent or Dried)

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

8.10.7 Root and Tuber Vegetables

LABELED CROPS: Arracacha, Arrowroot, Chinese artichoke, Jerusalem artichoke, Beet (garden), Burdock, Canna, Carrot, Cassava (bitter and sweet), Celeriac, Chayote (root), Chervil (turnip-rooted), Chicory, Chufa, Daikon (taro), Galangal, Ginger, Horseradish, Lily, Kava (turnip-rooted), Parsley (turnip-rooted), Parsnip, Potato, Radish, Oriental radish, Rutabaga, Salsify, Salsify, Spanish salsify, Skirret, Sweet potato, Tatarian, Turnip, Wasabi, Yacon, Yam bean, True yam.

Directed Applications (Non-bearing Ginseng only)

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

PRECAUTIONS, RESTRICTIONS: Direct applications so that there is no contact of this product with the ginseng plant. Applications must be made at least one year prior to harvest.

Over-the-Top Wiper Applications (Rutabagas only)

USE INSTRUCTIONS: Wiper applicators may be used over-the-top of rutabagas.

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

8.11 Miscellaneous Crops

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

TYPES OF APPLICATIONS: Those listed in Section 8.0 plus the following: General Weed Control, Preplant and Spot Treatment (Asparagus), Post-Harvest (Asparagus).

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 death may result. When making preemergence and at planting applications, applications must be made before crop emergence to avoid severe crop injury. Broadcast applications made at emergence will result in injury or death to emerged seedlings. In crops with vines, hooded sprayer, shielded sprayer, and wiper application to row middles should be made prior to vine development otherwise severe injury or destruction may result. Unless otherwise specified in this product’s labeling, treatments with selective equipment including wipers and hooded sprayers must be made at least 14 days prior to harvest. Post-harvest or fallow applications must be made at least 30 days prior to planting. See “APPLICATION EQUIPMENT AND TECHNIQUES” section of this label for additional information.

General Weed Control, Site Preparation

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

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

Spot Treatment (Asparagus)

USE 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 (Asparagus)

USE INSTRUCTIONS: This product may be applied after the last harvest and suppression removed. Applications are allowed to regrow, delay application until fins have developed. Delayed treatments should be applied as a directed or shielded spray in order to avoid contact of the spray with fins, stems or spears.

PRECAUTIONS, RESTRICTIONS: Direct contact of the spray with the asparagus may result in serious crop injury. Select and use recommended types of spray equipment for postemergence post-harvest applications. A directed spray is any application where the spray falls on, or covers the foliage, without direct contact of the spray with the crown. A shielded spray is any application where a physical barrier is positioned and maintained between the spray and the plant to prevent contact of spray with the crop.

9.0 Tree, Vine, and Shrub Crops (Alphabetical)

NOTE: THIS SECTION GIVES GENERAL DIRECTIONS THAT APPLY TO ALL LISTED TREE, VINE, AND SHRUB CROPS WITHIN SECTION 9 GROUPED ALPHABETICALLY BELOW. SEE THE INDIVIDUAL CROP CATEGORIES FOR SPECIFIC INSTRUCTIONS, PREHARVEST INTERVALS, PRECAUTIONS AND RESTRICTIONS.

TYPES OF APPLICATIONS: Preplant (Site Preparation) Broadcast Sprays, General Weed Control, Middles (between rows of trees, vines or bushes), Strips (within rows of trees or bushes), Selective Equipment (Shielded Sprayers, Wiper Applications), Directed Sprays, Spot Treatments, Perennial Grass Suppression, Cut Stump.

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

GENERAL USE INSTRUCTIONS: This product may be applied in middles (between rows of trees or vines), strips (within rows of trees or vines), and for general weed control or perennial grass suppression in established tree fruit and nut groves, orchards, berries, and vineyards. It may also be used for site preparation prior to planting or transplanting these crops. Apply 1 pint to 5 quarts per acre according to the “ANNUAL WEEDS RATE TABLE” and “PERENNIAL WEEDS RATE TABLE” sections of this label. Utilize rates at the highest end of the recommended 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 product’s labeling apply to this product combined with the use of all other herbicides containing glyphosate or sulfonylurea 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 sulfonylurea containing products does not exceed stated maximum use rate.

GENERAL 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 new bark (never 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 shielded or directed sprayers (hooded sprayers, shielded applicators, or wipers) should be used to minimize the potential for leakage or drift of herbicide sprays onto crop. For berry crops, hooded or shielded sprayers must be fully enclosed including top, sides, front and back. Only wipers or shielded applicators capable of preventing all contact with crop may be used. 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. 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 recommended when weeds are stressed or growing in dense populations. 16 to 32 fluid ounces per acre of this product plus 3 to 12 fluid ounces per acre of Goal 2XL will control common cheeseweed (malva parviflora), grape halfmarigold (Conyza bonariensis) with a maximum height of diameter of 3 inches, and annual weeds with a maximum height or diameter of 6 inches, including crabgrass, common groundsel, junglerice, common lambquarters, redroot pigweed, London rocket, common ryegrass, shepherd’s-purse, annual sowthistle, field mustard (sinapis), horsenettle (solanum) and common purslane (suppression).

Strips (In Rows)

TANK MIXTURES: This product may be applied in rows of tree or vine crops in tank mixtures with the following products:
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 grasses in the spring to even their height and apply this product 3 to 4 days after mowing.

Site Preparation or Site Renovation, prior to transplanting tree crops. Apply this product within 1 day after 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.

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 percent 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. Use the 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.

For suppression of Perennial weeds: Use in suppression of Kentucky bluegrass covers, apply 6 fluid ounces of this product per acre. For suppression of Perennial weeds: Use in suppression of tall fescue, apply 8 fluid ounces of this product in 10 to 20 gallons of water per acre. 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 grasses in the spring to even their height and apply this product 3 to 4 days after mowing.

USE INSTRUCTIONS: This product may be used prior to planting Christmas trees. PRECAUTIONS, RESTRICTIONS: Precautions should be taken to protect non-target plants during site preparation applications.

9.3 Miscellaneous Tree Food Crops
LABELED CROPS: Cactus (fruit and pads), Palm (heart, leaves), Palm (oil).

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

TYPES OF APPLICATIONS: Those listed in Section 9.0.

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

9.6 Stone Fruit
LABELED CROPS: Apricot, Cherry (sweet, tart), Nectarine, Olive, Peach, Plum/Prune (all types), Pluot/nectarine.

TYPES OF APPLICATIONS: Those listed in Section 9.0.

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.

TREMIE CARE MUST BE TAKEN TO ENSURE NO PART OF THE TREE TOP IS CONTACTED.

9.7 Tree Nuts
LABELED CROPS: Almond, Beechnut, Betelnut, Brazil nut, Butternut, Cashew, Chestnut, Chinaberry, Cocobolo (tropical) nut, Macadamia, Pecan, Pine nut, Pistachio, Walnut (black, English).

TYPES OF APPLICATIONS: Those listed in Section 9.0.

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

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

TYPES OF APPLICATIONS: Those listed in Section 9.0.

PRECAUTIONS, RESTRICTIONS: Allow a minimum of 1 day between last application and harvest in banana, guava, papaya, and plantain crops. Allow a minimum of 1 day between last application and harvest in 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.

