

# VENTI MAX™

GLYPHOSATE    GROUP    9    HERBICIDE

## HERBICIDE

**FOR NON-SELECTIVE, BROAD-SPECTRUM WEED CONTROL IN MANY AGRICULTURAL SYSTEMS, INCLUDING ROUNDUP READY OR GLYPHOSATE RESISTANT CROPS**

### ACTIVE INGREDIENT:

\*Glyphosate, N-(phosphonomethyl) glycine, in the form of its isopropylamine salt ..... 53.8%

**OTHER INGREDIENTS:** ..... 46.2%

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

\* Contains 648 grams per liter or 5.4 pounds per U.S. gallon of the active ingredient glyphosate, in the form of its isopropylamine salt. Equivalent to 480 grams per liter or 4.0 pounds per U.S. gallon of acid, glyphosate.

**KEEP OUT OF REACH OF CHILDREN  
CAUTION / PRECAUCIÓN**

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).

**For Chemical Spill, Leak, Fire, or Exposure, Call CHEMTREC (800) 424-9300.**

**SEE INSIDE BOOKLET FOR ADDITIONAL PRECAUTIONARY STATEMENTS.**

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**INNICTIS™**



**Distributed By:**  
**INNICTIS® CROP CARE, LLC**  
1880 Fall River Drive, Suite 100  
Loveland, CO 80538

### FIRST AID

#### IF IN EYES:

- Hold eye open and rinse slowly and gently with water for 15-20 minutes.
- Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
- Call a poison control center or doctor for treatment advice.

### HOTLINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For emergency information concerning this product, call the National Pesticides Information Center (NPIC) at **1-800-858-7378** or your poison control center at **1-800-222-1222**. For Chemical Spill, Leak, Fire or Exposure, call CHEMTREC **800-424-9300**.

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

Causes moderate eye irritation. **DO NOT** get in eyes, on skin, or on clothing. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

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

### PERSONAL PROTECTIVE EQUIPMENT (PPE)

**Applicators and other handlers must wear:** long-sleeved shirt and long pants, socks and shoes, and waterproof gloves.

Follow manufacturer's instructions for cleaning/maintaining PPE (Personal Protective Equipment). If there are no instructions for washables, 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.

**Important:** When reduced PPE is worn because a closed-system is being used, handlers must be provided all PPE specified above for "applicators and other handlers" and have such PPE immediately available for use in an emergency, such as a spill or equipment breakdown.

### USER SAFETY RECOMMENDATIONS

#### Users should:

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

### ENVIRONMENTAL HAZARDS

**DO NOT** apply directly to water, to areas where surface water is present or to intertidal areas below the mean high-water mark. **DO NOT** contaminate water when cleaning equipment or disposing of equipment wash waters and rinsate

### PHYSICAL OR CHEMICAL HAZARDS

Spray solutions of this product may be mixed, stored and applied using stainless steel, 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 can form a highly combustible gas mixture. This gas mixture could flash or explode if ignited by open flame, spark, welder's torch, lighted cigarette or other ignition source and cause serious personal injury.

### 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.

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

### AGRICULTURAL USE REQUIREMENTS

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

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

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is: coveralls, chemical resistant gloves greater than 14 mils in thickness composed of materials including butyl rubber, natural rubber, neoprene rubber, or nitrile rubber and shoes plus socks.

### NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries or greenhouses. Keep people and pets off treated areas until spray solution has dried.

### PRODUCT INFORMATION

**Product Description:** This product is a postemergence, 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, trees and vines. It is formulated as a water-soluble liquid containing surfactant and may be applied using standard and specialized pesticide application equipment after dilution and thorough mixing with water or other carrier according to label directions.

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

**No Soil Activity:** This product binds tightly to soil particles and does not provide residual weed control. Weeds must be emerged at the time of application to be controlled by foliar application of this product. Weed seeds in the soil will not be affected by this product and will continue to germinate. Unattached plant rhizomes and rootstocks beneath the soil surface will also not be affected by this product.

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

**Stage of Weeds:** Annual weeds are easiest to control when they are small. Enhanced control of most perennial weeds is obtained when this product is applied at late growth stages approaching maturity. Refer to the "ANNUAL WEEDS RATE SECTION," "PERENNIAL WEEDS RATE SECTION" and "WOODY BRUSH, TREES AND VINES RATE SECTION" for more information on the control of specific weeds.

**Cultural Considerations:** Reduced weed control could result when this product is applied to annual or perennial weeds that have been mowed, grazed or cut, and have not been allowed to re-grow prior to application. Always use a higher product application rate within the given range when weed growth is heavy or dense, or when weeds are growing in an undisturbed (non-cultivated) area. Reduced weed control could also result when this product is applied to weeds that show signs of disease or insect damage, are covered with dust, or are surviving under poor growing conditions.

**Spray Coverage:** For enhanced results, spray coverage must be uniform and complete. **DO NOT** spray foliage to the point of runoff.

**Rainfastness:** Rainfall within 4 hours of application could wash this product off of the foliage and a second application might then be needed for acceptable weed control. Refer to specific use sections of this label for additional information on the minimum intervals required before re-application of this product.

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

**Maximum Application Rates:** The maximum application or use rates stated throughout this label are given in units of volume (fluid ounces or quarts) of this product per acre. However, the maximum allowable application rates apply to this product combined with the use of any and all other herbicides containing the active ingredient glyphosate, whether applied separately or in a tank mixture, on a basis of total pounds of glyphosate (acid equivalents) per acre. If more than one glyphosate-containing product is applied to the same site within the same year, you must ensure that the total use of glyphosate (pounds acid equivalents) does not exceed the maximum allowed. See the "INGREDIENTS" section of this label for necessary product information.

Unless otherwise specified on this label, the combined total application of this product on a site must not exceed 6 quarts (6 lb ae) per acre per year. For applications on non-crop sites, on or tree, vine or shrub crop production sites, the combined total application of this product must not exceed 8 quarts (8 lb ae) per acre per year.

**Precaution:** Use of this product in any manner not consistent with this label could result in injury to persons, animals or crops, or have other unintended consequences.

#### RESISTANCE-MANAGEMENT RECOMMENDATIONS

For resistance management, this product is a Group 9 herbicide. Any weed population may contain or develop plants naturally resistant to this product and other Group 9 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same field. Appropriate resistance-management strategies should be followed.

#### Weed Management

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

- Rotate the use of this product or other Group 9 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds in the field.
- Use tank mixtures with herbicides from a different group if such use is permitted; where information on resistance in target weed species is available, use the less resistance-prone partner at a rate that will control the target weed(s) equally as well as the more resistance-prone partner. Consult your local extension service or certified crop advisor if you are unsure as to which active ingredient is currently less prone to resistance.

- Adopt an integrated weed-management program for herbicide use that includes scouting and uses historical information related to herbicide use and crop rotation, and that considers tillage (or other mechanical control methods), cultural (e.g., higher crop seeding rates; precision fertilizer application method and timing to favor the crop and not the weeds), biological (weed-competitive crops or varieties) and other management practices.
- Scout before and after herbicide application to monitor weed populations for early signs of resistance development. Indicators of possible herbicide resistance include: (1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; (2) a spreading patch of non-controlled plants of a particular weed species; (3) surviving plants mixed with controlled individuals of the same species. If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method such as hoeing or tillage. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields, and planting clean seed.
- If a weed pest population continues to progress after treatment with this product, discontinue use of this product, and switch to another management strategy or herbicide with a different mode of action, if available.
- Contact your local extension specialist or certified crop advisors for additional pesticide resistance-management and/or integrated weed-management recommendations for specific crops and weed biotypes.
- For further information or to report suspected resistance, contact Invictis Crop Care, LLC at 855-464-8428.

#### Management of Glyphosate-Resistant Biotypes

Appropriate testing is needed to determine if a weed is resistant to glyphosate. Contact your local sales representative, crop advisor, or extension agent to determine if resistance in any particular weed biotype has been confirmed in your area, or visit on the Internet [www.weedresistancemanagement.com](http://www.weedresistancemanagement.com) or [www.weedsience.org](http://www.weedsience.org).

Glyphosate-resistant weeds can be controlled or managed by applying this product in combination with residual preemergence herbicides and/or other postemergence herbicides labeled for control of the targeted weed in the crop being grown. For more information, see the "ANNUAL WEEDS RATE SECTION" and "PERENNIAL WEEDS RATE SECTION" of this label.

#### Integrated Pest (Weed) Management

This product may be integrated into an overall weed pest management strategy whenever the use of an herbicide is required. Practices known to reduce weed development (tillage, crop competition) and herbicide use (weed scouting, proper application timing, banding) should be followed wherever possible. Consult local agricultural and weed authorities for additional IPM strategies established for your area.

#### MIXING

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

Eliminate any risk of siphoning the contents of the tank back into the carrier source while mixing. Use approved anti-back-siphoning devices where required by State or local regulations.

A 50-mesh nozzle screen or line strainer on the spray equipment is adequate.

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

**RESTRICTION: 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.

#### Mixing with Water

This product mixes readily with water. Mix spray solutions of this product as follows. Begin filling the mixing tank or spray tank with clean water. Add the required amount of this product near the end of the filling process and mix gently. Foaming of the spray solution can occur during mixing. To prevent or minimize foaming, mix gently, terminate bypass and return lines at the bottom of the tank, and, if necessary, add an appropriate anti-foam or defoaming agent to the spray solution.

**PRECAUTION:** Performance of this product can be significantly reduced if water containing soil sediment is used as carrier.

**RESTRICTION:** **DO NOT** mix this product with water from ponds or ditches that is visibly muddy or murky.

#### Tank Mixtures

This product does not provide residual weed control. This product may be tank-mixed with other herbicides to provide residual weed control, a broader weed control spectrum or an alternate mode of action. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Some tank-mix products have the potential to cause crop injury under certain conditions, at certain growth stages, and/or under other circumstances. Read the label of all products to be used in the tank mixture prior to use to determine the potential for crop injury.

Tank mixtures with other herbicides, insecticides, fungicides, micronutrients or foliar fertilizers could result in reduced weed control or crop injury. INNVICTIS CROP CARE, LLC has not tested all tank-mix product formulations for compatibility, antagonism or reduction in product performance.

When a tank-mix with a generic active ingredient, such as 2,4-D, Atrazine, Dicamba, Diuron, Pendimethalin, or any other product or material, is listed on this label, the user is responsible for ensuring that the specific application being made is included on the label of the product being used in the mix.

For enhanced results, apply tank mixtures with this product at a minimum spray volume rate of 10 gallons per acre.

#### Tank-Mixing Procedure

Always predetermine the compatibility of all tank-mix products together in the carrier by mixing small proportional quantities in advance. Mix only the quantity of spray solution that will be applied that day. Application of tank-mix solutions that are allowed to stand overnight could result in reduced weed control.

Prepare tank mixtures of this product as follows:

1. Place a 20- to 35-mesh screen or wetting basket over the filling port of the tank.
2. Through the screen, fill the tank one-half full with water and start gentle agitation.
3. If ammonium sulfate is to be used, add it slowly through the screen into the tank and continue adding water into the tank through the screen. If dry ammonium sulfate is being used, ensure that it is completely dissolved in the tank before adding other products.
4. If a wettable powder is used, prepare a slurry of it with water and add it slowly through the screen into the tank while continuing gentle agitation.
5. If a flowable formulation is used, premix one part flowable with one part water and add the diluted mixture slowly through the screen into the tank while continuing gentle agitation.
6. If an emulsifiable concentrate formulation is used, premix one part emulsifiable concentrate with two parts water and add the diluted mixture slowly through the screen into the tank while continuing gentle agitation.
7. Continue filling the tank with water through the screen and add the required amount of this product near the end of the filling process.
8. If a nonionic surfactant is used, add it to the tank before completing the filling process. Add individual tank-mix components to the tank as follows: wettable powders, flowables, emulsifiable concentrates, drift reduction additives, water soluble liquids (this product), surfactant.

Maintain gentle agitation at all times until the contents of the tank are sprayed out. If the spray mixture is allowed to settle, agitate thoroughly to re-suspend the mixture before resuming application. Keep by-pass and return lines on or near the bottom of the tank

to minimize foaming. A 50-mesh nozzle screen or line strainer on the spray equipment is adequate.

#### Mixing Spray Solution Concentrations

All reference throughout this label to concentration of this product in a spray solution is on a percentage-of-volume basis.

Prepare the desired volume of spray solution at a given concentration by mixing the amount of this product indicated in the following table in water:

Desired Volume of Spray Solution	Amount of <b>VENTI MAX</b> to Achieve Indicated Concentration in Spray Volume (percent by volume)					
	0.5%	0.75%	1%	1.5%	5%	10%
1 gallon	2/3 fl oz	1 fl oz	1.3 fl oz	2 fl oz	6.5 fl oz	13 fl oz
25 gallons	1 pint	1.5 pint	1 qt	1.5 qt	5 qt	10 qt
100 gallons	2 qt	3 qt	1 gal	1.5 gal	5 gal	10 gal
2 tablespoons = 1 fluid ounce						

For filling backpack and pump-up sprayers, consider mixing the appropriate amount of this product with water in a larger container and then filling the sprayer from the larger container.

#### Surfactants

Nonionic surfactants that are labeled for use with herbicides may be used.

**RESTRICTIONS:** **DO NOT** add additional surfactant or additives containing surfactant to this product for preharvest application to cotton or any postemergence (in-crop) application to Roundup Ready or Glyphosate Resistant Cotton and Roundup Ready Flex Cotton. **DO NOT** reduce rates of this product when adding surfactant. Follow surfactant label for rates of use.

#### Ammonium Sulfate

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

**PRECAUTIONS:** When using ammonium sulfate, apply this product at rates directed on this label; lower application rates will result in reduced performance.

#### Colorants and Dyes

Colorants and marking dyes may be added to spray solutions of this product; however, they can reduce the performance of this product. Use colorants and dyes according to the manufacturer's directions.

#### Drift Reduction Additives

Drift reduction additives may be used with all equipment types, except wiper applicators, sponge bars and controlled droplet applicators (CDA). When a drift reduction additive is used, read and follow all precautions, limitations and all other information on the product label. Use of drift reduction additives can affect spray coverage, which could reduce the performance of this product.

#### APPLICATION EQUIPMENT AND TECHNIQUES

This product may be applied using the following equipment:

**Aerial Application Equipment** - fixed-wing and helicopter

**Ground Application Equipment** - boom or boomless systems, pull-type sprayers, floaters, pick-up sprayers, spray coupes and other ground broadcast application equipment

**Handheld Sprayers** – knapsack and backpack sprayers, pump-up pressure sprayers, handguns, handwands, mistblowers\*, lances and other handheld and motorized spray equipment used to direct the spray onto undesirable foliage

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

**Selective Application Equipment** – recirculating sprayer, shielded and hooded sprayers, wiper applicator, sponge bar, single or hollow stem injectors, tree injector, spray bottle

**Injection Systems** – aerial or ground injection sprayers

**Controlled Droplet Applicator (CDA)** – handheld or boom-mounted applicators that produce a spray pattern consisting of a narrow range of droplet sizes

Apply this product using properly maintained and calibrated equipment capable of accurately delivering desired volumes.

RESTRICTIONS: **DO NOT** apply this product through any type of irrigation system.

#### **Spray Drift Management**

Avoid contact of this herbicide with foliage, green stems, exposed non-woody roots or fruit of crops, desirable plants and trees, except as directed for use on Roundup Ready or glyphosate resistant crops, as severe plant injury or destruction could result.

**DO NOT** allow the herbicide solution to mist, drip, drift, or splash onto desirable vegetation, as small quantities of this product can cause severe damage or destruction to the crop, plants or other vegetation on which application was not intended.

Avoid drift. Use extreme care to prevent injury to desirable plants and crops when applying this product.

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment- and weather-related factors determines the potential for spray drift. The applicator and grower are responsible for considering all these factors when making decisions regarding the application of this product.

The likelihood of injury occurring as the result of spray drift while applying this product increases when winds are gusty, as wind velocity increases, when wind direction is constantly changing or when there are other meteorological conditions that favor spray drift. When spraying, avoid combinations of pressure and nozzle type that will result in splatter or generation of fine particles (mist) that are likely to drift.

To prevent injury to adjacent desirable vegetation, appropriate buffers must be maintained.

Avoid applying this product at excessive speed or sprayer pressure.

#### **Aerial Application Equipment**

Unless otherwise prohibited, all applications of this product described on this label may be made using aerial application equipment where appropriate, provided that the applicator complies with the precautions and restrictions specified on this label or on separate supplemental labeling published for this product.

**DO NOT** apply this product using aerial application equipment except under conditions specified on this label or on separately published supplemental labeling for this product.

For specific use instructions, restrictions and requirements related to the aerial application of this product in Arkansas and California, or specific counties therein, refer to the limitations on aerial application in that state or county presented in this section.

Unless otherwise directed, the maximum single application rate of this product is 48 fluid ounces per acre when using aerial application equipment. Apply this product at the appropriate rate in 3 to 15 gallons of water per acre unless otherwise directed on this label or on separate supplemental labeling for this product. Refer to the individual use sections of this label for application rates, spray volumes and additional directions for use.

Drift control reduction additives may be used.

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

#### **Aircraft Maintenance**

Thoroughly wash aircraft, especially landing gear, after each day of spraying to remove residues of this product accumulated during spraying or from spills. Prolonged exposure of this product to uncoated steel surfaces could result in corrosion and possible failure of the part. Landing gear is most susceptible. The maintenance of an organic coating (paint) that meets aerospace specification MIL-C-38413 can help prevent corrosion.