9.9 Vine Crops
LABELED CROPS: Grapes (juice, raisin, table, wine), Hops, Kiwi, Passion fruit.

TYPES OF APPLICATIONS: Those listed in Section 9.0.

Applications should 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 grape crops. Do not use selective equipment in kiwi.

10.0 Pasture Grasses, Forage Legumes and Rangelands
GENERAL USE INSTRUCTIONS: This product may be applied to turf or pasture grasses, forage legumes, and rangelands for weed control as directed below. Apply 12 fluid ounces to 5 quarts per acre according to the “ANNUAL WEEDS”, “PERENNIAL WEEDS”, and “WOODY BRUSH AND TREES RATE TABLES” in this product label booklet.

GENERAL PRECAUTIONS, RESTRICTIONS: Follow the specific limitations below in treatment applicators, methods, timing, treatment rates, and post-application intervals. All applications must be made at least 30 days before planting any crop that is not specified for treatment in this label booklet or supplemental labeling.

10.1 Alfalfa, Clover, and Other Forage Legumes
LABELED CROPS: Alfalfa, Clover, kenaf, Kudzu, Lespedeza, Leucaena, Lupin, Sainfoin, Teff, Velvet bean, Vetch (all types).

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

Preplant, Preemergence, At-Planting, Renovation, Site Preparation

USE INSTRUCTIONS: This product controls most existing vegetation prior to renovating turf or forage grass seed areas or establishing turfgrass 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 regrowth is 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 rennovation techniques such as verticulture, mowing or coring or slicing should 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 7 days after application before grazing or harvesting. For any crop not listed for treatment in this product’s label booklet, 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 small enough to escape shield by all control equipment used. For additional instructions, see ‘Shielded Applicators’ in the ‘APPLICATION EQUIPMENT AND TECHNIQUES’ section of this product’s label booklet.

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 should be adjusted so that the wiper contact point is at least 2 inches above the desirable vegetation. Weeds should be a minimum of 6 inches above the desirable vegetation. Better results may be obtained when more of the weed is exposed to the herbicide solution. Weeds not containing the herbicide solution and below 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 product’s label booklet.

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 2.0-percent 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 recommended.

Grower assumes all responsibility for crop losses from misapplication.

10.4 Pastures

Labeled crops: Any grass (Gramineae family) except Corn, Sorghum, Sugarcane and any crop producer’s labeled ‘Annual and Perennial Grass’:
- Brome, Fescue, Guineagrass, Kikuyugrass, Orchardgrass, Pangola grass, Ryegrass, Timothy, Wheagrass.

TYPES OF APPLICATIONS: Preplant, Preemergence, Spot Treatment, Over-the-Top Wiper Applications, Pasture Renovation, Postemergent Weed Control (Broadcast Treatments).

Preplant, Preemergence, 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 transplanting.

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 booklet may be planted into the treated area at any time; for other crops, wait 30 days after application and planting.

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to others for replanting. Contact your Authorized Retailer for information on obtaining a limited use license.

For ground applications with broadcast equipment, 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 recommended for over-the-top applications of this product unless otherwise noted in this product label, supplemental labeling or fact sheets published separately. 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 a leaf spot due to the surfactant added to the spray mixture. Read and carefully observe cautionary 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. TANK 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 recommendations are based on a clean start at planting by using a burndown application or tillage to control existing weeds before crop emergence. In no-till and stale seedbed systems, a preplant burn-down treatment of this product is recommended 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 should be made after some regrowth has occurred and at least 10 days after a previous application of this product.

11.1 Canola with the Roundup Ready Gene

TYPES OF APPLICATIONS: Preplant, At-Planting, Preemergence, Postemergence (In-Crop), Spot Treatment, Preharvest, Post-Harvest.

Maximum Allowable Combined Application Quantities Per Season

Preplant, Preemergence, At-Planting

<table>
<thead>
<tr>
<th>Application Category</th>
<th>Maximum Allowable Combined Application Quantities Per Season</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preplant, Preemergence</td>
<td>2 quarts per acre</td>
</tr>
<tr>
<td>Total in-crop applications from emergence to 6-leaf stage</td>
<td>1 quart per acre</td>
</tr>
</tbody>
</table>

Preplant, Postemergence, At-Planting

USE INSTRUCTIONS: This product may be applied before, during or after planting canola.

Postemergence

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

Weeds Controlled: For specific rates of application and instructions, refer to the “ANNUAL WEEDS RATE TABLE” and “PERENNIAL WEEDS RATE TABLE” in this booklet.

Single Application—Apply 16 to 24 fluid ounces per acre no later than the 6-leaf stage for the control of annual weeds. Avoid overlapping applications that may result in temporary yellowing, delayed flowering, and or growth reduction. Similar injury may result when applications of more than 16 fluid ounces per acre are applied after the 4-leaf stage.

Sequential Application—Apply 16 fluid ounces per acre to 1- to 3-leaf canola followed by a sequential application at a minimum interval of 10 days, but no later than the 6-leaf stage. Sequential applications are recommended for early emerging annual weeds and perennial weeds such as Canada thistle and quackgrass or when conditions for preemergence and/or sequential post applications are not met.

11.2 Corn with the Roundup Ready Gene

TYPES OF APPLICATIONS: Preplant, At-Planting, Preemergence, Postemergence (In-Crop), Spot Treatment, Preharvest, Post-Harvest.

Maximum Allowable Combined Application Quantities Per Season

<table>
<thead>
<tr>
<th>Application Category</th>
<th>Maximum Allowable Combined Application Quantities Per Season</th>
</tr>
</thead>
<tbody>
<tr>
<td>Combined total per year for all applications</td>
<td>8 quarts per acre</td>
</tr>
<tr>
<td>Preplant, At-Planting</td>
<td>5 quarts per acre</td>
</tr>
<tr>
<td>Preemergence applications</td>
<td>5 quarts per acre</td>
</tr>
<tr>
<td>Total in-crop applications from emergence through the V8 stage or 30 inches</td>
<td>2 quarts per acre</td>
</tr>
<tr>
<td>Maximum preharvest application rate after maximum kernel fill is complete and the crop is physiologically mature (black layer formation) until 7 days before harvest</td>
<td>1 quart per acre</td>
</tr>
</tbody>
</table>

Preplant, Preemergence, At-Planting

USE INSTRUCTIONS: This product may be applied alone or in a tank-mixture, tank mixture, including application timing restrictions, soil restrictions, minimum recropping interval and rotational guidelines—the more restrictive requirements apply.

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

Postemergence (In-crop)

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

When applied as directed, this product controls labeled annual grass and broadleaf weeds. Some perennial grasses and broadleaf weeds will be controlled or suppressed with one or more application of this product. The postemergent application of 24 to 32 fluid ounces per acre of this product should 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 postemergence 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 in Roundup Ready corn will control the labeled grass 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, Lariat, Lasso or Micro-Tech at 50 to 100 percent of labeled rate. Refer to the specific product label and observe all precautions and limitations on the label for any preemergence herbicide application, including application timing restrictions, soil restrictions, minimum recropping interval and rotational guidelines—the more restrictive requirements apply.

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

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

Preharvest

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

**PRECAUTIONS, RESTRICTIONS:** Allow a minimum of 7 days between application 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.

**11.3 Cotton with the Roundup Ready Gene**

**TYPES OF APPLICATIONS:** Preplant, At-Planting, Preemergence, Selective Equipment, Preharvest.

**PRECAUTIONS, RESTRICTIONS:** See the “ROUNDUP READY CROPS” section of this label for general precautionary instructions for use in Roundup Ready crops. ALLOW A MINIMUM OF 7 DAYS BETWEEN APPLICATION AND HARVEST.

**Preplant, Preemergence, At-Planting**

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

**Selective Equipment**

USE INSTRUCTIONS: This product may be applied using precision hooded sprayers at rates up to 1 quart per acre per application to Roundup Ready cotton through layby. For best results, make applications while weeds are small (less than 5 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.

**Preharvest**

USE INSTRUCTIONS: This product may be applied for preharvest annual and perennial weed control as a broadcast treatment to Roundup Ready cotton after 20 percent boll crack. Up to 2 quarts of this product may be applied using either aerial or ground application 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. Do not apply this product to cotton grown for seed, as a reduction in germination or vigor may occur. THE USE OF ADDITIVES FOR PREHARVEST 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 MAY 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.

**11.4 Soybeans with the Roundup Ready Gene**

**TYPES OF APPLICATIONS:** Preplant, At-Planting, Preemergence, Postemergence (In-Crop), Preharvest, Post-Harvest.

<table>
<thead>
<tr>
<th>Maximum Allowable Combined Application Quantities Per Season</th>
</tr>
</thead>
<tbody>
<tr>
<td>Combined total per year for all applications</td>
</tr>
<tr>
<td>Preplant, At-Planting</td>
</tr>
<tr>
<td>Preemergence applications</td>
</tr>
<tr>
<td>Total in-crop applications from cracking through flowering</td>
</tr>
<tr>
<td>Maximum preharvest application rate</td>
</tr>
</tbody>
</table>

**PRECAUTIONS/RESTRICTIONS:** See the “ROUNDUP READY CROPS” section of this label for general precautionary instructions for use in Roundup Ready crops.

**Preplant, Preemergence, At-Planting**

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

**Postemergence (In-Crop)**

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) through application to the “ANNUAL WEEDS RATE TABLE” in this label for rate recommendations for specific annual weeds. In general, an initial application of 1 quart per acre on 2- to 8-inch tall weeds is recommended. 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, trumpet creeper, swamp sunflower and wireweed. For best results, allow perennial weed species to achieve at least 6 inches of growth before spraying with this product.

Under adverse growing conditions such as drought, hail, wind damage or a poor soybean stand that slows or delays canopy closure, a sequential application of this may be necessary to control late flushes of weeds. IN THE SOUTHERN PART OF ROUNDUP READY SOYBEAN AREAS, USE THE FOLLOWING 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 recommended 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 may not be practiced in California unless the applicator has at the time of application a California-approved Supplemental Label specifying the accepted Dilution Rates for Use.

**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.

**Preharvest**

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 should 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 soybean grain or feeding of soybean grain, 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.

**12.0 NON-CROP USES: FARMSTEAD, INDUSTRIAL, TURF AND ORNAMENTAL SITES**

**TYPES OF APPLICATIONS:** General Non-Crop Weed Control, Trim-and-Edge, Bare Ground, Ornamentals, Plant Nurseries, Christmas Trees, Chemical Mowing, Turfgrass Renovation, Seed or Sod Production, Cut Stumps, Habitat Management, and Interior and Exterior Applications.

**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 MAY 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.

**12.1 General Non-Crop Weed Control, Trim-and-Edge, Bare Ground**

USE INSTRUCTIONS: Use in areas such as airports, apartment complexes, Christmas tree farms, ditch banks, dry ditches, dry canals, fencerows, golf courses, industrial sites, lumber yards, manufacturing sites, office complexes, ornamental nurseries, parks, parking areas, petroleum tank farms and pumping installations, railroads, railroads, recreational areas, residential areas, roadsides, sod or turf seed farms, schools, storage areas, substations, warehouse areas, other public areas, and similar industrial and non-crop sites.

This product may be used in general non-crop areas. It may be applied with any application equipment described in this label. This product may be applied using precision hooded sprayers or in-ground application equipment. This product may be used to control broadleaf weeds, woody brush and trees. When tank mixing, read and carefully observe the label claims, cautionary statements and all information on the labels of all products to be tank mixed.

**TANK MIXTURES:** This product may be tank mixed with the following products provided that the specific product is registered for use on such non-crop sites.

- **Arsenal®**
- **Barricade 65WG**
- **Clarity**
- **Duron**
- **Endurance**
- **Escort®**
- **Grazon® 3A**
- **Garlon 4**
- **Hyvar X**
- **Karmex DF**
- **Krovar 1 DF**
- **Manager®**
- **Oust**
- **Penulum 3.3 EC**
- **Penulum HDG**
- **Pestace®**
- **Princep DF**
- **Sahara®**
- **Simazine®**
- **Spike® 80DF**
- **Surflan®**
- **Talor®**
- **Vanquish**
- **2,4-D**
- **Princet Liquid**

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

**Brush Control Tank Mixtures**

Tank mixtures of this product may be used to increase the spectrum of control for herbaceous weeds, woody brush and trees. When tank mixing, read and carefully observe the label claims, cautionary statements and all information on the labels of all products to be tank mixed.

This product may be used to control broadleaf weeds, woody brush and trees. Use according to the most restrictive precautionary statements for each product in the mixture. Any recommended rate of this product may be used in a tank mix.

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

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NOTE: For side trimming treatments, it is recommended that this product be used alone or in tank mixture with Garlon 4.

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>BROADCAST RATE</th>
<th>SPRAY-TO-WET RATES</th>
<th>DIRECTED SPRAY RATES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arsenal 2 WSL</td>
<td>6 to 32 fluid ounces per acre</td>
<td>0.06 to 0.12% by volume</td>
<td>0.1 to 0.5% by volume</td>
</tr>
<tr>
<td>Escort</td>
<td>1 to 2 ounces per acre</td>
<td>1 to 2 ounces per acre</td>
<td>1 to 2 ounces per acre</td>
</tr>
<tr>
<td>Garlon 3A*</td>
<td>1 to 4 quarts per acre</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Garlon 4</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Ensure that Garlon 3A is thoroughly mixed with water according to label directions before adding this product. Have spray mist agitating at the time this product is added to avoid spray compatibility problems.

12.2 Ornamentals, Plant Nurseries, Christmas Trees

USE INSTRUCTIONS: This product may be used to maintain weed control in tree or ornamental sites.

Post-Directed, Trim-and-Edge

This product may be used as a post-directed spray around established woody ornamental species such as arborvitae, azalea, boxwood, crapapple, eucalyptus, euonymous, fir, Douglas fir, jojoba, hollies, lilac, magnolia, maple, oak, poplar, privet, pine, spruce and yew. This product may also be used to trim and edge building, sidewalks and roads, potted plants and other objects in a nursery setting.

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 RECOMMENDED FOR USE AS AN OVER-THE-TOP BROADCAST SPRAY IN ORNAMENTALS AND CHRISTMAS TREES. Care must be exercised to avoid contact of spray, drift or mist with foliage or green bark of established ornamental species.

Site Preparation

This product may be used prior to planting any ornamental, nursery or Christmas tree species.