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

The following drift management requirements must be followed to avoid off-target movement during aerial applications to agricultural field crops. These requirements **DO NOT** apply to forestry applications.

1. The distance of the outermost nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
2. Nozzles must always point backward, parallel with the air stream and never be pointed downwards more than 45 degrees. Where states have more stringent regulations, they must be followed.

#### **Importance of Droplet Size**

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

#### **Controlling Droplet Size**

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

#### **Swath Adjustment**

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

#### **Wind**

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

#### **Temperature and Humidity**

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

### Temperature Inversions

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

### Sensitive Areas

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

**DO NOT** make application to any body of water.

### State Specific Limitations on Aerial Application

#### LIMITATIONS ON AERIAL APPLICATION IN CALIFORNIA ONLY

Follow the directions below when making an aerial application near non-target crops, desirable annual vegetation, or desirable perennial vegetation after bud break and before total leaf drop.

1. **DO NOT** apply this product within 100 feet of all desirable vegetation or non-target crops.
2. If winds are blowing up to 5 miles per hour toward desirable vegetation or non-target crops, **DO NOT** apply this product within 500 feet of the desirable vegetation or crops.
3. If winds are blowing between 5 and 10 miles per hour toward desirable vegetation or non-target crops, a buffer zone greater than 500 feet might be needed to protect the desirable vegetation or crops.
4. **DO NOT** apply this product using aerial application equipment when winds are blowing in excess of 10 miles per hour.
5. **DO NOT** apply this product using aerial application equipment when inversion conditions exist.

When tank-mixing this product with 2,4-D, only 2,4-D amine formulations may be applied in California using aerial application equipment. Tank mixtures of this product with 2,4-D amine formulations may be applied by air in California in fallow fields and in reduced tillage systems, and for alfalfa and pasture renovation applications only.

**PRECAUTIONS:** Avoid drift. Drift of this product onto any vegetation to which application was not intended can cause damage. To prevent injury to adjacent desirable vegetation, use proper aerial application equipment fitted with appropriate nozzles and maintain adequate buffers.

**RESTRICTIONS:** **DO NOT** apply when winds are gusty or under any other condition that favors drift. **DO NOT** apply this product using aerial application equipment in residential areas. This product, when tank-mixed with dicamba, may not be applied by air in California.

(cont'd)

#### LIMITATIONS ON AERIAL APPLICATION IN CALIFORNIA ONLY (cont'd)

#### ADDITIONAL LIMITATIONS ON AERIAL APPLICATION IN FRESNO COUNTY, CALIFORNIA ONLY

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

The following information applies from February 15 through March 31 within the following boundaries in Fresno County, California

**North:** Fresno County line

**South:** Fresno County line

**East:** State Highway 99

**West:** Fresno County line

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

#### Written Directions

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

#### Aerial Applicator Training and Equipment

Aerial application of this product is limited to pilots who have successfully completed a Fresno County Agricultural Commissioner and California Department of Pesticide Regulation approved training program for aerial application of herbicides. All aircraft must be inspected, critiqued in flight and certified at a Fresno County Agricultural Commissioner approved fly-in. Test and calibrate spray equipment at intervals sufficient to ensure that proper rates of herbicides and adjuvants are being applied during commercial use. Applicator must document such calibrations and testing. Demonstration of performance at Fresno County Agricultural Commissioner approved fly-ins constitutes such documentation, or other written records showing calculations and measurements of flight and spray parameters acceptable to the Fresno County Agricultural Commissioner.

**Application at Night - DO NOT** apply this product by air earlier than 30 minutes prior to sunrise and/or later than 30 minutes after sunset without prior permission from the Fresno County Agricultural Commissioner.

For additional information on the proper aerial application of this product in Fresno County, call 855-466-8428.

#### FOR AERIAL APPLICATION IN ARKANSAS ONLY

Apply this product at the appropriate rate of 3 to 15 gallons of water per acre.

Use sufficient carrier volume and appropriate equipment set-up to form droplets large enough to avoid drift potential. Coarse droplets in the 300 to 500 (VMD) micron range are specified.

Applications must be made with the nozzle release point at 8 to 15 feet above the top of the target plants unless a greater height is required for aircraft safety.

The distance of the outermost nozzles on the boom must not exceed 75 percent of the length of the wingspan or rotor. In many cases, reducing this distance to 65 percent of the length of the wingspan or rotor will improve drift control without affecting the swath width.

Nozzles must always discharge backward parallel with the air stream and never discharge downwards more than 45 degrees on fixed wing aircraft or forward of the prevailing airflow on rotary winged aircraft. **DO NOT** use nozzles with wide-angle discharge.

**DO NOT** apply this product when winds are in excess of 10 mph.

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

Follow the directions below when an aerial application is made near non-target crops or other desirable vegetation:

1. **DO NOT** apply within 100 feet of any desirable vegetation or crops.
2. If wind up to 5 mph is blowing toward desirable vegetation or crops, **DO NOT** apply within 500 feet upwind of the desirable vegetation or crops.
3. Winds blowing from 5 to 10 mph toward desirable vegetation or crops will likely require buffer zones in excess of 500 feet.

**PRECAUTIONS:** Avoid drift. Drift is likely to cause damage to any vegetation contacted. To prevent injury to adjacent desirable vegetation, appropriate buffer zones must be maintained.

**RESTRICTIONS:** **DO NOT** apply into still air where there is a temperature inversion layer low enough for fine spray particles to become suspended and move outside the target area when the inversion layer moves. **DO NOT** apply when winds are gusty or under any other condition that favors drift.

#### Ground Application Equipment

Use the specified rates of this product in 3 to 40 gallons of water per acre when making a broadcast application using ground application equipment, unless otherwise specified. As the weed density increases, increase the spray volume towards the upper end of this range to ensure complete coverage. Use nozzles that will avoid generating a fine mist. For enhanced results with ground application equipment, use flat-fan nozzles. Check spray pattern for uniform distribution of spray droplets.

#### Handheld Sprayers

When using a handheld sprayer, apply spray solutions of this product uniformly and completely to the foliage of target weeds using a coarse droplet spectrum and a spray-to-wet technique; **DO NOT** spray to the point of runoff. For the appropriate concentration of this product in the spray solution and timing of application to control certain weeds, woody brush, trees and vines, refer to the "ANNUAL WEEDS RATE SECTION," "PERENNIAL WEEDS RATE SECTION" and "WOODY BRUSH, TREES AND VINES RATE SECTION" of this label.

Spot treatment application of this product for weed control in a cropping system using a handheld sprayer may be made only when specifically directed on this label or on separate supplemental labeling for this product. The crop sprayed with this product will be killed along with the weeds. Take care not to spray or allow spray to drift outside the target area in order to avoid unwanted crop destruction.

#### Selective Application Equipment

Selective application equipment allows this product to be applied to weeds growing near the crop or other desirable vegetation without killing the desirable vegetation. Selective application equipment must be capable of preventing all contact of the herbicide solution with the crop or other desirable vegetation and operated without spray mist escape, leakage or dripping of the herbicide solution.

**PRECAUTIONS:** Avoid contact of this herbicide with desirable vegetation. Contact of this product with desirable vegetation could result in unwanted plant damage or destruction.

#### Shielded and Hooded Sprayers

A shielded sprayer directs the herbicide solution to the target weeds while protecting the crop or other desirable vegetation from coming into contact with the herbicide spray with an impervious material or shield. Use nozzles that provide uniform coverage within the application area. Keep shields properly adjusted to protect desirable vegetation.

A hooded sprayer is a type of shielded sprayer where the spray pattern is fully enclosed, including the top, sides, front and back, thereby shielding the crop or other desirable vegetation from the spray solution.

This product may be diluted in water and applied using a shielded or hooded sprayer to weeds listed on this label growing on any non-crop site described on this label and in between rows of plants (row middles) in any cropping system listed on this label.

Properly adjust the hood to protect desirable vegetation. Ensure that the hood is capable of completely enclosing the spray pattern. If necessary when applying around crops grown on raised beds, extend the front and rear flaps of the hooded sprayer downward to reach the ground in deep furrows.

A hooded sprayer must be configured and operated in a manner that minimizes bouncing and avoids raising the hood up off the ground surface at any time. If the hood is raised, spray particles can escape and come into contact with the crop, causing damage to or destruction of the crop or other desirable vegetation.

Use hoods designed to minimize excessive dripping or runoff down the inside of the hood, such as 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, with a spray volume of 20 to 30 gallons per acre.

The following procedures will help reduce the potential for crop injury when using a hooded sprayer:

- Operate the sprayer with the hood on the ground or skimming across the ground surface.
- Leave at least an 8-inch untreated strip over the drill row. (For example, if the crop row width is 38 inches, make the maximum width of the spray hood 30 inches.)
- Operate at a ground speed of no greater than 5 miles per hour to minimize bouncing of the hooded sprayer.
- Apply when wind speed is 10 miles per hour or less.
- Use low-drift nozzles that will provide uniform coverage within the application area.

Injury to a crop or other desirable vegetation can occur when application is made to foliage of weeds that come into direct contact with the crop or desirable vegetation. Droplets, mist, foam or splatter of the herbicide solution settling onto desirable vegetation can result in discoloration, stunting or destruction.

**RESTRICTIONS:** **DO NOT** operate this equipment on rough or sloping terrain where the spray hood is likely to rise up off the ground surface. **DO NOT** apply this product when leaves of desirable vegetation are growing in direct contact with weeds.

#### Wiper Applicator

A wiper applicator is a device that physically wipes this product or solutions of this product directly onto the target weed or cut stump. Any handheld device that is capable of physically wiping this product or solutions of this product directly onto the target weed or cut stump, such as a paint brush, may be used.



A mechanical wiper applicator, such as a rope wick or sponge bar that can be driven through a field over the top of a crop or other desirable vegetation to control weeds that are taller than the desirable vegetation, must be designed, maintained and operated to prevent the herbicide solution from contacting desirable vegetation.

Wiper applicators may be used over the top of food or feed crops only if specifically permitted for use over that crop by this label or by separately published supplemental labeling for this product.

When using a mechanical wiper applicator, adjust the height of the applicator to ensure adequate contact with weeds and so that the wiper contact point is a minimum of 2 inches above the desirable vegetation. Enhanced results can be obtained when more of the weed is exposed to the herbicide solution and weeds are a minimum of 6 inches above the desirable vegetation. Weeds that do not come into contact with the herbicide solution will not be affected. Poor contact can occur when weeds are growing in dense clumps, when operating in an area of severe weed infestation, or when weed height varies dramatically. In these situations, more than one application of this product might be necessary.

Operate wiper applicators at a ground speed of no greater than 5 miles per hour. Performance in areas of heavy weed infestation can be improved by reducing speed, which will provide more time for re-saturation of the wiper with the herbicide solution and more contact time of the wiper with the weed. Enhanced results with a wiper applicator can be obtained when two applications are made travelling in opposite directions in the field.

Keep wiper surfaces clean.

**PRECAUTIONS:** Droplets, mist, foam or splatter of the herbicide solution settling onto desirable vegetation can result in discoloration, stunting or destruction. Avoid leakage or dripping onto desirable vegetation. Be aware that on sloping ground the herbicide solution can migrate to one side, causing dripping on the lower end and drying of the wiper on the upper end of the applicator.

**RESTRICTIONS:** **DO NOT** apply this product using a wiper applicator when weeds are wet. **DO NOT** add surfactant to the herbicide solution when using a wiper applicator.

**For Rope and Sponge Wick Applicators** - use solutions ranging from 33 to 75 percent of this product in water.

**For Panel Applicators**—use solutions ranging from 33 to 90 percent of this product in water.

Mix only the amount of this product that will be used during a 1-day period, as reduced product performance can result from the use of solutions held in storage.

Clean wiper parts promptly after using this product by thoroughly flushing with water.

### **Injection Systems**

This product may be used in aerial and ground injection spray systems as a liquid concentrate or diluted prior to injecting into the spray stream. **DO NOT** mix this concentrated product with the undiluted concentrate of other products for use in injection systems, unless otherwise directed.

### **Controlled Droplet Applicator (CDA)**

The amount of this product applied per acre using a controlled droplet applicator (CDA) must be no less than the rate specified on this label for application using conventional broadcast application equipment.

A controlled droplet applicator produces a spray pattern that is not easily visible. Use extreme care to avoid spray or drift from contacting the foliage or any other green tissue of desirable vegetation, as plant damage or destruction could result.

### **ANNUAL AND PERENNIAL CROPS**

This section provides directions for use of this product that apply to all crops listed in the following sections. See the individual crop sections for specific use instructions, preharvest intervals, and additional precautions and restrictions.

See the "ROUNDUP READY OR GLYPHOSATE RESISTANT CROPS" section of this label, or separately published supplemental labeling for this product, for directions for use in Roundup Ready or glyphosate resistant crops.

**TYPES OF APPLICATION:** Chemical Fallow; Preplant Fallow Beds; Preplant; At-Planting; Preemergence; Hooded Sprayer in Row Middles; Shielded Sprayer in Row Middles; Wiper Applicator in Row Middles; Post-Harvest

**USE INSTRUCTIONS:** This product may be applied during fallow intervals preceding planting, prior to planting or transplanting, at-planting, or preemergence to annual and perennial crops listed on this label, except where specifically limited. For any crop not listed on this label, application must be made a minimum of 30 days prior to planting. Unless otherwise directed, apply this product according to the rates listed in the "ANNUAL WEEDS RATE SECTION," "PERENNIAL WEEDS RATE SECTION" and "WOODY BRUSH, TREES AND VINES RATE SECTION" of this label. Application rates specified on this label for hard-to-control weeds, or those specified on separate supplemental labeling for this product, supersede the rates in the "ANNUAL WEEDS RATE SECTION," "PERENNIAL WEEDS RATE SECTION" and "WOODY BRUSH, TREES AND VINES RATE SECTION" of this label. Additional information on hard-to-control weeds can be found on Fact Sheets published for this product.

Application of this product may be repeated as needed up to a maximum of 6 quarts (6.0 lb ae) per acre per year. Refer to specific use sections of this label for additional information on minimum intervals required before re-application of this product.

Hooded sprayers and wiper applicators capable of preventing all contact of the herbicide solution with the crop may be used in mulched or unmulched row middles after crop establishment. Wiper applicators may be used over the top of crops to control tall weeds only when specifically directed in the individual crop sections that follow. Crop injury is possible with these methods of application. Refer to the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for information regarding the potential for crop injury using selective application equipment.

Spot treatment application of this product for weed control in a cropping system may be made only when specifically directed in the individual crop sections that follow.

Unless otherwise prohibited, all applications of this product described in the sections that follow may be made using aerial application equipment where appropriate, provided that the applicator complies with the precautions and restrictions specified on this label and on all supplemental labeling published for this product. Refer to the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for information on aerial application and procedures for avoiding spray drift that could cause injury to any vegetation not intended for application. Use of appropriate buffers will help prevent injury to adjacent vegetation.

**TANK MIXTURES:** This product may be tank-mixed with other herbicides to provide residual weed control, a broader weed control spectrum or an alternate mechanism of action. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Always predetermine the compatibility of tank-mix products together in the carrier by mixing small proportional quantities in advance. Mixing other products with this herbicide in the spray tank can cause incompatibility, antagonism, or a reduction in the efficacy of this product. INNVCITIS CROP CARE, LLC has not tested all product formulations for compatibility or performance in a tank-mix with this product.

**PRECAUTIONS:** Avoid contact of this herbicide with foliage, green shoots or stems, bark, exposed roots (including those emerging from plastic mulch), or fruit of crops, as severe crop injury or destruction could result. Transplant seedlings coming into contact with weeds that are still wet with a spray solution of this product could result in significant crop injury. When making preemergence applications, application must be made before crop emergence to avoid severe crop injury. Broadcast application of this product at emergence will result in injury or death of emerged seedlings. Apply before seed germination in coarse sandy soils



to further minimize the risk of crop injury. In crops where spot treatment is allowed, the crop sprayed with this product will be killed along with the weeds. Take care not to spray or allow spray to drift outside the target area in order to avoid unwanted crop destruction. See the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for additional information.

Preharvest application on crops grown for seed could result in a reduction in germination or vigor.

**RESTRICTIONS:** Observe the maximum application rates stated throughout this label. Maximum application rates apply to the use of this product combined with the use of any and all other herbicides containing glyphosate as the active ingredient, whether applied separately or as mixtures. Calculate the application rates (glyphosate acid equivalents) and ensure that the total use of this and other glyphosate-containing products does not exceed the stated maximum rate. See the "PRODUCT INFORMATION" section of this label for more information on Maximum Application Rates.

Unless otherwise directed on this label, application using selective equipment, including wiper applicators and hooded sprayers, must be made a minimum of 14 days prior to harvest. In crops where spot treatment is allowed, **DO NOT** apply this product to more than 10 percent of the total field to be harvested, unless otherwise directed. Post-harvest and fallow applications must be made a minimum of 30 days prior to the planting of any crop not listed on this label.

**DO NOT** harvest or feed vegetation from an area for 8 weeks following broadcast postemergence application, unless otherwise directed.

Unless otherwise specified on this label, the combined total application of this product on a site must not exceed 6 quarts (6 lb ae) per acre per year. For applications on non-crop sites, or on tree, vine or shrub crop production sites, the combined total application of this product must not exceed 8 quarts (8 lb ae) per acre per year.

### **Cereal and Grain Crops**

**LABELLED CROPS:** Barley; Buckwheat; Millet (pearl, proso); Oats; Rice; Rye; Quinoa; Teff; Teosinte; Triticale; Wheat (all types); Wild Rice

**TYPES OF APPLICATION:** Those listed under "ANNUAL AND PERENNIAL CROPS - TYPES OF APPLICATIONS" section above plus Red Rice Control Prior to Planting Rice; Spot Treatment (except rice); Control of Barnyardgrass in Rice Using Renovation Treatment (California only); Wiper Applicator (feed barley and wheat only); Preharvest (feed barley and wheat only)

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

**USE INSTRUCTIONS:** This product may be applied before, during or after the planting of cereal crops, but prior to crop emergence.

### **Red Rice Control Prior to Planting Rice**

**USE INSTRUCTIONS:** Flush fields prior to application to obtain uniform germination and stand of red rice and then apply 36 fluid ounces (1.13 lb ae) of this product in 5 to 10 gallons of water per acre when the majority of the red rice plants are at the 2-leaf stage and no more than 4 inches tall. Red rice plants with less than 2 true leaves might only be partially controlled. Avoid spraying during conditions of low humidity, as reduced control of red rice could result.

**RESTRICTIONS:** **DO NOT** apply this product to rice fields or levees when fields contain floodwater. **DO NOT** flood fields for a minimum of 8 days following application.

### **Spot Treatment (Except Rice)**

**USE INSTRUCTIONS:** This product may be applied as a spot treatment in cereal crops, except rice. Apply before heading in small grains.

**RESTRICTIONS:** **DO NOT** apply this product to more than 10 percent of the total field area to be harvested.

### **Control of Barnyardgrass in Rice Using Renovation Treatment (California Only)**

THIS APPLICATION FOR USE IN CALIFORNIA ONLY

**USE INSTRUCTIONS:** This product may be applied as a renovation treatment in rice crops to control barnyardgrass (*Echinochloa crus-galli*) infestations using ground broadcast application equipment or a handheld sprayer. Renovation is defined as an herbicide application that will result in crop and weed destruction in an entire field or contiguous area within a field.

**RESTRICTIONS:** Rice straw and stubble from the application area plus an additional 25 feet on all sides of the area may not be used for animal bedding, grazing, or any other feed purpose. **DO NOT** make this application using aerial application equipment.

### **Wiper Applicator (Feed Barley and Wheat Only)**

**USE INSTRUCTIONS:** This product may be applied over the top of feed barley and wheat using a wiper applicator to control tall weeds. To control common rye or cereal rye, apply after weeds have headed and achieved maximum growth. See additional instructions on the use of wiper applicators in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label.

**RESTRICTIONS:** **DO NOT** use roller applicator. **Preharvest Interval (PHI):** 35 days after treatment.

### **Preharvest (Feed Barley and Wheat Only)**

**USE INSTRUCTIONS:** This product provides weed control when applied prior to harvest of feed barley or wheat. For feed barley, apply after the hard-dough stage when grain moisture is 20 percent or less. For wheat, apply after the hard-dough stage when grain moisture is 30 percent or less. Stubble may be grazed immediately after harvest.

Apply this product in 10 to 20 gallons of water per acre when using ground application equipment and in 3 to 10 gallons of water per acre when using aerial application equipment.

**RESTRICTIONS:** **DO NOT** apply more than 24 fluid ounces (0.75 lb ae) of this product per acre for preharvest application. **Preharvest Interval (PHI):** 7 days after treatment for harvest or grazing.

### **Post-Harvest**

**USE INSTRUCTIONS:** This product may be applied for weed control after harvest of cereal crops. Higher rates might be needed to control large weeds that were growing in the field at the time of harvest. Tank mixtures with 2,4-D or dicamba may be used. Ensure that the product used is labeled for weed control following harvest of cereal crops. Read and follow label directions for all products in the tank mixture.

**RESTRICTIONS:** Application must be made a minimum of 30 days prior to the planting of any crop not listed on this label. **Preharvest Interval (PHI):** 7 days after treatment for harvest or feeding of vegetation.

### **Corn**

**TYPES OF CORN:** Field corn; Popcorn; Seed corn; Silage corn; Sweet corn

**TYPES OF APPLICATION:** Those listed under "ANNUAL AND PERENNIAL CROPS - TYPES OF APPLICATIONS" section above plus Spot Treatment; Preharvest

For directions for use with field corn hybrids with Roundup Ready 2 Technology (including Roundup Ready Corn 2 and field corn products displaying the Roundup Ready 2 Technology logo), or with sweet corn hybrids with Roundup Ready 2 Technology or glyphosate resistant (including Roundup Ready Sweet Corn and sweet corn products displaying the Roundup Ready 2 Technology logo), see the "ROUNDUP READY OR GLYPHOSATE RESISTANT CROPS" section of this label.

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

**USE INSTRUCTIONS:** This product may be applied alone or in a tank-mix before, during or after planting corn, but prior to crop emergence.

**TANK MIXTURES:** This product may be tank-mixed with the following products. Ensure that the product used is labeled for application prior to the planting or the emergence of the type of corn crop being grown. Read and follow label directions for all products in the tank mixture. Apply these tank mixtures in 10 to 20 gallons of water or 10 to 60 gallons of nitrogen solution per acre.

2,4-D	Dimethenamid	Metolachlor
Acetochlor	Dimethenamid-P	S-metolachlor
Atrazine	Flufenacet	Metribuzin
Bicyclopyrone	Flumetsulam	Pendimethalin
Carfentrazone-Ethyl	Flumiclorac Pentyl Ester	Rimsulfuron
Clopyralid	Isoxaflutole	Saflufenacil
Dicamba	Linuron	Salmazine
Diflufenzopyr	Mesotrione	Thiencarbazone-Methyl

For hard-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 24 fluid ounces (0.75 lb ae) of this product per acre in these tank mixtures. For other annual weeds listed on this label, apply 18 to 24 fluid ounces (0.56 – 0.75 lb ae) of this product per acre when weeds are less than 6 inches tall and 24 to 36 fluid ounces (0.75 – 1.13 lb ae) per acre when weeds are over 6 inches tall. When using a nitrogen solution as the carrier, higher application rates might be needed for acceptable weed control.

**RESTRICTIONS:** Application of 2,4-D or dicamba must be made a minimum of 7 days prior to planting corn.

In Southern states, **DO NOT** mix this product in nitrogen solutions for application to hard-to-control grasses, such as barnyardgrass, fall panicum, broadleaf signalgrass, annual ryegrass and any perennial weeds. This area includes Illinois and Indiana south of Route 50, Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, New Jersey, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia and West Virginia.

#### **Hooded Sprayer**

**USE INSTRUCTIONS:** This product may be applied using a hooded sprayer for weed control in between rows of corn. Only hooded sprayers that completely enclose the spray pattern may be used. See additional instructions on the use of hooded sprayers in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label.

**RESTRICTIONS:** Corn must be at least 12 inches tall, measured without extending leaves. **DO NOT** apply more than 24 fluid ounces (0.75 lb ae) of this product per acre for each hooded sprayer application and no more than 72 fluid ounces (2.25 lb ae) per acre per year total.

#### **Spot Treatment**

**USE INSTRUCTIONS:** This product may be applied as a spot treatment prior to silking of corn.

**RESTRICTIONS:** **DO NOT** apply this product to more than 10 percent of the total field area to be harvested.

#### **Preharvest**

**USE INSTRUCTIONS:** Up to 72 fluid ounces (2.25 lb ae) of this product per acre may be applied using ground application equipment, or up to 48 fluid ounces (1.50 lb ae) per acre using aerial application equipment, when kernel-fill is complete and the corn is physiologically mature (black layer formed) and grain moisture is 35 percent or less.

**RESTRICTIONS:** **Preharvest Interval (PHI):** 7 days after treatment.

#### **Post-Harvest**

**USE INSTRUCTIONS:** This product may be applied for weed control after harvest of corn. Higher rates might be needed to control large weeds that were growing in the field at the time of harvest. Tank mixtures with 2,4-D or dicamba may be used. Ensure that the product

used is labeled for post-harvest application in corn. Read and follow label directions for all products in the tank mixture.

**RESTRICTIONS:** Application of this product must be made a minimum of 30 days prior to planting any crop not listed on this label. **Preharvest Interval (PHI):** 7 days after treatment for harvest or feeding of vegetation.

#### **Cotton**

**TYPES OF APPLICATION:** Those listed under "ANNUAL AND PERENNIAL CROPS - TYPES OF APPLICATIONS" section above plus Selective Equipment; Spot Treatment; Preharvest

For directions for use with Roundup Ready or glyphosate tolerant cotton and Roundup Ready Flex cotton, see the "ROUNDUP READY OR GLYPHOSATE RESISTANT CROPS" section of this label.

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

**USE INSTRUCTIONS:** This product may be applied before, during or after planting cotton, but prior to crop emergence.

**TANK MIXTURES:** This product may be tank-mixed with 2,4-D or Dicamba and applied prior to planting only. This product may also be tank-mixed with the following products and applied prior to crop emergence. Ensure that the product used is labeled for application prior to planting or the emergence of cotton. Read and follow label directions for all products used in the tank mixture. Apply these tank mixtures in 10 to 20 gallons of water per acre.

Acetochlor	Fomesafen	Pendimethalin
Clomazone	Metolachlor	Prometryn
Diuron	S-Metolachlor	Pyriothiac-Sodium
Flumioxazin	Norflurazon	Saflufenacil
Flumeturon		

#### **Selective Equipment**

**USE INSTRUCTIONS:** This product may be applied using a hooded or shielded sprayer, or over the top of cotton using a wiper applicator to control tall weeds. See additional instructions on the use of this selective equipment in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label.

**RESTRICTIONS:** **Preharvest Interval (PHI):** 7 days after treatment.

#### **Spot Treatment**

**USE INSTRUCTIONS:** This product may be applied in cotton as a spot treatment prior to boll opening.

**RESTRICTIONS:** **DO NOT** apply this product to more than 10 percent of the total field area to be harvested.

#### **Preharvest**

**USE INSTRUCTIONS:** This product provides weed control and cotton re-growth inhibition when applied prior to harvest. For weed control, apply at rates given in the "ANNUAL WEEDS RATE SECTION" and "PERENNIAL WEEDS RATE SECTION" of this label. For cotton re-growth inhibition, apply 12 to 48 fluid ounces (0.38 – 1.50 lb ae) of this product per acre. Make preharvest application only after sufficient bolls have developed to produce the desired yield. Application made prior to this time could affect maximum yield potential.

**TANK MIXTURES:** This product may be tank-mixed with Diuron, Ethephon, Thidiazuron or Tribufos, to enhance cotton leaf-drop. Read and follow label directions for all products used in the tank mixture.

**RESTRICTIONS:** **Preharvest Interval (PHI):** 7 days after treatment.

#### **Fallow Systems**

This product may be applied during the fallow period prior to planting or emergence of any crop listed on this label. Application must be made a minimum of 30 days prior to the planting of any crop not listed on this label.

**TYPES OF APPLICATION:** Chemical Fallow; Preplant Fallow Beds; Aid-to-Tillage

## Chemical Fallow

USE INSTRUCTIONS: This product may be used as a substitute for tillage to control annual weeds in fallow fields. Broadcast or spot treatment application will also control or suppress many perennial weeds in fallow fields. Tank-mix this product with 2,4-D or dicamba for a broader weed control spectrum. Aerial application of up to 48 fluid ounces (1.50 lb ae) of this product per acre may be made onto fallow fields where there is sufficient buffer to prevent injury due to drift onto adjacent crops.

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

## Preplant Fallow Beds

USE INSTRUCTIONS: This product will control weeds listed in the "ANNUAL WEEDS RATE SECTION," "PERENNIAL WEEDS RATE SECTION" and "WOODY BRUSH, TREES AND VINES RATE SECTION" of this label prior to planting.

TANK MIXTURES: Apply 9 fluid ounces (0.28 lb ae) of this product per acre in a tank-mix with an appropriate rate of Oxyfluorfen to control the following weeds up to the maximum height or length indicated: 3 inches - common cheeseweed, chickweed, groundsel; 6 inches - London rocket, shepherd's-purse.

Apply 12 fluid ounces (0.38 lb ae) of this product per acre in a tank-mix with an appropriate rate of Oxyfluorfen to control the following weeds up to 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 in fallow systems, or prior to the planting of crops listed on this label (preplant), to control downy brome, cheat, volunteer wheat, tansy mustard and foxtail. Apply 9 fluid ounces (0.28 lb ae) of this product in 3 to 10 gallons of water per acre before weeds are 6 inches in height.

PRECAUTIONS: Tank mixtures with residual herbicides could result in reduced performance of this product.

RESTRICTIONS: Application must be followed by conventional tillage no later than 15 days after application and before re-growth occurs. Allow a minimum of 1 day after application before tillage.

## Grain Sorghum (Milo)

TYPES OF APPLICATION: Those listed under "ANNUAL AND PERENNIAL CROPS - TYPES OF APPLICATIONS" section above plus Spot Treatment; Wiper Applicator; Preharvest

## Preplant, At-Planting, Preemergence

USE INSTRUCTIONS: This product may be applied alone or in a tank mixture before, during or after planting grain sorghum, but prior to crop emergence.

TANK MIXTURES: This product may be tank-mixed with the following products. Ensure that the product used is labeled for application prior to planting or emergence of grain sorghum. Read and follow label directions for all products used in the tank mixture. Apply these tank mixtures in 10 to 20 gallons of water or 10 to 60 gallons of nitrogen solution per acre.

Acetochlor	Metolachlor	Salfufenacil
Atrazine	S-metolachlor	

For hard-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 24 fluid ounces (0.75 lb ae) of this product per acre in a tank mixture with one or more of the products listed here.

For control of other annual weeds listed on this label, apply 18 to 24 fluid ounces (0.56 – 0.75 lb ae) of this product per acre when weeds are less than 6 inches tall and 24 to 36 fluid ounces (0.75 – 1.13 lb ae) per acre when weeds are over 6 inches tall. When using a nitrogen solution as the carrier, the application rate might need to be increased to achieve acceptable weed control.

## Spot Treatment, Wiper Applicator

USE INSTRUCTIONS: This product may be applied as a spot treatment in grain sorghum before heading. This product may also be applied over the top of grain sorghum using a wiper applicator to control or suppress tall weeds. See additional instructions on the use of wiper applicators in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label.

RESTRICTIONS: For spot treatment, **DO NOT** apply this product to more than 10 percent of the total field area to be harvested. **DO NOT** use a roller applicator. **DO NOT** feed or graze grain sorghum fodder or ensile vegetation collected from within the application area. **Preharvest Interval (PHI):** 40 days after treatment when applied using a wiper application.

## Hooded Sprayer

USE INSTRUCTIONS: This product may be applied using a hooded sprayer for weed control in between rows of grain sorghum. Make application before grain sorghum sends tillers between the drill rows. If tillers are sprayed with this herbicide, the main plant could be damaged or destroyed. Contact of this product in any manner with any vegetation to which application is not intended could cause damage. Only hooded sprayers that completely enclose the spray pattern may be used. See additional instructions on the use of hooded sprayers in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label.

RESTRICTIONS: Grain sorghum must be at least 12 inches tall, measured without extending leaves. **DO NOT** graze or feed grain sorghum forage or fodder following application of this product using a hooded sprayer. **DO NOT** apply more than 24 fluid ounces (0.75 lb ae) of this product per acre per hooded sprayer application and no more than 72 fluid ounces (2.25 lb ae) per acre per year total.

## Preharvest

USE INSTRUCTIONS: Up to 48 fluid ounces (1.50 lb ae) of this product per acre may be applied after sorghum grain has reached 30 percent moisture or less. As with other herbicides that cause sudden plant death, avoid preharvest application of this product on grain sorghum (milo) infected with charcoal rot as lodging can occur.

RESTRICTIONS: Preharvest application of this product on grain sorghum (milo) is not registered for use in California. **Preharvest Interval (PHI):** 7 days after treatment.

## Post-Harvest

USE INSTRUCTIONS: This product may be applied for weed control after harvest of grain sorghum. Higher application rates might be needed to control large weeds that were growing in the field at the time of harvest. Tank mixtures with 2,4-D or dicamba may be used. Ensure that the product used is labeled for post-harvest application in grain sorghum (milo). Read and follow label directions for all products in the tank mixture.

This product may be applied to grain sorghum stubble following harvest to control or suppress re-growth. Apply 24 fluid ounces (0.75 lb ae) of this product per acre for control or 18 fluid ounces (0.56 lb ae) per acre for suppression.

RESTRICTIONS: Application must be made a minimum of 30 days prior to the planting of any crop not listed on this label. **Preharvest Interval (PHI):** 7 days after treatment for harvest or feeding of vegetation.

## Herbs and Spices

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

**TYPES OF APPLICATION:** Those listed under "ANNUAL AND PERENNIAL CROPS - TYPES OF APPLICATIONS" section above plus Spot Treatment (peppermint and spearmint only); Wiper Applicator (peppermint and spearmint only)

**PRECAUTIONS:** This product could cause crop injury when applied prior to transplanting or direct-seeding crops into plastic mulch. Remove residual product from the plastic prior to planting with a single 0.5-inch application of water, either by natural rainfall or by irrigation. Ensure that the wash water flushes off the plastic mulch and does not enter the transplant holes. Application made at crop emergence will result in injury or death of emerged seedlings.