Water Applications

This product may be used through wick or other suitable wiper applicators to control or partially control undesired vegetation around established eucalyptus or poplar trees. See the “Selective Equipment” section of this label for further information about the proper use of wiper applicators.

Greenhouse/Shadehouse

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

12.3 Chemical Mowing

USE INSTRUCTIONS: This product will suppress some annual and perennial grasses listed in this section to serve as a substitute for mowing.

Chemical Mowing—Perennials

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

Chemical Mowing—Annuals

For growth suppression of some annual grasses, such as annual ryegrass, wild barley and wild oats growing in coarse turf on roadsides or other industrial areas, apply 4 to 5 fluid ounces of this product in 10 to 40 gallons of spray solution per acre. Applications should be made when annual grasses are actively growing and before the seedheads are in the boot stage of development. Treatments may cause injury to the desired grasses.

Bromus Species and Medusahed in Pastures and Rangelands

Bromus species. This product may be used to treat downy brown (Bromus tectorum), Japanese brome (Bromus japonicus), soft chess (Bromus mollis) and cheatgrass (Bromus secalinus) found in industrial, rangeland and pasture sites. Apply 8 to 16 fluid ounces of this product per acre on a broadcast basis.

For best results, treatment should coincide with early seedhead emergence of the most mature plants. Delaying the application until this growth stage will maximize the emergence of other weedy grass flowers. Applications should be made to the same site each year until seed banks are depleted and the desirable perennial grasses can become reestablished on the site.

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

Applications to brome and medusahed may be made using ground or aerial equipment. Aerial applications for these uses may be made using fixed wing or helicopter equipment. For aerial applications, apply in 2 to 10 gallons of water per acre. For applications using ground equipment, apply in 10 to 20 gallons of water per acre. When applied as directed in this label section, there are no grazing restrictions.

Dormant Turfgrass

This product may be used to control or suppress many winter annual weeds and tillage for effective release of dormant Bermudagrass and bahiagrass turf. Treat only when turf is dormant and prior to spring greenup.

Apply 8 to 64 fluid ounces of this product per acre. Apply the recommended rates in 10 to 40 gallons of water per acre. Use only in areas where Bermudagrass or bahiagrass are desirable ground covers and where some temporary injury or discoloration can be tolerated.

Treatments in excess of 16 fluid ounces per acre may result in injury or delayed greenup in highly maintained areas, such as golf courses and lawns. DO NOT apply tank mixes of this product plus Oust or Outrider herbicides in highly maintained turfgrass areas. For further uses, refer to the “Roadside” section of this label, which gives rates for dormant Bermudagrass and bahiagrass treatments.

Actively Growing Bermudagrass

This product may be used to control or partially control many annual and perennial weeds for effective release of actively growing Bermudagrass. DO NOT apply more than 16 fluid ounces of this product per acre in highly maintained turfgrass areas. DO NOT apply tank mixes of this product plus Oust in highly maintained turfgrass areas. For further uses, refer to the “Roadside” section of this label, which gives rates for actively growing Bermudagrass treatments. Use only in areas where some temporary injury or discoloration can be tolerated.

12.4 Turfgrass Renovation, Seed or Sod Production

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

Desirable turfgrasses may be planted following the above procedures.

Hand-held equipment may be used for spot treatment of unwanted vegetation growing in existing turfgrass. Broadcast or hand-held 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 should be delayed for 7 days after application to allow translocation into underground plant parts. Do not feed or graze turfgrasses grown for seed or seed production for 8 weeks following application.

12.5 Cut Stumps

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

Alder, Pepper, Brazilian Sweetgum

Eucalyptus, Pine, Austrian Tan oak

Madrone, Reed, giant Willow

Oak, Salt cedar

PRECAUTIONS, 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.

12.6 Habitat Management

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 may be made to selectively remove unwanted plants for habitat maintenance and enhancement.

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 such weeds may be controlled by 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 before tillage.

12.7 Injection and Frill

(Woody Brush and Trees)

USE INSTRUCTIONS: This product may be used to control woody brush and trees by injection or frill applications. Apply this product using suitable equipment.
that must penetrate into the living tissue. Apply the equivalent of 0.04 fluid ounce (1 mL) of this product per inch of trunk diameter at breast height (DBH). This is best achieved by applying a 50 to 100 percent concentration of this product either to a continuous frill around the tree or as cuts evenly spaced around the tree below all branches. As tree diameter increases in size, better results are achieved by applying dilute material to a continuous frill or more closely spaced cuttings. Avoid application techniques that allow runoff to occur from frilled or cut areas in species that exude sap freely. In species such as this, make the frill or cuts at an oblique angle to produce a cupping effect and use a 100 percent concentration of this product. For best results, application should be made during periods of active growth and after full leaf expansion.

12.8 Parks, Recreational and Residential Areas

USE INSTRUCTIONS: All of the instructions in the ‘General Non-Crop Weed Control, Trim-and-Edge, Bare Ground’ section apply to parks and recreational areas.

This product may be used in parks, recreational and residential areas. It may be applied with any application equipment described in this label. This product may be used to trim-and-edge around trees, fences, and paths, around buildings, sidewalks, and other objects in these areas. This product may be used for spot treatment of unwanted vegetation. This product may be used to eliminate unwanted weeds growing in established shrub beds or ornamental plantings. This product may be used prior to planting an area to ornamentals, flowers, turfgrass (sod or seed), or prior to laying asphalt or beginning construction projects.

12.9 Railroads

USE INSTRUCTIONS: All of the instructions in the ‘General Non-Crop Weed Control, Trim-and-Edge, Bare Ground’ section apply to railroads.

Bare Ground, Ballast and Shoulders, Crossings, Spot Treatments

This product may be used to maintain bare ground on railroad ballast and shoulders. Repeat applications of this product may be used, as weeds emerge, to maintain bare ground. This product may be used to control tall-growing weeds to improve line-of-sight at railroad crossings and reduce the need for mowing along rights-of-way. For crossing applications, up to 80 gallons of spray solution per acre may be used.

TANK MIXTURES: This product may be tank mixed with the following products provided that the specific product is registered for ballast, shoulder, spot, bare ground and crossing treatments:

| Product | Rate | Compatibility
|---------|------|----------------|
| Arsenal | Garlon 4 | Spike
| Clarity | Hyvar X | Teler
| Diuron | Krovor 1 DF | Vanquish
| Escort | Oust | 2,4-D
| Garlon 3A | Sahara |

Brush Control

This product may be used to control woody brushes and trees on railroad rights-of-way. Apply 4 to 10 gallons of spray solution per acre as a broadleaf spray, using boom-type or boomless nozzles. Up to 80 gallons of spray solution per acre may be used. Apply a 0.75 to 2 percent solution of this product when using high-volume spray-to-wet applications. Apply a 5 to 10 percent solution of this product when using low volume directed sprays for spot treatment.

TANK MIXTURES: This product may be mixed with the following products for enhanced control of woody brushes and trees:

| Product | Rate | Compatibility
|---------|------|----------------|
| Arsenal | Garlon 3A | Tordon K
| Escort | Garlon 4 |

Bermudagrass Release

This product may be used to control or partially control many annual and perennial weeds for effective release of actively growing Bermudagrass. Apply 1 to 3 pints of this product in up to 80 gallons of spray solution per acre. Use the lower rate when treating annual weeds below 6 inches in height (or runner length). Use the higher rate as weeds increase in size or as they approach flower or seedhead formation. These rates will also provide partial control of the following perennial species:

| Product | Rate | Compatibility
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Bahiagrass</td>
<td>Fescue, tall</td>
<td>Trumpetcreep</td>
</tr>
<tr>
<td>Bluestem, silver</td>
<td>Johnsongrass</td>
<td>Vaseygrass</td>
</tr>
</tbody>
</table>

TANK MIXTURES: This product may be tank mixed with Oust. If tank-mixed, use no more than 1 to 3 pints of this product with 1 to 2 ounces of Oust per acre. Use the lower rates of each product to control annual weeds less than 6 inches in height (or runner length) that are listed in this label and the Oust label. Use the higher rates as annual weeds increase in size and approach the flower or seedhead stages. These rates will also provide partial control of the following perennial weeds:

| Product | Rate | Compatibility
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Bahiagrass</td>
<td>Dock, curly</td>
<td>Poorjoe</td>
</tr>
<tr>
<td>Bluestem, silver</td>
<td>Dogfennel</td>
<td>Trumpetcreep</td>
</tr>
<tr>
<td>Broomsedge</td>
<td>Fescue, tall</td>
<td>Vaseygrass</td>
</tr>
<tr>
<td>Dicgrass</td>
<td>Johnsongrass</td>
<td>Vervain, blue</td>
</tr>
</tbody>
</table>

PRECAUTIONS, RESTRICTIONS: Use only on well-established Bermudagrass. Bermudagrass injury may result from the treatment, but regrowth will occur under moist conditions. Repeat applications in the same season are not recommended, since severe injury may occur.

12.10 Roadsides

USE INSTRUCTIONS: All of the instructions in the ‘General Non-Crop Weed Control, Trim-and-Edge, Bare Ground’ section apply to roadsides.

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TANK MIXTURES. This product may be used for control or partial control of Johnsongrass and other weeds listed on the Outrider herbicide label in actively growing bahiagrass. Apply 1.5 to 5 fluid ounces of this product with 0.75 to 1.3 ounces of Outrider herbicide per acre. Use the higher rates for control of perennial weeds or annual weeds greater than 6 inches in height. Use only on well established bahiagrass.

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

Make only one application per year.

13.0 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 RECOMMENDED.

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.

### ANNUAL WEEDS RATE TABLE

<table>
<thead>
<tr>
<th>WEED SPECIES</th>
<th>RATE</th>
<th>16</th>
<th>24</th>
<th>32</th>
<th>40</th>
<th>48</th>
</tr>
</thead>
<tbody>
<tr>
<td>Falseflax, smallseed</td>
<td>12</td>
<td>6</td>
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<tr>
<td>Fiddleneck</td>
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<td>Field pennycress</td>
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<td>Filaree</td>
<td></td>
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<td>Fleabane, annual</td>
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<tr>
<td>Fleabane, hairy (Conyza bonariensis)</td>
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<td>6</td>
<td>10</td>
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<td></td>
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<tr>
<td>Fleabane, rough</td>
<td>3</td>
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<td>12</td>
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<td>Florida pusley</td>
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<td>Foxtail, giant, bristly, yellow</td>
<td>6</td>
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<td>Grain sorghum (milo)</td>
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<td>Hemp sesbania</td>
<td>2</td>
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<td>6</td>
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<td>Henbit</td>
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<td>6</td>
<td></td>
<td></td>
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<tr>
<td>Horseweed/Marestail (Conyza canadensis)</td>
<td>6</td>
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<tr>
<td>Junglerice</td>
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<td>3</td>
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<td>London rocket</td>
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<td>Mayweed</td>
<td>2</td>
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<tr>
<td>Morning glory, annual (Ipomoea sp)</td>
<td></td>
<td>3</td>
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<td></td>
<td></td>
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<tr>
<td>Mustard, blue</td>
<td>6</td>
<td>12</td>
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</tr>
<tr>
<td>Mustard, tansy</td>
<td>6</td>
<td>12</td>
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</tr>
<tr>
<td>Mustard, tumble</td>
<td>6</td>
<td>12</td>
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</tr>
<tr>
<td>Mustard, wild</td>
<td>6</td>
<td>12</td>
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</tr>
<tr>
<td>Nightshade, black</td>
<td>4</td>
<td>6</td>
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<td>12</td>
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<tr>
<td>Nightshade, hairy</td>
<td>4</td>
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<td>Oats</td>
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<td>6</td>
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<tr>
<td>Pigsweed species</td>
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<td>Prickly lettuce</td>
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<td>Purslane</td>
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<tr>
<td>Ragweed, common</td>
<td>6</td>
<td>12</td>
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<td>Ragweed, giant</td>
<td>6</td>
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<tr>
<td>Red rice</td>
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<tr>
<td>Rye, volunteer/cereal</td>
<td>6</td>
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<tr>
<td>Ryegrass</td>
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<tr>
<td>Sandbur, field</td>
<td>6</td>
<td>12</td>
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<tr>
<td>Sandbur, longspine</td>
<td>6</td>
<td>12</td>
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</tr>
<tr>
<td>Shattercane</td>
<td>6</td>
<td>12</td>
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<tr>
<td>Shepherd’s purse</td>
<td>6</td>
<td>12</td>
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</tr>
<tr>
<td>Sicklepod</td>
<td>2</td>
<td>4</td>
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<td></td>
<td>8</td>
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<tr>
<td>Signalgrass, broadleaf</td>
<td>3</td>
<td>6</td>
<td></td>
<td></td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Smartweed, lady's thumb</td>
<td></td>
<td></td>
<td></td>
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<td>9</td>
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</tbody>
</table>

Maximum height/length (in inches)