#### Spot Treatment, Wiper Applicator (Peppermint and Spearmint Only)

**USE INSTRUCTIONS:** This product may be applied as a spot treatment in peppermint and spearmint or over the top of peppermint and spearmint using a wiper applicator to control tall weeds. Application may be repeated in the same area at 30-day intervals. See additional instructions on the use of wiper applicators in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label.

**RESTRICTIONS:** For spot treatment application, **DO NOT** apply this product to more than 10 percent of the total field area to be harvested. **Preharvest Interval (PHI):** 7 days after treatment.

#### Oilseed Crops

**LABELLED CROPS:** Borage; Buffalo gourd; Calendula; Canola; Castor oil plant; Chinese tallowtree; Crambe; Cuphea; Echinium; Euphorbia; Evening primrose; Flax; Gold of pleasure; Hare's ear mustard; Joboba; Lesquerella; Meadowfoam; Milkweed; Mustard; Niger seed; Oil radish; Poppy; Rape; Rose hip; Safflower; Sesame; Stokes aster; Sunflower; Sweet rocket; Tallowwood; Tea oil plant; Vernonia

For directions for use with Roundup Ready or glyphosate resistant canola and TruFlex™ Roundup Ready canola, see the "ROUNDUP READY OR GLYPHOSATE RESISTANT CROPS" section of this label.

**TYPES OF APPLICATION:** Those listed under "ANNUAL AND PERENNIAL CROPS - TYPES OF APPLICATIONS" section above plus Preharvest (except buffalo gourd)

**USE INSTRUCTIONS:** Refer to the following table for maximum application rates of this product for use in safflower, sunflower and all other oilseed crops listed in this section, if a preharvest application is to be made. If a preharvest application is not to be made, the maximum application rate of this product for all preemergence, selective equipment and post-harvest applications in any oilseed crop listed in this section is limited only by the maximum of 6 quarts (6.0 lb ae) per acre per year. If a preharvest application is intended to be made to any crop listed in this section, except buffalo gourd, the maximum combined total of all preemergence and selective equipment applications is limited as indicated in the following table. See the "PRODUCT INFORMATION" section of this label for more information on Maximum Application Rates.

Maximum Application Rates (Per Acre) if a Preharvest Application is Made		
<b>Safflower</b>		
Combined total for all Preemergence and Selective Equipment applications		72 fluid ounces (2.25 lb ae)
Preharvest application		72 fluid ounces (2.25 lb ae)
<b>Sunflower</b>		
Combined total for all Preemergence and Selective Equipment applications		24 fluid ounces (0.75 lb ae)
Preharvest application		24 fluid ounces (0.75 lb ae)
<b>All Other Oilseed Crops Listed (Except Buffalo Gourd)</b>		
Combined total for all Preemergence and Selective Equipment applications		48 fluid ounces (1.50 lb ae)
Preharvest application		36 fluid ounces (1.13 lb ae)

**RESTRICTIONS:** **DO NOT** exceed a total application rate of 6 quarts (6.0 lb ae) of this product per acre per year. Preharvest application is not permitted on buffalo gourd.

#### Preplant, At-Planting, Preemergence

**USE INSTRUCTIONS:** This product may be applied before, during or after planting oilseed crops listed in this section, but must be applied prior to crop emergence. Observe the maximum application rates listed at the beginning of this section.

**TANK MIXTURES:** For sunflower, a tank mixture with pendimethalin may be applied before, during or after planting into conventionally tilled soil, a cover crop, established sod or previous crop residue.

**RESTRICTIONS:** See the use instructions at the beginning of this section for important information on maximum application rates for preemergence and selective equipment applications of this product.

#### Selective Equipment

**USE INSTRUCTIONS:** This product may be applied using a wiper applicator or shielded sprayer between crop rows once the crop is established. Observe the maximum application rates listed at the beginning of this section. See additional instructions on the use of wiper applicators and hooded sprayers in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label.

#### Preharvest (Except Buffalo Gourd)

**USE INSTRUCTIONS:** This product provides weed control and serves as a harvest aid when applied to a physiologically mature oilseed crop listed in this section. For safflower, up to 72 fluid ounces (2.25 lb ae) of this product may be applied per acre when seed has lost its opaque character, approximately 20 to 30 days after the end of flowering of the secondary branches. For sunflower, up to 24 fluid ounces (0.75 lb ae) of this product per acre may be applied when the backside of sunflower heads are yellow and bracts are turning brown, and seed moisture content is less than 35 percent. For all other oilseed crops listed in this section (except buffalo gourd), up to 36 fluid ounces (1.13 lb ae) of this product per acre may be applied prior to harvest.

**RESTRICTIONS:** **DO NOT** make a preharvest application if you have exceeded the maximum application rates for the combined total of all preemergence and selective equipment applications listed in the table at the beginning of this section. Make only 1 preharvest application of this product. Application must be made a minimum of 30 days prior to the planting of any crop not listed on this label. Preharvest application is not allowed on buffalo gourd or on Roundup Ready or glyphosate resistant or TruFlex Roundup Ready canola. **Preharvest Interval (PHI):** 30 days after treatment for harvest or feeding to livestock.

#### Post-Harvest

**USE INSTRUCTIONS:** This product may be applied for weed control after harvest of oilseed crops. Higher application rates might be needed for control of large weeds that were growing in the field at the time of harvest. Tank mixtures with 2,4-D or dicamba may be used. Ensure that the product used is labeled for post-harvest application in the crop harvested. Read and follow label directions for all products in the tank mixture.

**RESTRICTIONS:** **DO NOT** exceed a total application rate of 6 quarts (6.0 lb ae) of this product per acre per year. Application must be made a minimum of 30 days prior to the planting of any crop not listed on this label. **Preharvest Interval (PHI):** 7 days after treatment for harvest or feeding of vegetation.

#### Soybean

**TYPES OF APPLICATION:** Those listed under "ANNUAL AND PERENNIAL CROPS - TYPES OF APPLICATIONS" section above plus Spot Treatment; Selective Equipment; Preharvest

For directions for use with Roundup Ready soybean, Roundup Ready 2 Yield soybean and glyphosate resistant soybeans, see the "ROUNDUP READY OR GLYPHOSATE RESISTANT CROPS" section of this label.

#### Preplant, At-Planting, Preemergence

**USE INSTRUCTIONS:** This product may be applied alone or in a tank mixture before, during or after planting soybean, but prior to crop emergence.

**TANK MIXTURES:** This product may be tank-mixed with 2,4-D or Dicamba and applied prior to planting only. This product may also be tank-mixed with the following products and applied prior to crop emergence. Ensure that the product used is labeled for application prior to planting or the emergence of soybean. Read and follow label directions for all products in the tank mixture. Apply these tank mixtures in 10 to 20 gallons of water per acre.

Acetochlor	Flufenacet	Metolachlor
Carfentrazone-ethyl	Flumetsulam	S-metolachlor
Chlorimuron ethyl	Flumicloraz pentyl ester	Metribuzin
Clethodim	Flumioxazin	Pendimethalin
Clomazone	Fluthiacet-methyl	Pyroxasulfone
Cloransulam-methyl	Fomesafen	Quizalofop-p-ethyl
Dimethenamid	Imazaquin	Saflufenacil
Dimethenamid-p	Imazethapyr	Sulfentrazone
Fenoxaprop-p-ethyl	Lactofen	Tribenuron methyl
Fluazifop-p-butyl	Linuron	Trifluralin

For hard-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 24 fluid ounces (0.75 lb ae) of this product per acre in a tank mixture with one of the products listed. For other annual weeds listed on this label, apply 18 to 24 fluid ounces (0.56 – 0.75) of this product per acre when weeds are less than 6 inches tall and 24 to 36 fluid ounces (0.75 – 1.13 lb ae) per acre when weeds are over 6 inches tall.

#### Spot Treatment

USE INSTRUCTIONS: This product may be applied as a spot treatment prior to initial pod set in soybean.

RESTRICTIONS: **DO NOT** apply this product to more than 10 percent of the total field area to be harvested.

#### Selective Equipment

USE INSTRUCTIONS: This product may be applied in soybean using a shielded applicator, hooded sprayer, wiper applicator or sponge bar. See additional instructions on the use of selective equipment in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label.

RESTRICTIONS: **Preharvest Interval (PHI):** 7 days after treatment.

#### Preharvest

USE INSTRUCTIONS: This product may be applied to soybean prior to harvest after pods have set and lost all green color. Apply at rates given in the "ANNUAL WEEDS RATE SECTION" and "PERENNIAL WEEDS RATE SECTION" of this label. Take care to avoid excessive seed shatter loss due to ground application equipment.

RESTRICTIONS: **DO NOT** apply more than 3.8 quarts (3.8 lb ae) of this product per acre for preharvest application using ground application equipment or more than 48 fluid ounces (1.5 lb ae) per acre when using aerial application equipment. **Preharvest Interval (PHI):** 7 days after treatment. If the preharvest application rate is greater than 24 fluid ounces (0.75 lb ae) per acre, **DO NOT** graze or harvest hay or fodder within the application area for livestock feed within 25 days of application. If the application rate is 24 fluid ounces (0.75 lb ae) per acre or less, the grazing restriction is reduced to 14 days after application.

#### Sugarcane

TYPES OF APPLICATION: Those listed under "ANNUAL AND PERENNIAL CROPS - TYPES OF APPLICATIONS" section above plus Spot Treatment

#### Preplant, At-Planting, Preemergence

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

RESTRICTIONS: **DO NOT** apply to vegetation in or around 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, apply a 1-percent solution of this product in water using a handheld sprayer and a spray-to-wet technique. Enhanced results can be obtained on volunteer or diseased sugarcane when application is made when there are at least 7 new leaves.

PRECAUTIONS: Avoid contact of this herbicide with healthy sugarcane plants as severe damage or destruction could result.

RESTRICTIONS: **DO NOT** feed or graze sugarcane foliage within the application area.

#### Hooded Sprayer

USE INSTRUCTIONS: This product may be applied using a hooded sprayer for weed control in between rows of sugarcane. See additional instructions on the use of hooded sprayers in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label.

PRECAUTIONS: **DO NOT** allow weeds within the application area to come into contact with the crop.

#### Fallow Treatment

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 by applying 3 to 3.75 quarts (3.0 – 3.75 lb ae) of this product in 10 to 40 gallons of water per acre to new growth having at least 7 new leaves. Allow a minimum of 7 days after application before tillage. Aerial application of up to 72 fluid ounces (2.25) per acre may be made onto fallow sites where there is sufficient buffer to prevent drift onto adjacent crops. Tank mixtures with 2,4-D or dicamba may be used. Ensure that the product used is labeled for this application in sugarcane. Read and follow label directions for all products in the tank mixture.

#### Sugarcane Ripening

USE INSTRUCTIONS: This product may be used as a foliar-applied plant growth regulator to hasten ripening and extend the period of high sucrose level in both low- and high-tonnage sugarcane. Most of the sucrose increase is concentrated in the top nodes of the cane stalk. To maximize sugar recovery where topping is practiced at harvest, top at the base of the fourth leaf. Consult your state sugarcane authority or local INNICTIS CROP CARE representative regarding the degree of sucrose response that can be anticipated prior to application of this product.

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

Apply this product at the following rates and timing according to the State in which the sugarcane is grown. Use a higher application rate within the given range when applying to sugarcane under adverse ripening conditions or to less responsive varieties.

**FLORIDA** – Apply 6 to 14 fluid ounces (0.19 – 0.44 lb ae) of this product per acre 3 to 5 weeks before harvest of LAST RATOON CANE ONLY.

**HAWAII** – Apply 10 to 24 fluid ounces (0.31 – 0.85 lb ae) of this product per acre 4 to 10 weeks before harvest.

**LOUISIANA** – Apply 4 to 14 fluid ounces (0.13 – 0.44 lb ae) of this product per acre 3 to 7 weeks before harvest of RATOON CANE ONLY.

**PUERTO RICO** – Apply 6 fluid ounces (0.19 lb ae) of this product per acre 3 to 5 weeks before harvest of RATOON CANE ONLY.

**TEXAS** – Apply 6 to 14 fluid ounces (0.19 – 0.44 lb ae) of this product per acre 3 to 5 weeks before harvest of RATOON CANE ONLY.

PRECAUTIONS: Application of this product could initiate development of shooting eyes. This product might not increase the sucrose content of sugarcane under conditions of good natural ripening. Within 2 to 3 weeks after application, this product could produce a slight yellowing to a pronounced browning and drying of leaves, and a shortening of upper

internodes. Spindle death could occur. Rainfall within 6 hours after application could reduce the effectiveness of this product. Application to sugarcane grown for seed could result in a reduction in germination or vigor.

**RESTRICTIONS:** **DO NOT** feed or graze sugarcane forage following application. **DO NOT** plant subsequent crops within 30 days after application of this product other than the following: alfalfa or other forage legumes, beans (all types), corn (all types), cotton, melons (all types), pasture grasses, peanuts, potatoes (Irish or sweet), sorghum (milo), soybean, squash (all types) or wheat. **DO NOT** apply for enhanced ripening to any crops other than sugarcane. Use of this product in any manner not consistent with this label could result in injury to persons, animals or crops, or have other unintended consequences.

### Vegetable Crops

This section provides directions for use that apply to all vegetable crops listed in the following sections. See the individual crop sections for specific directions for use, preharvest intervals, precautions and restrictions.

**TYPES OF APPLICATION:** Chemical Fallow; Preplant Fallow Beds; Preplant; At-Planting; Preemergence; Prior to Transplanting Vegetables; Hooded Sprayer in Row Middles; Shielded Sprayer in Row Middles; Wiper Applicator in Row Middles; Directed Application (non-bearing ginseng only); Wiper Applicator (carrot, rutabaga, sweet potato only); Post-Harvest

**PRECAUTIONS:** This product could cause crop injury when applied prior to transplanting or direct-seeding crops into plastic mulch. Remove residual product from the plastic with a single 0.5-inch application of water, either by natural rainfall or by irrigation, prior to planting. Ensure that the wash water flushes off the plastic mulch and does not enter the transplant holes. Application of this product at crop emergence will result in injury or death to emerged seedlings.

Avoid contact of this herbicide with foliage, green shoots or stems, bark, exposed roots (including those emerging from the plastic mulch), or fruit of crops, as severe crop injury or destruction could result. Transplanted seedlings coming into contact with weeds that are still wet with a spray solution of this product could result in significant crop injury.

Preemergence application must be made before the crop emerges from the soil to avoid severe crop injury. Apply before seed germination in coarse sandy soils to further minimize the risk of crop injury. In crops with vines, make hooded sprayer, shielded sprayer and wiper applications in row middles prior to vine development, otherwise severe crop injury or destruction could result.

**RESTRICTIONS:** Unless otherwise directed, application using selective equipment, including wiper applicators and hooded sprayers, must be made a minimum of 14 days prior to harvest. Post-harvest and fallow applications must be made a minimum of 30 days prior to the planting of any crop not listed on this label. See additional use instructions in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label.

### Brassica Vegetables

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

### Bulb Vegetables

**LABELLED CROPS:** All cultivars, varieties and/or hybrids of Chive (including Chinese); Daylily; Elegans hosta; Fritillaria; Garlic (including great-headed, serpent); Kurrat; Leek (including lady's, wild); Onion (including Beltsville bunching, bulb, Chinese, fresh, green, macrostern, pearl, potato, tree, Welsh); Shallot

### Cucurbit Vegetables and Fruits

**LABELLED CROPS:** Chayote (fruit); Chinese waxgourd (Chinese preserving melon); Citron melon; Cucumber; Gherkin; Edible gourd (includes hyotan, cucuzza, hechima, Chinese okra); Melons (all); Momordica spp (includes balsam apple, balsam pear, bittermelon, Chinese cucumber); Muskmelon (includes cantaloupe, casaba, crenshaw melon, golden pershaw melon, honeydew melon, honey ball melon, mango melon, Persian

melon, pineapple melon, Santa Claus melon, snake melon); Pumpkin; Summer squash (includes crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini); Winter squash (includes butternut squash, calabaza, hubbard squash, acorn squash, spaghetti squash); Watermelon

**RESTRICTIONS:** For cantaloupe, casaba melon, crenshaw melon, cucumber, gherkin, gourds, honeydew melon, honey ball melon, mango melon, melons (all), muskmelon, Persian melon, pumpkin, squash (summer, winter), and watermelon, allow a minimum of 3 days between application and planting.

### Leafy Vegetables

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

**RESTRICTIONS:** For watercress, allow a minimum of 3 days between application and seeding. **DO NOT** apply this product during the period between seeding and emergence.

### Fruiting Vegetables

**LABELLED CROPS:** All cultivars, varieties and/or hybrids of Eggplant (including African, pea, scarlet); Cocona; Garden huckleberry; Goji berry; Groundcherry (Physalis spp); Martynia; Naranjilla; Okra; Pepino; Pepper (includes bell pepper, chili pepper, cooking pepper, pimento, sweet pepper); Roselle; Sunberry; Tomatillo; Tomato

**RESTRICTIONS:** Allow a minimum of 3 days between application and planting. For tomato and tomatillo, **DO NOT** apply this product using a hooded or shielded sprayer in row-middles because of the potential for crop injury.