### ANNUAL WEEDS RATE TABLE

<table>
<thead>
<tr>
<th>WEED SPECIES</th>
<th>RATE</th>
<th>16</th>
<th>24</th>
<th>32</th>
<th>40</th>
<th>48</th>
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</thead>
<tbody>
<tr>
<td>Ammannia, purple</td>
<td>3</td>
<td>6</td>
<td>12</td>
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<tr>
<td>Anoda, spurred</td>
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<td>3</td>
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<tr>
<td>Barley</td>
<td>18</td>
<td>18+</td>
<td></td>
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</tr>
<tr>
<td>Barnyardgrass</td>
<td>3</td>
<td>6</td>
<td>7</td>
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<tr>
<td>Bassia, fivehook</td>
<td></td>
<td>6</td>
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<tr>
<td>Beggarweed, Florida</td>
<td>5</td>
<td>8</td>
<td></td>
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<tr>
<td>Bittercress</td>
<td>12</td>
<td>20</td>
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<tr>
<td>Bluegrass, annual</td>
<td>10</td>
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<td></td>
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<tr>
<td>Bluegrass, bulbous</td>
<td>6</td>
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<td></td>
<td></td>
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<tr>
<td>Brome, downy 1, 2</td>
<td>6</td>
<td>12</td>
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<td></td>
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<tr>
<td>Brome, Japanese</td>
<td>6</td>
<td>12</td>
<td>24</td>
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<tr>
<td>Browntop panicum</td>
<td>6</td>
<td>8</td>
<td>12</td>
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<td>24</td>
<td></td>
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<tr>
<td>Buckwheat, wild</td>
<td>1</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Burcucumber</td>
<td>6</td>
<td>12</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Buttercup</td>
<td>12</td>
<td>20</td>
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<td></td>
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<tr>
<td>Carolina geranium</td>
<td></td>
<td></td>
<td>4</td>
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<td>9</td>
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<tr>
<td>Carpetweed</td>
<td>6</td>
<td>12</td>
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<tr>
<td>Cheat</td>
<td>6</td>
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<tr>
<td>Chervil</td>
<td>20</td>
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<tr>
<td>Chickweed</td>
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<td>36</td>
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<tr>
<td>Cocklebur</td>
<td>12</td>
<td>18</td>
<td>24</td>
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<td>36</td>
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<tr>
<td>Copperleaf, hophornbeam</td>
<td>2</td>
<td>4</td>
<td></td>
<td>6</td>
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<tr>
<td>Copperleaf, Virginia</td>
<td>2</td>
<td>4</td>
<td></td>
<td>6</td>
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<tr>
<td>Coreopsis, plains</td>
<td>6</td>
<td>12</td>
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<td>18</td>
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<tr>
<td>Corn, volunteer</td>
<td>6</td>
<td>12</td>
<td>20</td>
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<tr>
<td>Corn speedwell</td>
<td>12</td>
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<tr>
<td>Crabgrass</td>
<td>3</td>
<td>6</td>
<td>12</td>
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<td></td>
</tr>
<tr>
<td>Crowfootgrass</td>
<td></td>
<td>6</td>
<td></td>
<td></td>
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<td>12</td>
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<tr>
<td>Cutleaf evening primrose</td>
<td></td>
<td>3</td>
<td></td>
<td></td>
<td>6</td>
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</tr>
<tr>
<td>Devil’s claw (unicorn plant)</td>
<td>3</td>
<td>6</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Dwarf dandelion</td>
<td>12</td>
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<td></td>
</tr>
<tr>
<td>Eastern mannagrass</td>
<td>8</td>
<td>12</td>
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<td></td>
</tr>
<tr>
<td>Eclipta</td>
<td>4</td>
<td>8</td>
<td>12</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fall panicum</td>
<td>4</td>
<td>6</td>
<td></td>
<td></td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>False dandelion</td>
<td></td>
<td>20</td>
<td></td>
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<td></td>
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</tr>
</tbody>
</table>

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When using application methods that result in less than complete coverage, use a 5 percent solution for annual and perennial weeds and a 5 to 10 percent solution for woody brush and trees.

13.4 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.

For best results, use a 2 percent solution on harder-to-control perennials, such as Bermudagrass, dock, field bindweed, hemp dogbane, milkweed and Canada thistle.

12 to 16 fluid ounces of this product plus 1 to 2 pounds of atrazine per acre will control the following weeds: Barnyardgrass (requires 28 ounces for control), D July, Green foxtail, Lambsquarters, Prickly lettuce, Tansy mustard, Pigweed, Field sandbur, Stinkgrass, Russian thistle, Volunteer wheat, Witchgrass and Kochia (add 0.125 pound of dicamba for control). Ensure that the specific atrazine product is registered for application at the desired site.

14.0 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 recommended 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 weed growth.

<table>
<thead>
<tr>
<th>Weed Species</th>
<th>Rate (QT/A)</th>
<th>Water Volume (GPA)</th>
<th>Hand-Held % Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alfalfa</td>
<td>1-2</td>
<td>3-10</td>
<td>2%</td>
</tr>
<tr>
<td>Anise (fennel)</td>
<td>—</td>
<td>—</td>
<td>1-2%</td>
</tr>
<tr>
<td>Bahiagrass</td>
<td>3-5</td>
<td>3-20</td>
<td>2%</td>
</tr>
<tr>
<td>Bentgrass</td>
<td>1.5</td>
<td>10-20</td>
<td>2%</td>
</tr>
<tr>
<td>Bermudagrass</td>
<td>3-5</td>
<td>3-20</td>
<td>2%</td>
</tr>
<tr>
<td>Bermudagrass, water (knotgrass)</td>
<td>1-1.5</td>
<td>5-10</td>
<td>2%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Weed Species</th>
<th>Rate (QT/A)</th>
<th>Water Volume (GPA)</th>
<th>Hand-Held % Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alfalfa</td>
<td>1-2</td>
<td>3-10</td>
<td>2%</td>
</tr>
<tr>
<td>Anise (fennel)</td>
<td>—</td>
<td>—</td>
<td>1-2%</td>
</tr>
<tr>
<td>Bahiagrass</td>
<td>3-5</td>
<td>3-20</td>
<td>2%</td>
</tr>
<tr>
<td>Bentgrass</td>
<td>1.5</td>
<td>10-20</td>
<td>2%</td>
</tr>
<tr>
<td>Bermudagrass</td>
<td>3-5</td>
<td>3-20</td>
<td>2%</td>
</tr>
<tr>
<td>Bermudagrass, water (knotgrass)</td>
<td>1-1.5</td>
<td>5-10</td>
<td>2%</td>
</tr>
</tbody>
</table>

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 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.

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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 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.
Weed Species | Rate (QT/A) | Water Volume (GPA) | Hand-Held % Solution
--- | --- | --- | ---
Also for control, apply 2 quarts of this product plus 0.5 pound 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 of 2,4-D in 10 to 20 gallons of water per acre with ground equipment only. Applications should 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 least one irrigation will promote active bindweed growth. For suppression, apply 16 fluid ounces of this product plus 0.5 pound 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 should be delayed until maximum emergence has occurred and when vines are between 6 to 18 inches in length.
In California only, apply 1 to 3 quarts of this product per acre. Actual rate needed for suppression or control will vary within this range depending on local conditions. For suppression on irrigated land where annual tillage is performed, apply 1 quart of this product in 3 to 10 gallons of water per acre. Apply to bindweed that has reached a length of 12 inches or greater. Allow maximum weed emergence and runner growth. Allow 3 or more days after application before tillage.

Bluegrass, Kentucky
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.

Blueweed, Texas
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
Apply to fully expanded fronds that are at least 18 inches long.

Bromegrass, smooth
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-leaves
For control, apply 2 quarts of this product plus 0.5 pound of dicamba per acre. For partial control, apply 1 quart of this product plus 0.5 pound 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
For best results, apply when most plants have reached the boot-to-head stage of growth.

Cattail
Apply when most plants have reached the head stage.

Clover; red, white
Apply when most plants have reached the bud stage.

Dock, curly
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 of 2,4-D in 3 to 10 gallons of water per acre.

Dallisgrass
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.

Dandelion
Apply when most plants have reached the head stage.

Dock, yellow
Apply when most plants have reached the early bud stage.

Dogbane, hemp
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 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.
SPECIMEN LABEL  

UPDATES AVAILABLE AT WWW.GREENBOOK.NET

<table>
<thead>
<tr>
<th>Weed Species</th>
<th>Rate (QT/A)</th>
<th>Water Volume (GPA)</th>
<th>Hand-Held % Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orchardgrass</td>
<td>1-2</td>
<td>3-40</td>
<td>2%</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Weed Species</th>
<th>Rate (QT/A)</th>
<th>Water Volume (GPA)</th>
<th>Hand-Held % Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paragras</td>
<td>3-5</td>
<td>3-20</td>
<td>2%</td>
</tr>
</tbody>
</table>

Apply when most plants are in the early head stage.