### Legume Vegetables (Succulent or Dried)

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

**TYPES OF APPLICATION:** Those listed under "ANNUAL AND PERENNIAL CROPS - TYPES OF APPLICATIONS" section above plus Spot Treatment (dry varieties only); Preharvest (dry varieties only)

### Spot Treatment (Dry Varieties Only)

**USE INSTRUCTIONS:** This product may be applied as a spot treatment to control troublesome weeds such as Canada thistle, quackgrass, mayweed (dog fennel) and milkweed in any dry legume variety listed in this section, except cowpeas or field (feed) peas. Apply up to 24 fluid ounces (0.75 lb ae) of this product per acre in dry beans, or up to 72 fluid ounces (2.25 lb ae) per acre in dry peas, lentils and chickpeas, in 10 to 20 gallons of water using ground application equipment, or apply a 2-percent solution in a handheld sprayer. For enhanced results, apply at or beyond the bud stage of growth.

**RESTRICTIONS:** Only one spot treatment application may be made per year. **DO NOT** combine spot treatment with a preharvest broadcast application on the same crop area. Allow a minimum of 30 days between application and the planting of any crop not listed in this label. **DO NOT** feed vines and hay from the application area to livestock. **DO NOT** apply this product as a spot treatment in cowpeas or field (feed) peas, since these are considered to be grown only as livestock feed. **Preharvest Interval (PHI):** 7 days after treatment.



### **Preharvest (Dry Varieties Only)**

USE INSTRUCTIONS: This product may be applied over the top of any dry legume variety listed in this section prior to harvest, except cowpeas or field (feed) peas. Apply up to 24 fluid ounces (0.75 lb ae) of this product per acre in dry beans, or up to 72 fluid ounces (2.25 lb ae) per acre in dry peas, lentils, and chickpeas, in 3 to 20 gallons of water per acre at the hard dough stage of the legume seed (30 percent grain moisture or less).

RESTRICTIONS: Only one preharvest application may be made per year. **DO NOT** combine a preharvest application with a spot treatment application on the same crop area. Allow a minimum of 30 days between application and the planting of any crop not listed on this label. **DO NOT** feed vines and hay from the application area to livestock. **DO NOT** make a preharvest application of this product in cowpeas or field (feed) peas, since these are considered to be grown only as livestock feed. **Preharvest Interval (PHI):** 7 days after treatment.

### **Root and Tuber Vegetables**

**LABELLED CROPS:** Arracacha; Arrowroot; Chinese artichoke; Jerusalem artichoke; Beet (garden); Burdock; Canna; Carrot; Cassava (bitter and sweet); Celeriac; Chayote (root); Chervil (turnip-rooted); Chicory; Chufa; Dasheen (taro); Galangal; Ginger; Ginseng; Horseradish; Leren; Kava (turnip-rooted); Parsley (turnip-rooted); Parsnip; Potato; Radish; Oriental radish; Rutabaga; Salsify; Black salsify; Spanish salsify; Skirret; Sweet potato; Tanier; Turmeric; Turnip; Wasabi; Yacon; Yam bean; True yam

**TYPES OF APPLICATION:** Those listed under "ANNUAL AND PERENNIAL CROPS - TYPES OF APPLICATIONS" section above plus Directed Application (non-bearing ginseng only); Wiper applicator (carrot, rutabaga, sweet potato only)

### **Directed Application in Ginseng (Non-Bearing Only)**

USE INSTRUCTIONS: This product may be applied for weed control in established non-bearing ginseng using a boom sprayer, CDA, shielded sprayer, wiper applicator, handheld or backpack wand, lance, or orchard gun. See additional use instructions in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label.

PRECAUTIONS: Control the application so as not to allow any contact of this product with the ginseng plant. Droplets, mist, foam or splatter of the herbicide solution settling onto desirable vegetation could result in discoloration, stunting or destruction.

RESTRICTIONS: Application must be made a minimum of one year prior to ginseng harvest.

### **Wiper Applicator (Carrot, Rutabaga and Sweet Potato Only)**

USE INSTRUCTIONS: A 33-percent solution of this product by volume in water may be applied using a wiper applicator over the top of carrot, rutabaga and sweet potato for the control of tall weeds. See additional use instructions for wiper applicators in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label.

RESTRICTIONS: **Preharvest Interval (PHI):** For carrot, a maximum of two wiper or sponge bar applications may be made a minimum of 60 days prior to harvest following the first application and 7 days prior to harvest following the second application or if only one wiper application is made over the top of the carrot crop. For rutabaga, allow a minimum of 14 days between application and harvest. For sweet potato, a maximum of five wiper or sponge bar applications may be made with a minimum of 14 days between applications and a minimum of 7 days prior to harvest.

### **Miscellaneous Crops**

**LABELLED CROPS:** Aloe vera; Asparagus; Bamboo shoots; Globe artichoke; Okra; Peanut; Pineapple; Sugarbeet

**TYPES OF APPLICATION:** Those listed under "ANNUAL AND PERENNIAL CROPS - TYPES OF APPLICATIONS" section above plus Spot Treatment (asparagus)

For directions for use with Roundup Ready sugarbeet, see the "ROUNDUP READY OR GLYPHOSATE RESISTANT CROPS" section of this label.

PRECAUTIONS: Preemergence application must be made before the crop emerges from the soil to avoid severe crop injury. Apply before seed germination in coarse sandy soils to further minimize the risk of crop injury. In crops with vines, apply this product in row middles using a hooded sprayer, shielded sprayer or wiper applicator prior to vine development, otherwise severe crop injury or destruction could result.

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

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

PRECAUTIONS: This product could cause crop injury when applied prior to transplanting or direct-seeding crops into plastic mulch. Remove residues of this product from the plastic with a single 0.5-inch application of water, either by natural rainfall or by irrigation, prior to planting. Ensure that the wash water flushes off the plastic mulch and does not enter transplant holes.

RESTRICTIONS: Allow a minimum of 21 days between residue removal and transplanting. **DO NOT** apply this product within 7 days prior to emergence of the first asparagus spears. **DO NOT** feed or graze pineapple forage from within the application area.

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

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

RESTRICTIONS: **DO NOT** apply this product to more than 10 percent of the total field area to be harvested. **DO NOT** harvest asparagus within 5 days of a spot treatment application.

### **Post-Harvest in Asparagus**

USE INSTRUCTIONS: This product may be applied for weed control after the last harvest of asparagus and all spears have been removed. If spears are allowed to re-grow, delay application until ferns have developed and make the application as a directed or shielded spray in order to avoid contact of this product with ferns, stems or spears. See additional use instructions in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label.

PRECAUTIONS: Direct contact of this product with asparagus could result in serious crop injury.

### **TREE, VINE AND SHRUB CROPS**

This section provides directions for use that apply to all tree, vine, and shrub crops listed in the following sections. See the individual crop sections for specific directions for use, preharvest intervals, precautions and restrictions.

**TYPES OF APPLICATION:** Preplant (site preparation); Broadcast Spray; Selective Equipment (shielded sprayer, wiper applicator), Directed Spray and Spot Treatment in Middles (between rows of trees, vines or bushes) and Strips (within rows of trees, vines or bushes); Site Weed Control; Perennial Grass Suppression; Cut Stump Application

USE INSTRUCTIONS: Unless specifically prohibited in the individual crop sections that follow, this product may be applied using a boom sprayer, controlled droplet applicator (CDA), shielded sprayer, wiper applicator, handheld or backpack sprayer, lance or orchard gun, in middles (between rows of trees, vines or bushes) and strips (within rows of trees, vines or bushes), for weed control or perennial grass suppression in established tree fruit and nut groves, orchards and vineyards. It may also be used for site preparation prior to planting or transplanting these crops.

Apply 12 fluid ounces to 4 quarts (0.38 – 4.0 lb ae) of this product per acre as directed in the "ANNUAL WEEDS RATE SECTION" and "PERENNIAL WEEDS RATE SECTION" of this label. Use a higher application rate within a given range when weeds are stressed, growing in dense populations or greater than 12 inches tall. Application may be repeated as needed up to a maximum of 8 quarts (8.0 lb ae) of this product per acre per year. See the "PRODUCT INFORMATION" section of this label for more information on Maximum Application Rates.

PRECAUTIONS: Use extreme care to avoid contact of this herbicide solution, spray, drift or mist with foliage or green bark of trunk, branches, suckers, fruit or other parts of desirable trees, canes and vines. Avoid application when recent pruning wounds or other mechanical



injury have occurred. Contact of this product with other than matured brown bark could result in serious crop damage or destruction. Only shielded or directed sprayers may be used in crops where the potential for crop contact is high, and then only where there is sufficient clearance. For application in strips (within rows of trees), only selective equipment (directed spray, hooded sprayer, shielded sprayer, or wiper applicator) may be used in order to minimize the potential for overspray or drift of this product onto the crop. For berry crops, hooded sprayers must be fully enclosed including top, sides, front and back. Only wiper applicators or shielded sprayers capable of preventing all contact of this product with the crop may be used. See additional use instructions and precautions in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label.

**RESTRICTIONS:** 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 rows of tree, vine and shrub crops listed on this label. If weeds are under drought stress, irrigate prior to application. Reduced weed control could result if weeds have been recently mowed at the time of application.

**TANK MIXTURES:** A tank mixture of this product plus Oxyfluorfen may be applied for annual weed control between rows (middles) of a variety of tree, vine and shrub crops when weeds are stressed or growing in dense populations. Application of 12 to 24 fluid ounces (0.38 – 0.75 lb ae) of this product per acre plus an appropriate rate of Oxyfluorfen will control annual weeds with a maximum height or length of 6 inches, including crabgrass, common groundsel, junglerice, common lambsquarters, redroot pigweed, London rocket, common ryegrass, shepherd's-purse, annual sowthistle, filaree (suppression), horseweed/marestail, stinging nettle and common purslane (suppression). This tank-mix will also control common cheeseweed (malva) or hairy fleabane with a maximum height or length of 3 inches.

This product may also be applied to row middles in tank mixtures with the following products

2,4-D	Indaziflam	Pyrflufen ethyl
Bromacil	Napropamide	Rimsulfuron
Clethodim	Norflurazon	Saflufenacil
Diuron	Oryzalin	Sethoxydim
Fluazifop-p-butyl	Oxyfluorfen	Simazine
Flumioxazin	Pendimethalin	Thiazopyr
Glufosinate-ammonium	Penoxsulam	

Ensure that the product used is labeled for application within the crop being grown. Read and follow label directions for all products in the tank mixture.

#### Strips (within rows)

**TANK MIXTURES:** This product may be applied within rows of tree, vine and shrub crops in tank mixtures with the following products.

2,4-D	Indaziflam	Pyrflufen ethyl
Bromacil	Napropamide	Rimsulfuron
Clethodim	Norflurazon	Saflufenacil
Diuron	Oryzalin	Sethoxydim
Fluazifop-P-butyl	Oxyfluorfen	Simazine
Flumioxazin	Pendimethalin	Thiazopyr
Glufosinate-ammonium	Penoxsulam	

Ensure that the product used is labeled for application within the crop being grown. Read and follow label directions for all products in the tank mixture.

**RESTRICTIONS:** **DO NOT** apply these tank mixtures in Puerto Rico.

#### 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, vine and shrub crops.

For suppression of tall fescue, fine fescue, orchardgrass and quackgrass, apply 6 fluid ounces (0.19 lb ae) of this product in 10 to 20 gallons of water per acre.

For suppression of Kentucky bluegrass covers, apply 4.5 fluid ounces (0.14 lb ae) of this product per acre. **DO NOT** add ammonium sulfate to the spray mix.

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

For suppression of vegetative growth and seedhead inhibition of bahiagrass for approximately 45 days, apply 4.5 fluid ounces (0.14 lb ae) of this product in 10 to 25 gallons of water per acre 1 to 2 weeks after full green-up or after mowing to a uniform height of 3 to 4 inches prior to seedhead emergence. For suppression for up to 120 days, apply 3 fluid ounces (0.09 lb ae) of this product per acre, followed by an application of 1.5 to 3 fluid ounces (0.05 – 0.09 lb ae) per acre about 45 days later. Make no more than two applications per year.

For burndown of bermudagrass, apply 24 to 48 fluid ounces (0.75 – 1.50 lb ae) of this product in 3 to 20 gallons of water per acre. Make this application only if reduction of the bermudagrass stand can be tolerated. When burndown is needed prior to harvest, make the application a minimum of 21 days prior to harvest to allow sufficient time for burndown to occur.

For suppression of bermudagrass, apply 4.5 to 12 fluid ounces (0.14 – 0.38 lb ae) of this product per acre east of the Rocky Mountains and 12 fluid ounces (0.38 lb ae) west of the Rocky Mountains in a total spray volume of 3 to 20 gallons per acre no sooner than 1 to 2 weeks after full green-up. If the bermudagrass is mowed prior to application, maintain a minimum of 3 inches in height. Sequential applications may be made when re-growth occurs and bermudagrass injury and stand reduction can be tolerated. East of the Rocky Mountains, apply 4.5 to 8 fluid ounces (0.14 – 0.25 lb ae) of this product per acre in shaded conditions or where a lesser degree of suppression is desired.

#### Cut Stump Application

Application of this product to a freshly cut tree stump may be made during site preparation or site renovation to control re-growth and re-sprouting of stumps of many tree species, some of which are listed below.

**Citrus Trees:** Calamondin; Chironja; Citron; Citrus hybrids; Grapefruit; Kumquat; Lemon; Lime; Mandarin (tangerine); Orange (all); Pummelo; Tangelo (ugli); Tango

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

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

**USE INSTRUCTIONS:** Cut the tree close to the soil surface and immediately apply a 50- to 100-percent (undiluted) solution of this product to the freshly cut surface using application equipment capable of covering the entire cambium. A delay in application could result in reduced performance. For enhanced results, cut the tree during period of active growth and full leaf expansion and apply this product.

**PRECAUTIONS:** Injury resulting from root grafting may occur in adjacent trees. Some sprouts, stems or trees can share a common root system. Adjacent trees having a similar age, height and spacing could be an indicator of a shared root system. Whether grafted or shared, injury is likely to occur to adjacent stems or trees when this product is applied to one or more trees sharing a common root system.

**RESTRICTION: DO NOT** make a cut stump application when the roots of adjacent desirable trees might be grafted to the roots of the cut stump.

#### Berry and Small Fruit Crops

**LABELED CROPS:** All cultivars, varieties and/or hybrids of Amur River grape; Aronia berry; Bayberry; Bearberry; Bilberry; Blackberry (including Andean blackberry, arctic blackberry, bingleberry, black satin berry, boysenberry, brombeere, California blackberry, Cherokee blackberry, chesterberry, Cheyenne blackberry, common blackberry, coryberry, darrowberry,

dewberry, Dirksen thornless berry, evergreen blackberry, Himalayaberry, hullberry, lavacaberry, loganberry, lowberry, Lucretiaberry, mammoth blackberry, marionberry, mora, mures de ronce, nectarberry, Northern dewberry, olallieberry, Oregon evergreen berry, phenomenalberry, rangeberry, ravenberry, rossberry, Shawnee blackberry, Southern dewberry, tayberry, youngberry, zarzamora); Blueberry (highbush, lowbush); Buffaloberry; Che; Chilean guava; Chokecherry; Cloudberry; Cranberry (including highbush); Currant (black, Buffalo, red, native); Elderberry; European barberry; Gooseberry; Grape; Honeysuckle (edible); Huckleberry; Jostaberry; Juneberry (Saskatoon berry); Kiwifruit (fuzzy, hardy); Ligonberry; Maypop; Mountain pepper berries; Mulberry; Muntries; Partridgeberry; Phalsa; Pincherry; Raspberry (black, red, wild); Riberry; Saial; Schisandra berry; Sea buckthorn; Serviceberry; Strawberry

**TYPES OF APPLICATION:** Those listed under "TREE, VINE AND SHRUB CROPS - TYPES OF APPLICATIONS" section above.

**PRECAUTIONS:** To avoid damage, spray solutions of this product must not be allowed to contact desirable vegetation, including green shoots, canes or foliage. In the northeast and Great Lakes regions, apply this product in grape vineyards prior to the end of the bloom stage in order to avoid crop injury, or apply using a shielded sprayer or wiper applicator. Use this product with extreme care around raspberry, as serious crop damage can occur if any part of the vine comes into contact with this product.

**RESTRICTIONS:** Allow a minimum of 3 days between application of this product and transplanting. Allow 30 days between application of this product and planting of any crop not listed on this label. **DO NOT** apply this product using selective equipment in kiwifruit.

**Preharvest Interval (PHI):** Cranberries: 30 days after treatment. **For all other berry and small fruit:** 14 days after treatment.

#### Spot Treatment

**USE INSTRUCTIONS:** Spot treatment application using a handheld sprayer or other appropriate application equipment listed in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label may be used to control weeds in berry and small fruit crops listed in this section.

For control of weeds growing in dry ditches (interior and perimeter) of cranberry production areas, drop water level to remove standing water in ditches and apply a 1- to 2-percent solution of this product with a handheld sprayer to adequately wet the vegetation only; **DO NOT** spray to the point of runoff. To achieve maximum weed control in dry ditches, apply this product within 1 day after water drawdown to ensure application to actively growing weeds and allow a minimum of 2 days after application before reintroduction of water.

**RESTRICTIONS:** **DO NOT** apply directly to water. Use nozzles that produce medium- to large-sized droplets to minimize spray drift and avoid crop injury. **Preharvest Interval (PHI):** 30 days after spot treatment of cranberries.