<table>
<thead>
<tr>
<th>Weed Species</th>
<th>Rate (QT/A)</th>
<th>Water Volume (GPA)</th>
<th>Hand-Held % Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phragmites</td>
<td>3-5</td>
<td>10-40</td>
<td>1-2%</td>
</tr>
</tbody>
</table>

For partial control and 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. Visual control symptoms will be slow to develop.

<table>
<thead>
<tr>
<th>Weed Species</th>
<th>Rate (QT/A)</th>
<th>Water Volume (GPA)</th>
<th>Hand-Held % Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poison hemlock</td>
<td>—</td>
<td>—</td>
<td>1-2%</td>
</tr>
</tbody>
</table>

For hand-held, apply as a spray-to-wet treatment. Optimum results are obtained when plants are treated at the bud to full-bloom stage of growth. Thorough coverage is necessary for best control.

<table>
<thead>
<tr>
<th>Weed Species</th>
<th>Rate (QT/A)</th>
<th>Water Volume (GPA)</th>
<th>Hand-Held % Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pokeweed, common</td>
<td>1.0</td>
<td>3-40</td>
<td>2%</td>
</tr>
</tbody>
</table>

Apply to actively growing plants up to 24 inches tall.

<table>
<thead>
<tr>
<th>Weed Species</th>
<th>Rate (QT/A)</th>
<th>Water Volume (GPA)</th>
<th>Hand-Held % Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quackgrass</td>
<td>1-3</td>
<td>3-40</td>
<td>2%</td>
</tr>
</tbody>
</table>

In annual cropping systems, or in pastures and sods followed by deep tillage: Apply 1 quart of this product in 3 to 10 gallons of water per acre. For 10 to 40 gallons of water per acre, apply 2 quarts of this product. Do not tank mix with residual herbicides when using the 1-quart rate. Spray when quackgrass is 6 to 8 inches in height. Do not till between harvest and fall applications or in fall or spring prior to spring application. 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 the quackgrass is greater than 8 inches tall.

<table>
<thead>
<tr>
<th>Weed Species</th>
<th>Rate (QT/A)</th>
<th>Water Volume (GPA)</th>
<th>Hand-Held % Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Redvine</td>
<td>0.75-2</td>
<td>5-10</td>
<td>2%</td>
</tr>
</tbody>
</table>

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 recommended 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.

<table>
<thead>
<tr>
<th>Weed Species</th>
<th>Rate (QT/A)</th>
<th>Water Volume (GPA)</th>
<th>Hand-Held % Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reed, giant</td>
<td>—</td>
<td>—</td>
<td>2%</td>
</tr>
</tbody>
</table>

Best results are obtained when applications are made in late summer to fall.

<table>
<thead>
<tr>
<th>Weed Species</th>
<th>Rate (QT/A)</th>
<th>Water Volume (GPA)</th>
<th>Hand-Held % Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ryegrass, perennial</td>
<td>1-3</td>
<td>3-40</td>
<td>1%</td>
</tr>
</tbody>
</table>

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 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 of this product per acre.

<table>
<thead>
<tr>
<th>Weed Species</th>
<th>Rate (QT/A)</th>
<th>Water Volume (GPA)</th>
<th>Hand-Held % Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smartweed, swamp</td>
<td>3-5</td>
<td>3-40</td>
<td>2%</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Weed Species</th>
<th>Rate (QT/A)</th>
<th>Water Volume (GPA)</th>
<th>Hand-Held % Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sowthistle, perennial</td>
<td>2-3</td>
<td>3-40</td>
<td>2%</td>
</tr>
</tbody>
</table>

Apply when most plants are at or beyond the bud stage of growth. After harvest, mowing or tillage in the late summer or fall, allow at least 4 weeks for initiation of active growth and rosette development prior to the application of this product. Fall treatments must be applied before a killing frost. Allow 3 or more days after application before tillage.

<table>
<thead>
<tr>
<th>Weed Species</th>
<th>Rate (QT/A)</th>
<th>Water Volume (GPA)</th>
<th>Hand-Held % Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spurge, leafy</td>
<td>3-10</td>
<td>2%</td>
<td></td>
</tr>
</tbody>
</table>

For suppression, apply 16 fluid ounces of this product plus 0.5 pound 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.

<table>
<thead>
<tr>
<th>Weed Species</th>
<th>Rate (QT/A)</th>
<th>Water Volume (GPA)</th>
<th>Hand-Held % Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Starthistle, yellow</td>
<td>2-3</td>
<td>10-40</td>
<td>2%</td>
</tr>
</tbody>
</table>

Best results are obtained when applications are made during the rosette, bolting and early flower stages.

<table>
<thead>
<tr>
<th>Weed Species</th>
<th>Rate (QT/A)</th>
<th>Water Volume (GPA)</th>
<th>Hand-Held % Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sweet potato, wild</td>
<td>—</td>
<td>—</td>
<td>2%</td>
</tr>
</tbody>
</table>

For partial control, apply to plants that are at or beyond the bloom stage of growth. Repeat applications may be required.

<table>
<thead>
<tr>
<th>Weed Species</th>
<th>Rate (QT/A)</th>
<th>Water Volume (GPA)</th>
<th>Hand-Held % Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thistle, artichoke</td>
<td>—</td>
<td>—</td>
<td>2%</td>
</tr>
</tbody>
</table>

For partial control, apply to plants that are at or beyond the bloom stage of growth. Repeat applications may be required.

<table>
<thead>
<tr>
<th>Weed Species</th>
<th>Rate (QT/A)</th>
<th>Water Volume (GPA)</th>
<th>Hand-Held % Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thistle, Canada</td>
<td>2-3</td>
<td>3-40</td>
<td>2%</td>
</tr>
</tbody>
</table>

Apply when most plants are at or beyond the bud stage of growth. After harvest, mowing or tillage in the late summer or fall, allow at least 4 weeks for initiation of active growth and rosette development prior to the application of this product. Fall treatments must be applied before a killing frost. Allow 3 or more days after application before tillage.

<table>
<thead>
<tr>
<th>Weed Species</th>
<th>Rate (QT/A)</th>
<th>Water Volume (GPA)</th>
<th>Hand-Held % Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Torpedograss</td>
<td>4-5</td>
<td>3-40</td>
<td>2%</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Weed Species</th>
<th>Rate (QT/A)</th>
<th>Water Volume (GPA)</th>
<th>Hand-Held % Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trumpetcreep</td>
<td>2</td>
<td>5-10</td>
<td>2%</td>
</tr>
</tbody>
</table>

For 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.

<table>
<thead>
<tr>
<th>Weed Species</th>
<th>Rate (QT/A)</th>
<th>Water Volume (GPA)</th>
<th>Hand-Held % Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vaseygrass</td>
<td>3-5</td>
<td>3-20</td>
<td>2%</td>
</tr>
</tbody>
</table>

Apply when most plants are in the early head stage.