#### Post-Harvest Application in Cranberry Production

**USE INSTRUCTIONS:** This product may be applied for weed control after the harvest of berries and small fruits listed in this section. In cranberry bogs, apply this product after cranberry vines are dormant (after they have turned red) using a handheld sprayer, wiper applicator, or any other appropriate application equipment listed in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label. With a handheld sprayer, apply a 0.5 to 0.8-percent solution of this product to adequately wet the vegetation only; **DO NOT** spray to the point of runoff. With a handheld boom sprayer, apply 1.5 to 3.0 quarts (1.5 – 3.0 lb ae) of this product per acre.

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

**RESTRICTIONS:** Apply this product only after cranberries have been harvested. **DO NOT** apply to more than 10 percent of the total bog. **DO NOT** apply using aerial application equipment. **DO NOT** apply directly to water. **Preharvest Interval (PHI):** 6 months after post-harvest treatment and the next cranberry harvest.

#### Citrus Fruit Crops

**LABELED CROPS:** All cultivars, varieties and/or hybrids of Calamondin; Chironja; Citron; Citrus Hybrids; Grapefruit (including Japanese summer); Kumquat; Lemon; Lime (including Australian desert lime, Australian finger lime, Australian round lime, Brown river finger lime, Mount white, New Guinea wild, Russell river, sweet, and Tahiti); Mandarin (including Mediterranean, Satsuma); Orange (all); Pummelo; Tangelo; Tangerine (Mandarin); Tangor; Uniq Fruit (ugli)

**TYPES OF APPLICATION:** Preplant (site preparation); Broadcast Spray, Selective Equipment (shielded sprayer, wiper applicator), Directed Spray or Spot Treatment in Middles (between rows of trees) or Strips (within rows of trees); Perennial Grass Suppression; Cut Stump Application

**USE INSTRUCTIONS:** The following use instructions pertain to application in Florida and Texas only.

For burndown or control of the weeds listed below, apply this product at the specified rate in 3 to 30 gallons of water per acre. Where weed foliage is dense, use 10 to 30 gallons of water per acre.

To control goatweed, apply 48 to 72 fluid ounces (1.50 – 2.25 lb ae) of this product in 20 to 30 gallons of water per acre when plants are actively growing. Apply 48 fluid ounces (1.50 lb ae) per acre when plants are less than 8 inches tall and 72 fluid ounces (2.25 lb ae) per acre when plants are greater than 8 inches tall. If goatweed is greater than 8 inches tall, the use of this product in a tank mixture with Bromacil or Diuron could improve weed control. Refer to the individual product labels for specific crops, rates, geographic restrictions and precautionary statements.

Weed Species	Level of Perennial Weed Control at Various Application Rates (amount of this product per acre)			
	24 fl oz	48 fl oz	2.3 quarts	3.8 quarts
Bermudagrass	B	--	PC	C
Guinea grass				
<i>Texas and Florida Ridge</i>	B	C	C	C
<i>Florida Flatwoods</i>	--	B	C	C
Para grass	B	C	C	C
Torpedograss	S	--	PC	C
S = Suppression, PC = Partial Control, B = Burndown, C = Control				

**RESTRICTIONS:** For citron groves, apply as directed spray only. **Preharvest Interval (PHI):** 1 day after treatment in citrus fruit crops.

#### Pome Fruit Crops

**LABELED CROPS:** All cultivars, varieties and/or hybrids of Apple; Azarole; Crabapple; Loquat; Mayhaw; Medlar; Pear (including Asian pear); Quince (including Chinese and Japanese quince); Tejocote

**TYPES OF APPLICATION:** Those listed under "TREE, VINE AND SHRUB CROPS - TYPES OF APPLICATIONS" section above

**RESTRICTIONS:** **Preharvest Interval (PHI):** 1 day after treatment of pome fruit.

#### Stone Fruit Crops

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

**TYPES OF APPLICATION:** Those listed under "TREE, VINE AND SHRUB CROPS - TYPES OF APPLICATIONS" section above.

**PRECAUTIONS:** Avoid application near trees with recent pruning wounds or other mechanical injury. Apply only near trees that have been planted in the orchard for a minimum of 2 years. Ensure that no part of a peach tree is contacted with overspray or drift of this product.

RESTRICTIONS: In olive groves, apply as a directed spray only. Remove suckers and low-hanging limbs a minimum of 10 days prior to application. **Preharvest Interval (PHI):** 17 days after treatment of stone fruit.

#### **TREE NUT CROPS**

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

TYPES OF APPLICATION: Those listed under "TREE, VINE AND SHRUB CROPS - TYPES OF APPLICATIONS" section above.

RESTRICTIONS: **Preharvest Interval (PHI):** 3 days after treatment of tree nuts, except coconut and 14 days after treatment of coconut.

#### **Tropical and Subtropical Trees and Fruit Crops**

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

TYPES OF APPLICATION: Those listed under "TREE, VINE AND SHRUB CROPS - TYPES OF APPLICATIONS" section above and as a Bananacide (banana only).

RESTRICTIONS: In coffee and banana, delay application a minimum of 3 months after transplanting to allow the new coffee or banana plant to become established. **Preharvest Interval (PHI):** 1 day after treatment of banana, coffee, guava, papaya, and plantain crops and 14 days after treatment of all other listed tropical and subtropical tree fruit.

#### **Bananacide (Banana Only)**

USE INSTRUCTIONS: This product may be used to destroy banana plants infected with the Banana Bunchy Top Virus, as well as non-infected banana plants, in order to establish a disease-free buffer around a plantation. Remove all fruit from the plants within the area prior to treatment. Inject 0.04 fluid ounce (1 milliliter) (0.001 lb ae) of this concentrated product (undiluted) for every 2 to 3 inches of pseudostem diameter of the banana plant to be controlled. Make the injection at least one foot above the ground, except for very small plants, which can be injected vertically into the top. Any subsequent re-growth must also be destroyed. Mechanically destroy all plants and mats (or units) within a 4-foot radius around a treated mat.

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

RESTRICTIONS: **DO NOT** apply more than 0.6 fluid ounce (17 milliliters) (0.019 lb ae) of this product per mat (or unit). **DO NOT** harvest any fruit or plant material from treated mats (or units) following injection. **DO NOT** allow livestock to consume treated plant material. Following transplant of new banana plants into treated areas, allow plants to become established for a minimum of 3 months before applying this product for weed control.

#### **Vine Crops**

LABELLED CROPS: Hops; Passion fruit

TYPES OF APPLICATION: Those listed under "TREE, VINE AND SHRUB CROPS - TYPES OF APPLICATIONS" section above.

USE INSTRUCTIONS: Apply this product for weed control only when green shoots, canes or foliage are not in the spray zone.

RESTRICTIONS: **Preharvest Interval (PHI):** 14 days after treatment.

#### **Miscellaneous Tree Food Crops**

LABELLED CROPS: Cactus (all, including prickly pear and dragon fruit); Palm

TYPES OF APPLICATION: Those listed under "TREE, VINE AND SHRUB CROPS - TYPES OF APPLICATIONS" section above.

#### **Non-Food Tree Crops**

LABELLED CROPS: Pine; Poplar; Eucalyptus; Christmas trees; all other non-food tree crops

TYPES OF APPLICATION: Those listed under "TREE, VINE AND SHRUB CROPS - TYPES OF APPLICATIONS" section above.

PRECAUTIONS: Avoid contact of spray, drift or mist of this product with foliage or green bark of established Christmas trees and other pine trees. Desirable plants can be protected from the spray solution by using shields or coverings of impermeable materials.

RESTRICTIONS: **DO NOT** apply this product as a broadcast application over the top of plantations or tree crops.

#### **Site Preparation**

USE INSTRUCTIONS: This product may be used for weed control prior to planting non-food tree crops.

PRECAUTIONS: Protect non-target plants from being sprayed with this product during site preparation application.

#### **Directed Spray, Spot Treatment, Wiper Applicator**

USE INSTRUCTIONS: This product may be applied as a post-directed spray or spot treatment, or applied using a wiper applicator, around established Christmas trees, eucalyptus, poplar, and all other non-food tree crops.

#### **PASTURE GRASSES, FORAGE LEGUMES AND RANGELAND**

USE INSTRUCTIONS: Refer to the "ANNUAL WEEDS RATE SECTION" and "PERENNIAL WEEDS RATE SECTION" of this label for application rates of this product for specific weeds. When applied as directed, this product will control those annual and perennial grasses and broadleaf weeds listed. Application rates specified on this label for hard-to-control weeds, or those specified on separate supplemental labeling for this product, supersede rates listed in the "ANNUAL WEEDS RATE SECTION," "PERENNIAL WEEDS RATE SECTION" and "WOODY BRUSH, TREES AND VINES RATE SECTION" of this label. Additional information on hard-to-control weeds can be found on Fact Sheets published for this product.

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

LABELLED CROPS: Alfalfa; Clover; Kenaf; Kudzu; Lespedeza; Leucaena; Lupin; Sainfoin; Trefoil; Velvet bean; Vetch (all types)

TYPES OF APPLICATION: Preplant; At-Planting; Preemergence; Spot Treatment; Wiper Applicator; Preharvest (except kenaf and leucaena); Stand Removal

For directions for use with Roundup Ready alfalfa, see the "ROUNDUP READY OR GLYPHOSATE RESISTANT CROPS" section of this label.

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

USE INSTRUCTIONS: This product may be applied before, during or after planting crops listed in this section, but prior to crop emergence.

RESTRICTIONS: Remove domestic livestock before application.

#### **Spot Treatment, Wiper Applicator**

USE INSTRUCTIONS: This product may be applied as a spot treatment or over the top of crops listed in this section using a wiper applicator. See additional instructions on the use of wiper applicators in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label. Application may be repeated in the same area at 30-day intervals.

**RESTRICTIONS:** For spot treatment and use with a wiper applicator, apply in areas where the movement of domestic livestock can be controlled. Remove domestic livestock before application and wait a minimum of 3 days after application before grazing livestock or harvesting. **DO NOT** apply this product to more than 10 percent of the total field area at any one time.

#### **Weed Control in Dormant Alfalfa**

**USE INSTRUCTIONS:** This product will control or suppress many weeds, including quackgrass, downy brome and cheatgrass in dormant alfalfa. Apply 7 to 9 fluid ounces (0.22 – 0.28 lb ae) of this product per acre in the spring when alfalfa is dormant, after spring temperatures have warmed enough to encourage weed growth, but prior to initiation of trifoliate leaf expansion of the alfalfa crop. Application made after expansion of the first trifoliate leaf will cause growth reduction and reduced crop yield.

**PRECAUTIONS:** Improper application of this product to alfalfa can cause crop injury. **DO NOT** use this product on dormant alfalfa if a slight yield reduction in the first cutting cannot be tolerated. Slight discoloration of the alfalfa crop could occur, but will re-green and resume growth under moist soil conditions as effects of this product wear off.

**RESTRICTIONS:** **DO NOT** add ammonium sulfate to spray solutions of this product for application to dormant alfalfa. **DO NOT** make more than one application per year. **Preharvest Interval (PHI):** 36 hours after treatment for harvest or grazing livestock.

#### **Preharvest (Except Kenaf and Leucaena), Stand Removal**

**USE INSTRUCTIONS:** This product may be applied as a broadcast application prior to harvest (except in kenaf and leucaena) in declining stands or in any stand where severe crop injury or destruction is acceptable, or to remove an established stand of any forage legumes listed in this section. Application may be made at any time of the year to control annual and perennial weeds, including quackgrass. For control of quackgrass, apply in the spring, late-summer or fall when quackgrass is actively growing. Application for quackgrass control must be followed by deep tillage for complete control. If the crop is to be harvested or grazed by livestock, up to 48 fluid ounces (1.50 lb ae) of this product per acre may be applied in alfalfa and up to 36 fluid ounces (1.13 lb ae) per acre in all other legumes listed in this section. For complete removal of established stands of clover, it might be necessary to use a higher application rate, as listed in the "PERENNIAL WEEDS RATE SECTION" of this label.

**PRECAUTIONS:** This application can destroy an alfalfa stand and severely injure or destroy other legume crops listed, such as clover. Preharvest application on alfalfa grown for seed could result in a reduction in germination or vigor.

**RESTRICTIONS:** Make only one application to an existing crop stand per year. Remove domestic livestock before application. Foliage within the application area can be harvested and fed to livestock according to the application rates and intervals defined in the following table. If applying at a rate greater than those listed here, **DO NOT** harvest foliage for livestock feed or allow livestock to graze within the application area.

Crop	Maximum Single Preharvest Application Rate (per acre)	Minimum Interval Between Application and Harvest or Livestock Grazing
Alfalfa	48 fluid ounces (1.50 lb ae)	36 hours
All other legumes listed	36 fluid ounces (1.13 lb ae)	3 days

Crops listed on this label may be planted into the application area at any time; all other crops may be planted 30 days after application.

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

**TYPES OF APPLICATION:** Postemergence Weed Control in Dormant CRP Grasses; Wiper Applicator; Renovation (rotating out of CRP); Site Preparation

#### **Postemergence Weed Control in Dormant CRP Grasses, Wiper Applicator**

**USE INSTRUCTIONS:** Apply this product to suppress competitive growth and seed production of undesirable vegetation on CRP land. Application may be made using a wiper applicator to control tall weeds, or as a broadcast application or spot treatment to dormant CRP grasses.

For selective weed control using broadcast application equipment, apply 6 to 9 fluid ounces (0.19 – 0.28 lb ae) of this product per acre in early-spring before desirable CRP grasses, such as crested and tall wheatgrass, break dormancy and initiate green growth. Late-fall application may be made after desirable perennial grasses have reached dormancy.

**PRECAUTIONS:** Some stunting of CRP perennial grasses will occur if broadcast application is made when plants are not dormant.

**RESTRICTIONS:** **DO NOT** apply more than 2.3 quarts (2.3 lb ae) of this product per acre per year onto CRP land. No waiting period is required between application and grazing or harvesting for feed.

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

**USE INSTRUCTIONS:** This product may be used to prepare CRP land for crop production. Refer to Federal, State or local use guides for CRP renovation information.

**RESTRICTIONS:** Crops listed on this label may be planted into the area at any time; all other crops may be planted 30 days after application.

#### **Grass Seed and Sod Production**

**LABELLED CROPS:** Any grass (*Gramineae* family) except Corn, Sorghum, Sugarcane and those listed in the "CEREAL AND GRAIN CROPS" section of this label

**TYPES OF APPLICATION:** Preplant; At-Planting; Preemergence; Renovation; Removal of Established Stands; Site Preparation; Shielded Sprayer; Wiper Applicator; Spot Treatment; Creating Rows in Annual Ryegrass

#### **Preplant, At-Planting, Preemergence, Renovation, Removal of Established Stand, Site Preparation**

**USE INSTRUCTIONS:** This product controls most existing vegetation for purposes of renovating turf or forage grass seed production areas, or for establishing turfgrass grown for sod. This product may be used to destroy undesirable grass vegetation when production fields are converted to alternate species or crops. **DO NOT** disturb soil or underground plant parts before application and delay tillage or renovation techniques, including vertical mowing, coring and slicing, for a minimum of 7 days after application to allow for herbicide translocation into underground plant parts.

Apply before, during, or after planting, or for renovation purposes. 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 herbicide spray. For maximum control of existing vegetation, delay planting until determining if any re-growth of underground plant parts will occur. Where repeat applications are necessary, sufficient re-growth must be attained prior to application. For warm-season grasses, such as bermudagrass, summer or fall application provides enhanced control. Broadcast application of this product may be used to control sod remnants or other unwanted vegetation after sod is harvested. Application rates of up to 3.75 quarts (3.75 lb ae) per acre may be used to totally remove an established stand of hard-to-kill grass species.

**RESTRICTIONS:** If application rate is 2.25 quarts (2.25 lb ae) of this product per acre or less, no waiting period between application and feeding or livestock grazing is required. If the rate is greater than 2.25 quarts (2.25 lb ae) per acre, remove domestic livestock before application and wait 8 weeks after application before grazing or harvesting. Crops listed on this label may be planted into the area at any time; all other crops may be planted 30 days after application.

#### **Shielded Sprayer**

**USE INSTRUCTIONS:** Apply 24 to 72 fluid ounces (0.75 – 2.25 lb ae) of this product in 10 to 20 gallons of water per acre using a shielded sprayer to control weeds between grass seed rows. Uniform planting in straight rows will aid shielded sprayer application. Enhanced results can be obtained when the grass seed crop is small enough to easily pass by the protective shields. See additional instructions on the use of shielded sprayers in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label.

**PRECAUTIONS:** Any contact of this product on any vegetation to which application is not intended could cause damage.

## Wiper Applicator

USE INSTRUCTIONS: This product may be applied over the top of desirable grasses using a wiper applicator for the control of tall weeds. See additional instructions on the use of wiper applicators in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label.

PRECAUTIONS: Droplets, mist, foam or splatter of the herbicide solution settling onto desirable vegetation could result in discoloration, stunting or destruction.

## Spot Treatment

USE INSTRUCTIONS: Apply a 1-percent solution of this product using a handheld sprayer to control weeds within established vegetation prior to heading of grasses grown for seed or to control sod remnants or other unwanted vegetation after sod is harvested.

PRECAUTIONS: This product will kill the desirable grasses along with the weeds. Take care not to spray or allow spray to drift outside the target area in order to avoid unwanted crop destruction.