<table>
<thead>
<tr>
<th>Weed Species</th>
<th>Rate (QT/A)</th>
<th>Water Volume (GPA)</th>
<th>Hand-Held % Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Velvetgrass</td>
<td>3-5</td>
<td>3-20</td>
<td>2%</td>
</tr>
</tbody>
</table>

Apply when most plants are in the early head stage.

<table>
<thead>
<tr>
<th>Weed Species</th>
<th>Rate (QT/A)</th>
<th>Water Volume (GPA)</th>
<th>Hand-Held % Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wheatgrass, western</td>
<td>2-3</td>
<td>3-40</td>
<td>2%</td>
</tr>
</tbody>
</table>

For best results, apply when most plants have reached the boot-to-head stage of growth.

15.0 WOODY BRUSH AND TREES RATE TABLE

(Alphabetically by Species)

Apply this product after full leaf expansion, unless otherwise directed. Use the higher rate for larger plants and/or dense areas of growth. On vines, use the higher rate for plants that have reached the woody stage of growth. Best results are obtained when application is made in late summer or fall after fruit formation. In arid areas, best results are obtained when applications are made in the spring to early summer when brush species are at high moisture content and are flowering. Unless otherwise directed, apply broadcast treatments in 3 to 40 gallons of water per acre. Ensure thorough coverage when using hand-held equipment. Symptoms may not appear prior to frost or senescence with fall treatments. Allow 7 or more days after application before tillage, mowing or removal. Repeat treatments may be necessary to control plants regenerating from underground parts or seed. Some autumn colors on undesirable deciduous species are acceptable provided no major leaf drop has occurred. Reduced performance may result if fall treatments are made following a frost.

<table>
<thead>
<tr>
<th>Weed Species</th>
<th>Rate (QT/A)</th>
<th>Hand-Held % Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alder</td>
<td>3-4</td>
<td>1-1.5%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Weed Species</th>
<th>Rate (QT/A)</th>
<th>Hand-Held % Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ash*</td>
<td>2-5</td>
<td>1-2%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Weed Species</th>
<th>Rate (QT/A)</th>
<th>Hand-Held % Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aspen, quaking</td>
<td>2-3</td>
<td>1-1.5%</td>
</tr>
<tr>
<td>Weed Species</td>
<td>Rate (QT/A)</td>
<td>Hand-Held % Solution</td>
</tr>
<tr>
<td>------------------------------</td>
<td>-------------</td>
<td>-----------------------</td>
</tr>
<tr>
<td>Blackgum</td>
<td>2-5</td>
<td>1-2%</td>
</tr>
<tr>
<td>Bracken</td>
<td>2-5</td>
<td>1-2%</td>
</tr>
<tr>
<td>Broom; French, Scotch</td>
<td>2-5</td>
<td>1.5-2%</td>
</tr>
<tr>
<td>Buckwheat, California*</td>
<td>2-4</td>
<td>1-2%</td>
</tr>
<tr>
<td>Cascara*</td>
<td>2-5</td>
<td>1-2%</td>
</tr>
<tr>
<td>Catsclaw*</td>
<td>—</td>
<td>1-1.5%</td>
</tr>
<tr>
<td>Ceanothus*</td>
<td>2-5</td>
<td>1-2%</td>
</tr>
<tr>
<td>Chamise</td>
<td>—</td>
<td>1%</td>
</tr>
<tr>
<td>Cherry; bitter, black, pin</td>
<td>2-3</td>
<td>1-1.5%</td>
</tr>
<tr>
<td>Coyote brush</td>
<td>3-5</td>
<td>1.5-2%</td>
</tr>
<tr>
<td>Dogwood*</td>
<td>2-5</td>
<td>1-2%</td>
</tr>
<tr>
<td>Elderberry</td>
<td>2-3</td>
<td>1-1.5%</td>
</tr>
<tr>
<td>Elm*</td>
<td>2-5</td>
<td>1-2%</td>
</tr>
<tr>
<td>Eucalyptus</td>
<td>—</td>
<td>2%</td>
</tr>
<tr>
<td>Florida holly (Brazilian Peppertree)*</td>
<td>2-5</td>
<td>1-2%</td>
</tr>
<tr>
<td>Gorse*</td>
<td>2-5</td>
<td>1-2%</td>
</tr>
<tr>
<td>Hasardia*</td>
<td>2-4</td>
<td>1-2%</td>
</tr>
<tr>
<td>Hawthorn</td>
<td>2-3</td>
<td>1-1.5%</td>
</tr>
<tr>
<td>Hazel</td>
<td>2-3</td>
<td>1-1.5%</td>
</tr>
<tr>
<td>Hickory*</td>
<td>2-5</td>
<td>1-2%</td>
</tr>
<tr>
<td>Honeysuckle</td>
<td>3-4</td>
<td>1-1.5%</td>
</tr>
<tr>
<td>Hornbeam, American*</td>
<td>2-5</td>
<td>1-2%</td>
</tr>
<tr>
<td>Kudzu</td>
<td>4-5</td>
<td>2%</td>
</tr>
<tr>
<td>Locust, black*</td>
<td>2-4</td>
<td>1-2%</td>
</tr>
<tr>
<td>Madrone resprouts*</td>
<td>—</td>
<td>2%</td>
</tr>
<tr>
<td>Maple, red</td>
<td>2-4</td>
<td>1-1.5%</td>
</tr>
<tr>
<td>Maple, sugar</td>
<td>—</td>
<td>1-1.5%</td>
</tr>
<tr>
<td>Monkey flower*</td>
<td>2-4</td>
<td>1-2%</td>
</tr>
<tr>
<td>Oak; black, white*</td>
<td>2-4</td>
<td>1-2%</td>
</tr>
<tr>
<td>Oak; post</td>
<td>3-4</td>
<td>1-1.5%</td>
</tr>
<tr>
<td>Oak; northern</td>
<td>—</td>
<td>1-1.5%</td>
</tr>
<tr>
<td>Oak, southern red</td>
<td>2-3</td>
<td>1-1.5%</td>
</tr>
<tr>
<td>Persimmon*</td>
<td>2-5</td>
<td>1-2%</td>
</tr>
<tr>
<td>Pine</td>
<td>2-5</td>
<td>1-2%</td>
</tr>
<tr>
<td>Persimmon*</td>
<td>2-5</td>
<td>1-2%</td>
</tr>
<tr>
<td>Blackberry</td>
<td>3-4</td>
<td>1-1.5%</td>
</tr>
</tbody>
</table>

Make applications after plants have reached fall 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 0.75 percent 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.

### 16.0 LIMIT OF WARRANTY AND LIABILITY

This Company warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes set forth in the Complete Directions for Use label booklet ("Directions") when used in accordance with those Directions under the conditions described therein. NO OTHER EXPRESS WARRANTY OR IMPLIED WARRANTY OF FITNESS FOR PARTICULAR PURPOSE OR MERCHANTABILITY IS MADE. This warranty is also subject to the conditions and limitations stated herein.

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This Company does not warrant any product reformulated or repackaged from this product except in accordance with this Company’s stewardship requirements and with express written permission from this Company.

For over-the-top uses on Roundup Ready crop varieties crop safety and weed control performance are not warranted by this Company when this product is used in conjunction with ‘brown bag’ or ‘bin run’ seed saved from previous year’s production and replanted.

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EPA Reg. No. 524-445

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ST. LOUIS, MISSOURI 63167 USA

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VID 2.12.04