## Creating Rows in Annual Ryegrass

USE INSTRUCTIONS: Use low-pressure nozzles or drop nozzles designed to target the application over a narrow band. Set nozzle height to establish the desired row spacing and apply 12 to 24 fluid ounces (0.38 – 0.75 lb ae) of this product per acre. Enhanced results can be obtained when application is made before ryegrass reaches 6 inches in height. Use a higher application rate within this range when ryegrass is greater than 6 inches in height.

PRECAUTIONS: Take care not to spray or allow spray to drift outside target area in order to avoid unwanted crop destruction.

## Pastures

LABELLED CROPS: Bahiagrass; Bermudagrass; Bluegrass; Brome; Fescue; Guinea grass; Kikuyu grass; Orchardgrass; Pangola grass; Ryegrass; Timothy; Wheatgrass and any grass (Guineafae family) except Corn, Sorghum, Sugarcane and those listed in the "CEREAL AND GRAIN CROPS" section of this label.

TYPES OF APPLICATION: Preplant; Preemergence; Pasture Renovation; Spot Treatment; Wiper Applicator; Postemergence Weed Control (broadcast application)

## Preplant, Preemergence, Pasture Renovation

USE INSTRUCTIONS: This product may be applied for weed control prior to planting or emergence of forage grasses. This product may also be applied to control perennial pasture species listed on this label prior to re-planting.

RESTRICTIONS: If application rates total 2.3 quarts (2.3 lb ae) of this product per acre or less, no waiting period between application and feeding or livestock grazing is required. If the rate is greater than 2.3 quarts (2.3 lb ae) per acre, remove domestic livestock before application and wait 8 weeks after application before grazing or harvesting. Crops listed on this label may be planted into the area at any time; all other crops may be planted 30 days after application.

## Spot Treatment, Wiper Applicator

USE INSTRUCTIONS: This product may be applied in pastures as a spot treatment or over the top of desirable grasses using a wiper applicator to control tall weeds. To achieve maximum performance, remove domestic livestock before application and wait a minimum of 7 days after application before grazing livestock or harvesting for feed. See additional instructions on the use of wiper applicators in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label.

RESTRICTIONS: For spot treatment or use with a wiper applicator at rates of 2.25 quarts (2.25 lb ae) per acre or less, this product may be applied over the entire pasture or any portion of it. At rates above 2.25 quarts (2.25 lb ae) per acre, this product may be applied over no more than 10 percent of the total pasture at any one time. Application may be repeated in the same area at 30-day intervals.

## Postemergence Weed Control (Broadcast Application)

USE INSTRUCTIONS: This product may be applied to pastures to suppress competitive growth and seed production of annual weeds and other undesirable vegetation. For selective

weed control using broadcast application equipment, apply 9 to 12 fluid ounces (0.28 – 0.38 lb ae) of this product per acre in early-spring before desirable perennial grasses break dormancy and initiate green growth. Late-fall application may be made after desirable perennial grasses have reached dormancy.

PRECAUTIONS: Some stunting of perennial grasses will occur if broadcast application is made when plants are not dormant. Higher application rates may be used for hard-to-control weeds; however, higher rates will cause stand reduction.

RESTRICTIONS: No waiting period is required between application and grazing or harvesting for feed. **DO NOT** apply more than 2.3 quarts (2.3 lb ae) of this product per acre per year onto pasture grasses except for renovation use as described on this label. If replanting is needed due to severe stand reduction, wait a minimum of 30 days after application before planting any crop not listed on this label.

## Rangeland

TYPES OF APPLICATION: Postemergence

USE INSTRUCTIONS: This product will control or suppress many annual weeds growing in perennial cool- and warm-season grass rangeland. Slight discoloration of the desirable grasses could occur, but will re-green and resume growing under moist soil conditions as effects of this product wear off.

Preventing seed production is critical to the control of invasive annual grassy weeds on rangeland. Yearly application of this product can be used to eliminate viable weed seeds in the soil after they germinate. Delay grazing of the area after application to allow desirable perennials to grow, flower and re-seed the area.

Apply 9 to 12 fluid ounces (0.28 – 0.38 lb ae) of this product per acre to control or suppress many weeds, including downy brome, cheatgrass, cereal rye and jointed goatgrass on rangeland. Apply when most mature brome plants are in early-flower and before the plants, including seedheads, turn color. Allowing for secondary weed flushes to occur after spring rains further depletes the seed reserve and encourages perennial grass conversion on weedy sites. Apply this product in the fall in areas where spring moisture is normally limited and fall germination allows for good weed growth and weed seed depletion.

For control of medusahead, apply 12 fluid ounces (0.38 lb ae) of this product per acre at the 3-leaf stage. Delaying application beyond this stage will result in reduced or unacceptable control. Controlled burning prior to application can be useful in eliminating the thatch layer produced by slow decaying culms. Allow new growth to occur before applying this product after a burn. Yearly application of this product is necessary to eliminate the seedbank and allow desirable perennial grasses to re-establish in medusahead-dominated rangeland.

RESTRICTIONS: **DO NOT** apply more than 2.25 quarts (2.25 lb ae) of this product per acre per year on rangeland. **DO NOT** add ammonium sulfate to the spray mixture when applying this product on rangeland grasses. No waiting period between application and feeding or livestock grazing is required.

## ROUNDUP READY or GLYPHOSATE RESISTANT CROPS

Roundup Ready or glyphosate resistant crops contain a patented gene that provides resistance to glyphosate, the active ingredient in this product. This product will cause severe crop injury or destruction and yield loss if applied to crops that are not glyphosate tolerant. Avoid contact of this product with foliage, green stems, or fruit of crops or any desirable plants that **DO NOT** contain a glyphosate-tolerance gene, as severe plant injury or destruction will result. Information on Roundup Ready or glyphosate resistant crops can be obtained from your seed supplier or INNVICTIS CROP CARE representative. Roundup Ready or glyphosate resistant crops must be purchased from an authorized licensed seed supplier.

The directions for use in the sections that follow, or those published separately on supplemental labeling for this product, include all applications of this product that may be made onto a specified Roundup Ready or glyphosate resistant crop during the complete cropping season. **DO NOT** combine these directions for use with the directions for use with the same crops listed in the "ANNUAL AND PERENNIAL CROPS" and "PASTURE GRASSES, FORAGE LEGUMES AND RANGELAND" sections of this label, which are intended for crops that **DO NOT** contain a glyphosate-tolerance gene.

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

**USE INSTRUCTIONS:** Refer to the "ANNUAL WEEDS RATE SECTION" and "PERENNIAL WEEDS RATE SECTION" of this label for application rates for specific weeds. When applied as directed, this product will control the annual and perennial grasses and broadleaf weeds listed. Observe the maximum application rates and crop stage timings specified for individual Roundup Ready or glyphosate resistant crops in the sections that follow.

**Sprayer Preparation:** It is important that sprayer and mixing equipment be clean and free of pesticide residue before being used to apply this product over the top of Roundup Ready or glyphosate resistant crops. Follow the cleaning procedures specified on the label of the product(s) previously used. Thoroughly clean the spray tank and all lines and filters to eliminate potential contamination from other herbicides prior to mixing and applying this product.

**Attention:** Avoid drift. Use extreme care when applying this product to prevent injury to desirable plants and crops that **DO NOT** contain a glyphosate-tolerance gene.

**Ground broadcast application** – Apply this product in 5 to 20 gallons of spray solution per acre, unless otherwise directed. Select proper nozzles and spray pressure settings to avoid generating a fine mist. For enhanced results with ground application equipment, use flat-fan nozzles. Check for even distribution of spray droplets.

**Aerial application** – Unless otherwise prohibited, all applications of this product described in this section may be made using aerial application equipment, where appropriate, provided that the applicator complies with the precautions and restrictions specified on this label and on all supplemental labeling published separately for this product. Apply this product in 3 to 15 gallons of water per acre. See the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for important information on aerial application and procedures for avoiding spray drift that could cause injury to any vegetation not intended for application. Use of appropriate buffer zones will help prevent injury to adjacent vegetation.

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:** Tank mixtures of this product with other herbicides, insecticides, fungicides, micronutrients or foliar fertilizers could result in reduced weed control or crop injury when applied over the top of Roundup Ready or glyphosate resistant crops. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Always predetermine the compatibility of tank-mix products together in the carrier by mixing small proportional quantities in advance. INNVICTIS CROP CARE has not tested this product with all tank-mix product formulations for compatibility, antagonism or performance. See the "MIXING" section of this label for more information on tank mixtures.

Unless otherwise directed, nonionic surfactant may be added to the spray solution for application to Roundup Ready or glyphosate resistant crops. The addition of certain surfactants to a spray solution of this product could result in some crop response including leaf speckling or leaf necrosis due to the surfactant. Refer to the individual Roundup Ready or glyphosate resistant crop sections that follow, or to separate supplemental labeling, for additional precautions or restrictions on the use of surfactants. Refer to the "MIXING" section of this label for additional information on the use of surfactants with this product.

Ammonium sulfate may be added to spray solutions of this product for application to Roundup Ready or glyphosate resistant crops. Refer to the "MIXING" section of this label for instructions on the use of ammonium sulfate.

The following use directions are based on a clean start at planting by using a burndown application or tillage to control existing weeds before crop emergence. In no-till and stale seedbed systems, apply this product as a preplant burndown application to control existing weeds prior to crop emergence. Some weeds, such as black nightshade, broadleaf signalgrass, sicklepod, Texas panicum, sandbur, annual morning glory, woolly cupgrass, shattercane, wild proso millet, burcucumber, and giant ragweed with multiple germination times, or suppressed (stunted) weeds, might need a second application of this product for complete control. Make second application after some re-growth has occurred and a minimum of 10 days after a previous application of this product.

Application rates of this product specified on this label for hard-to-control weeds, or those specified on separate supplemental labeling for this product, supersede rates in the "ANNUAL WEEDS RATE SECTION" and "PERENNIAL WEEDS RATE SECTION" of this label. Additional information on hard-to-control weeds can be found on Fact Sheets published for this product.

**RESTRICTIONS:** Observe the maximum application rates stated throughout this label. Maximum application rates apply to the use of this product combined with the use of any and all other herbicides containing glyphosate, whether applied separately or as mixtures. Calculate the application rates (glyphosate acid equivalents) and ensure that the total use of this and other glyphosate-containing products does not exceed the stated maximum rate. See the "PRODUCT INFORMATION" section of this label for more information on Maximum Application Rates.

### Roundup Ready or Glyphosate Resistant Alfalfa

TYPES OF APPLICATION: Preplant; At-planting; Preemergence; Postemergence (In-crop)

**USE INSTRUCTIONS:** Refer to the following table for the maximum application rates of this product.

Maximum Application Rates Per Acre	
Combined total per year for all applications, including Preplant during year of establishment	6 quarts 6.0 lb ae)
Preplant, At-planting and Preemergence single application	1.5 quarts (1.5 lb ae)
Combined total per year for In-crop applications on newly established and established stands	4.5 quarts (4.5 lb ae)

See the "ROUNDUP READY OR GLYPHOSATE RESISTANT CROPS" section of this label for information regarding the use of this product in Roundup Ready or glyphosate resistant crops. See the "PRODUCT INFORMATION" section of this label for more information on Maximum Application Rates.

### Preplant, At-Planting, Preemergence

**USE INSTRUCTIONS:** This product may be applied before, during or after planting Roundup Ready or glyphosate resistant alfalfa.

### Postemergence (In-crop)

**USE INSTRUCTIONS:** This product may be applied over the top of Roundup Ready or glyphosate resistant alfalfa (in-crop) from emergence until 5 days prior to cutting. To maximize crop yield and quality potential of the forage and hay, apply this product after weeds have emerged, but before alfalfa growth or re-growth interferes with spray coverage of the target weeds.

Refer to the "ANNUAL WEEDS RATE SECTION" and "PERENNIAL WEEDS RATE SECTION" of this label for application rates for specific weeds. When applied as directed, this product will control the annual and perennial grasses and broadleaf weeds listed. This product will also suppress or control the parasitic weed dodder (*Cuscuta* spp.) in Roundup Ready or glyphosate resistant alfalfa. More than one application might be necessary for complete control.

**PRECAUTIONS:** Freezing or near freezing conditions, or large temperature swings, within 5 days after application of this product to Roundup Ready or glyphosate resistant alfalfa could result in a limited, temporary crop response.



**New Stand Establishment (Seeding Year)** – Due to the biology and breeding constraints of alfalfa, up to 10 percent of the seedlings might not contain a Roundup Ready or glyphosate resistant gene and will not survive after the first application of this product. To eliminate the undesirable effects of stand gaps created by this loss of plants, make a single application of at least 24 fluid ounces (0.75 lb ae) of this product per acre at or before the 4-trifoliolate seeding stage. Refer to the following table for application rates during stand establishment (seeding year).

NEW STAND ESTABLISHMENT (Seeding Year) Application Rates Per Acre	
<b>Prior to First Cutting</b>	
From emergence up to 4 trifoliolate leaves	24 to 48 fluid ounces (0.75 – 1.5 lb ae)
From 5 trifoliolate leaves up to 5 days before first cutting	Up to 48 fluid ounces (1.5 lb ae)
<b>After First Cutting</b>	
In-crop application, per cutting, up to 5 days before cutting	Up to 48 fluid ounces (1.5 lb ae)

**TANK MIXTURES:** Up to 48 fluid ounces (1.5 lb ae) of this product per acre may be applied postemergence (in-crop) over the top of Roundup Ready or glyphosate resistant alfalfa in the seeding year in a tank-mix with the following products after weeds have emerged, but before alfalfa growth or re-growth interferes with spray coverage of the target weeds. Ensure that the product used in the tank-mix is labeled for application postemergence (in-crop) to alfalfa. Read and follow label directions for all products in the tank mixture.

Clethodim	Imazethapyr	Sethoxydim
Imazamox	Quizalofop-p-ethyl	

**PRECAUTIONS:** Imazamox or Imazethapyr applied to seedling alfalfa could result in a temporary reduction in growth.

**RESTRICTION:** **DO NOT** include crop oil concentrate or methylated seed oil in tank mixtures of this product with Imazamox or Imazethapyr as unsatisfactory crop injury could result.

**Established Stands (Non-seeding Year)** – Refer to the following table for directions and application rates for in-crop application to established stands of alfalfa (non-seeding year).

**TANK MIXTURES:** This product may be applied postemergence (in-crop) over the top of established stands of Roundup Ready or glyphosate resistant alfalfa in tank mixtures described below according to the growing condition of the crop. Ensure that the product used is labeled for application postemergence (in-crop) to alfalfa. Read and follow label directions for all products in the tank mixture.

**Actively growing alfalfa:** For control of emerged annual grasses and broadleaf weeds when alfalfa is actively growing, this product may be applied at up to 48 fluid ounces (1.5 lb ae) per acre in a tank mixture with the following herbicides.

Clethodim	Imazethapyr	Sethoxydim
Imazamox	Quizalofop-p-ethyl	

**PRECAUTIONS:** **DO NOT** include crop oil concentrate or methylated seed oil in tank mixtures of this product with Imazamox or Imazethapyr as unsatisfactory crop injury could result.

**Dormant Alfalfa:** For control of emerged annual grasses and broadleaf weeds when alfalfa is dormant, this product may be applied at up to 48 fluid ounces (1.5 lb ae) per acre in a tank mixture with the following herbicides when daily temperatures remain above freezing.

Imazamox	Metribuzin	Propyzamide
Imazethapyr	Pronamide	

**PRECAUTIONS:** **DO NOT** include crop oil concentrate or methylated seed oil in tank mixtures of this product with Imazamox or Imazethapyr as unsatisfactory crop injury could result.

Where Roundup Ready or glyphosate resistant alfalfa is grown with a companion or cover crop, or is over-seeded with a second species, in-crop (over-the-top) application of this product will eliminate the non-Roundup Ready (non-glyphosate-resistant) species.

**RESTRICTIONS:** **DO NOT** exceed 48 fluid ounces (1.5 lb ae) per acre for any single in-crop application of this product. Sequential applications of this product must be a minimum of 7 days apart. The combined total per year for all in-crop applications in both newly established (seeding year) and established stands (non-seeding year) must not exceed 4.5 quarts (144 fluid ounces) (4.5 lb ae) per acre. **DO NOT** apply to frozen or snow covered ground. Remove domestic livestock before application. Wait a minimum of 5 days after application before grazing or cutting or feeding of forage and hay.

#### **Roundup Ready or Glyphosate Resistant Canola (Spring Varieties)**

For directions for use of this product on TruFlex Roundup Ready or glyphosate resistant Canola, refer to that section of this label. **DO NOT** combine these directions for use on Roundup Ready or glyphosate resistant canola with the directions for use on TruFlex Roundup Ready canola.

Roundup Ready or glyphosate resistant spring canola is defined as those Roundup Ready or glyphosate resistant canola varieties that are seeded in the spring and harvested in the fall and **DO NOT** enter a winter dormancy period.

**TYPES OF APPLICATION:** Preplant; At-Planting; Preemergence; Postemergence (in-crop); Postemergence (in-crop) in Hybrid Seed Production Only

**USE INSTRUCTIONS:** Refer to the following table for the maximum application rates for this product with spring varieties of Roundup Ready or glyphosate resistant canola.

Maximum Application Rates Per Acre	
Total for all Preplant, At-Planting, Preemergence applications	48 fluid ounces (1.5 lb ae)
Total for all in-crop applications from emergence to 6-leaf stage	24 fluid ounces (0.75 lb ae)

See the "ROUNDUP READY OR GLYPHOSATE RESISTANT CROPS" section of this label for information regarding the use of this product in Roundup Ready or glyphosate resistant crops. See the "PRODUCT INFORMATION" section of this label for more information on Maximum Application Rates.

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

**USE INSTRUCTIONS:** This product may be applied before, during or after planting Roundup Ready or glyphosate resistant spring canola.

**RESTRICTIONS:** Maximum quantity of this product that may be applied for all preplant, at-planting and preemergence applications combined is 48 fluid ounces (1.5 lb ae) per acre per year.

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

**USE INSTRUCTIONS:** This product may be applied postemergence (in-crop) to spring varieties of Roundup Ready or glyphosate resistant canola from emergence through the 6-leaf stage of development, unless otherwise directed. Application made during bolting or flowering could result in crop injury and yield loss. To maximize yield potential, eliminate competing weeds early.

**Single Application** – Apply 12 to 18 fluid ounces (0.38 – 0.56 lb ae) of this product per acre no later than the 6-leaf stage for the control of annual weeds. Avoid overlapping applications as this could result in temporary yellowing, delayed flowering, and/or growth reduction. Similar crop injury could result when more than 12 fluid ounces (0.38 lb ae) per acre is applied after the 4-leaf stage.

**Sequential Application** – Apply 12 fluid ounces (0.38 lb ae) of this product 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 application works better for control of early emerging annual and perennial weeds, such as Canada thistle and quackgrass, or whenever more than one application is needed for adequate weed control.



**RESTRICTIONS:** No more than two in-crop (over-the-top) broadcast applications may be made from crop emergence through the 6-leaf stage of development and the total in-crop application must not exceed 24 fluid ounces (0.75 lb ae) of this product per acre. **Preharvest Interval (PHI):** 60 days after treatment.

#### Postemergence (In-crop) in Hybrid Seed Production Only

This postemergence application is for use only in hybrid canola seed production of both spring and winter varieties.

This product may be applied at a rate of between 12 to 24 fluid ounces (0.38 – 0.75 lb ae) per acre from emergence until pollination is complete or near completion for the control of non-glyphosate-tolerant canola pollen parental line(s) in hybrid canola seed production fields containing both Roundup Ready or glyphosate resistant canola line(s) and non-glyphosate tolerant line(s). Sequential applications may be made for the control of non-glyphosate-tolerant pollen parental lines up to a maximum total application rate of 24 fluid ounces (0.75 lb ae) per acre.

**RESTRICTIONS: DO NOT** make this application on canola grown for food or feed. Allow a minimum of 5 days between sequential applications. Maximum total application rate of this product for all postemergence (in-crop) applications in hybrid canola seed production fields, including application for weed control and control of non-glyphosate-tolerant canola, is 24 fluid ounces (0.75 lb ae) per acre.

#### Roundup Ready or Glyphosate Resistant Canola (Winter Varieties)

For directions for use of this product on TruFlex Roundup Ready Canola, refer to that section of this label. **DO NOT** combine these directions for use on Roundup Ready or glyphosate resistant canola with the directions for use on TruFlex Roundup Ready canola.

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

**TYPES OF APPLICATION:** Preplant; At-Planting; Preemergence; Postemergence (In-crop)

**USE INSTRUCTIONS:** Refer to the following table for the maximum application rates of this product with winter varieties of Roundup Ready or glyphosate resistant canola.

Maximum Application Rates Per Acre	
Total for all Preplant, At-Planting, Preemergence applications	48 fluid ounces (1.5 lb ae)
Total for all In-crop applications from emergence to canopy closure or prior to bolting in the spring	48 fluid ounces (1.5 lb ae)

See the "ROUNDUP READY OR GLYPHOSATE RESISTANT CROPS" section of this label for information regarding the use of this product in Roundup Ready or glyphosate resistant crops. See the "PRODUCT INFORMATION" section of this label for more information on Maximum Application Rates.

#### Preplant, At-Planting, Preemergence

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

#### Postemergence (In-crop)

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

Some weeds with multiple germination times, or suppressed (stunted) weeds, or weeds that have overwintered, might need a sequential application of this product for control. Make the second application after some re-growth has occurred and a minimum of 60 days after the initial application of this product.

**Single Application** – Apply 18 to 24 fluid ounces (0.56 – 0.75 lb ae) of this product per acre in the fall when weeds are small and actively growing. Use a higher rate within this range when weed densities are high, when weeds have overwintered or when weeds become large and well established. Application of more than 18 fluid ounces (0.56 lb ae) per acre prior to the 6-leaf stage could result in reduced crop growth in the fall. Avoid spray overlaps as this could result in temporary yellowing and/or growth reduction.

**Sequential Application** – Apply 12 to 24 fluid ounces (0.38 – 0.75 lb ae) of this product per acre to 2-leaf or larger canola in the fall, followed by a sequential application at the same rate and at a minimum interval of 60 days, but before bolting in the spring. Sequential application works best for control of early-emerging annual weeds and winter emerging weeds, such as downy brome, jointed goatgrass and ryegrass, and for weeds that have overwintered. This product will control or suppress most perennial weeds. For some perennial weeds, a sequential application might be needed to reduce competition with the crop.

**RESTRICTIONS:** No more than two over-the-top broadcast applications may be made from crop emergence up to the onset of bolting, and the total in-crop application must not exceed 48 fluid ounces (1.50 lb ae) of this product per acre. **Preharvest Interval (PHI):** 60 days after treatment of canola grain. No waiting period is required between application and open grazing of livestock.

#### TruFlex Roundup Ready Canola (Spring Varieties)

TruFlex Roundup Ready spring canola is defined as those varieties of TruFlex Roundup Ready canola that are seeded in the spring and harvested in the fall and **DO NOT** enter a period of winter dormancy.

**The directions for use provided in this section are specific to and may only be used with varieties designated as TruFlex Roundup Ready canola.** Applications described on this label made over the top of canola that is not designated as TruFlex Roundup Ready canola could cause serious crop injury and reduced yields. **DO NOT** combine these directions for use with those in the "Roundup Ready or Glyphosate Resistant Canola" section of this label or with any other directions for use on canola on labeling for this or any other glyphosate-containing product. Drift of this product from an application made to TruFlex Roundup Ready canola onto adjacent fields of Roundup Ready or glyphosate resistant canola could cause extensive crop injury.

**TYPES OF APPLICATION:** Preplant; At-Planting; Preemergence; Postemergence (In-crop); Postemergence (In-crop) in Hybrid Seed Production Only

**USE INSTRUCTIONS:** Refer to the following table for the maximum application rates of this product with spring varieties of TruFlex Roundup Ready canola.

Maximum Application Rates Per Acre	
Total for all Preplant, At-Planting, Preemergence applications	3.75 quarts (3.75 lb ae)
Total for all In-crop applications from emergence through harvest	48 fluid ounces (1.5 lb ae)
Total for all In-crop applications from emergence through the 6-leaf stage	48 fluid ounces (1.5 lb ae)
Total for all In-crop applications from the 6-leaf stage through first-flower	24 fluid ounces (0.75 lb ae)

See the "ROUNDUP READY OR GLYPHOSATE RESISTANT CROPS" section of this label for information regarding the use of this product in Roundup Ready glyphosate resistant crops. See the "PRODUCT INFORMATION" section of this label for more information on Maximum Application Rates.

#### Preplant, At-Planting, Preemergence

**USE INSTRUCTIONS:** Up to 3.75 quarts (3.75 lb ae) of this product may be applied before, during or after planting spring varieties of TruFlex Roundup Ready canola.

### Postemergence (In-crop)

USE INSTRUCTIONS: This product may be applied postemergence (in-crop) to spring varieties of TriFlex Roundup Ready canola from emergence through the first-flower stage of development. To maximize yield potential, eliminate competing weeds early.

For control of Canada thistle and morning glory, apply 48 fluid ounces (1.5 lb ae) of this product per acre no later than the 6-leaf stage of canola development. For control of wild buckwheat over 2 inches in size, make sequential applications of 24 fluid ounces (0.75 lb ae) followed by 24 fluid ounces (0.75 lb ae) of this product per acre. For control of other annual weeds, apply up to 48 fluid ounces (1.5 lb ae) of this product per acre no later than the 6-leaf stage or up to 24 fluid ounces (0.75 lb ae) after the 6-leaf stage through first-flower.

RESTRICTIONS: No more than two in-crop (over-the-top) broadcast applications may be made from crop emergence through the first-flower stage of canola development and the total in-crop application must not exceed 48 fluid ounces (1.5 lb ae) of this product per acre. No more than 24 fluid ounces (0.75 lb ae) of this product may be applied in-crop after the 6-leaf stage.

### Postemergence (In-crop) in Hybrid Seed Production Only

This postemergence application is for use only in hybrid canola seed production of both spring and winter varieties.

This product may be applied at a rate of between 14 to 27 fluid ounces (0.44 – 0.84 lb ae) per acre from emergence until pollination is complete or near completion for the control of non-glyphosate-tolerant canola pollen parental line(s) in hybrid canola seed production fields containing both Roundup Ready or glyphosate resistant canola line(s) and non-glyphosate-tolerant line(s). Sequential applications may be made for the control of non-glyphosate-tolerant pollen parental lines up to a maximum total application rate of 22 fluid ounces (0.69 lb ae) per acre.

RESTRICTIONS: **DO NOT** make this application on canola grown for food or feed. Allow a minimum of 5 days between sequential applications. Maximum total application rate of this product for all postemergence (in-crop) applications in hybrid canola seed production fields, including application for weed control and control of non-glyphosate-tolerant canola, is 27 fluid ounces (0.84 lb ae) per acre.

### Field Corn Hybrids with Roundup Ready or Glyphosate Resistant

TYPES OF APPLICATION: Preplant; Preemergence; At-Planting; Postemergence (In-crop); Spot Treatment; Preharvest; Post-Harvest.

Maximum Application Rates Per Acre	
Combined total per year for all applications	6 quarts (6.0 lb ae)
Total for all Preplant, At-Planting, Preemergence applications	3.8 quarts (3.80 lb ae)
Total for all In-crop applications from emergence through the V8 stage to 30 inches	48 fluid ounces (1.50 lb ae)
Maximum Preharvest application rate after maximum kernel fill is complete and the crop is physiologically mature (black layer formation) until 7 days before harvest	24 fluid ounces (0.75 lb ae)

### Preplant, At-planting, Preemergence

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

TANK MIXTURES: This product may be tank mixed with Acetochlor, Acetochlor + Atrazine, Alachlor, Alachlor + Atrazine, Atrazine at 50 to 100 percent of labeled rate. It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

**Note:** For maximum weed control, make a postemergence (in-crop) application of this product following the use of a preemergence residual product listed above.

### Postemergence (In-crop)

USE INSTRUCTIONS: This product may be applied postemergence to corn hybrids designated as Roundup Ready or glyphosate resistance 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 annual grass and broadleaf weeds in Roundup Ready and specified glyphosate resistant corn. Many perennial grasses and broadleaf weeds will be controlled or suppressed with one or more application of this product. The post-emergent application of 18 to 24 fluid ounces (0.75 lb ae) per acre of this product must be made before the weeds reach a height and/or density that the weeds become competitive with the crop, generally 4 inches 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. In new flushes of weeds occur, a sequential application of this product at 18 to 24 fluid ounces (0.56 – 0.75 lb ae) per acre will control the labeled grasses and broadleaf weeds.

TANK MIXTURES: This product may be tank mixed with Acetochlor, Acetochlor + Atrazine, Alachlor, Alachlor + Atrazine, Atrazine at 50 to 100 percent of labeled rate. This product may be applied in tank mixture with Halosulfuron-methyl and atrazine at labeled rates. It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Tank Mix Partner	Maximum Height of For Application
Acetochlor Acetochlor + Atrazine	11 inches
Alachlor* Alachlor + Atrazine*	5 inches
Atrazine	12 inches
Halosulfuron-methyl	30 inches

\*Alachlor and Alachlor + Atrazine are not registered for use as a postemergence application in Texas.

PRECAUTIONS: See the "ROUNDUP READY OR GLYPHOSATE RESISTANT CROPS" section of this label for precautionary instructions for use in Roundup Ready and specified glyphosate resistant crops.

RESTRICTIONS: Single in-crop applications of this product must not exceed 24 fluid ounces (0.75 lb ae) per acre. Sequential in-crop applications of this product from emergence through V8 stage to 30 inches must not exceed 48 fluid ounces (1.50 lb ae) per acre per year. Allow a minimum of 10 days between in-crop applications of this product. **Preharvest Interval (PHI):** 50 days after treatment for harvest of forage and grain.

### Preharvest

USE INSTRUCTIONS: In Roundup Ready and specified glyphosate resistant corn, up to 24 fluid ounces (0.75 lb ae) per acre of this product can be applied preharvest. Make application at 35 percent grain moisture or less. Ensure that maximum kernel fill is complete and the corn is physiologically mature (black layer formed).

RESTRICTIONS: **Preharvest Interval (PHI):** 7 days after treatment.

### Postharvest

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.

RESTRICTIONS: **Preharvest Interval (PHI):** 7 days after treatment for harvest or feeding treated vegetation.

### Field Corn Hybrids with Roundup Ready 2 Technology or Glyphosate Resistant

Field corn hybrids with Roundup Ready 2 Technology include Roundup Ready Corn 2 and field corn seed products displaying the Roundup Ready 2 Technology logo.

The directions for use in this section refer only to FIELD CORN hybrids with Roundup Ready 2 Technology or glyphosate resistant. For directions for use on SWEET CORN hybrids that contain Roundup Ready 2 Technology or glyphosate resistant, see the "Sweet Corn Hybrids with Roundup Ready 2 Technology or glyphosate resistant" section of this label.

**TYPES OF APPLICATION:** Preplant; At-Planting; Preemergence; Postemergence (In-crop); Spot Treatment; Preharvest; Post-Harvest; Postemergence (In-crop) for Tassel Control in Roundup Hybridization Systems Only

**USE INSTRUCTIONS:** Refer to the following table for maximum application rates of this product with field corn hybrids with Roundup Ready 2 Technology or glyphosate resistant.

Maximum Application Rates Per Acre	
Combined total per year for all applications	6 quarts (6.0 lb ae)
Total for all Preplant, At-Planting, Preemergence applications	3.8 quarts (3.8 lb ae)
Maximum single In-crop application rate up to 48-inch corn	36 fluid ounces (1.13 lb ae)
Total for all In-crop applications from emergence through 48-inch corn	72 fluid ounces (2.25 lb ae)

\*See RESTRICTIONS section for Preharvest application

See the "ROUNDUP READY OR GLYPHOSATE RESISTANT CROPS" section of this label for information regarding the use of this product in Roundup Ready or glyphosate resistant crops. See the "PRODUCT INFORMATION" section of this label for more information on Maximum Application Rates.

**PRECAUTIONS:** The use of the in-crop (over-the-top) rates described in this section on other than field corn hybrids with Roundup Ready 2 Technology or glyphosate resistant could cause crop injury and reduced yields.

#### Preplant, At-Planting, Preemergence

**USE INSTRUCTIONS:** This product may be applied alone or in a tank mixture before, during or after planting field corn hybrids with Roundup Ready 2 Technology or glyphosate resistant.

**TANK MIXTURES:** This product may be tank-mixed with the following products. Apply these tank mixtures in 10 to 20 gallons of water, or 10 to 60 gallons of nitrogen solution, per acre. Ensure that the product used is labeled for application prior to emergence of field corn. Read and follow label directions for all products in the tank mixture.

2,4-D	Dimethenamid	Metolachlor
Acetochlor	Dimethenamid-p	S-metolachlor
Atrazine	Flufenacet	Metribuzin
Bicyclopyrone	Flumetsulam	Pendimethalin
Carfentrazone-ethyl	Flumiclorac pentyl ester	Rimsulfuron
Clopyralid	Isoxaflutole	Saflufenacil
Dicamba	Linuron	Simazine
Diffenozopyr	Mesotrione	Thiencarbazone-methyl

**RESTRICTIONS:** Maximum quantity of this product that may be applied for all preplant, at-planting and preemergence applications combined is 3.8 quarts (3.8 lb ae) per acre per year. Application of 2,4-D or dicamba must be made a minimum of 7 days prior to planting corn.

**Note:** For maximum weed control, make a postemergence (in-crop) application of this product following the use of a preemergence residual product listed above.

#### Postemergence (In-crop)

**USE INSTRUCTIONS:** This product may be applied alone or in a tank-mix over the top of field corn hybrids with Roundup Ready 2 Technology or glyphosate resistant from emergence

through the V8 stage (8 leaves with collars), or until corn plant height reaches 30 inches (freestanding), whichever comes first, unless otherwise directed. Use drop nozzles for optimum spray coverage and weed control when corn plant height is 24 to 30 inches. When corn plants are 30 to 48 inches tall (freestanding), apply this product using **only** ground application equipment fitted with drop nozzles aligned to avoid spraying into the whorls of the corn plants. Maximum single in-crop application rate of this product up to 48-inch field corn is 36 fluid ounces (1.13 lb ae) per acre. Total in-crop application of this product from corn plant emergence through 48 inches in height must not exceed 72 fluid ounces (2.25 lb ae) per acre.

When applied as directed, this product will control annual grasses and broadleaf weeds listed on this label. Many perennial grasses and broadleaf weeds will be controlled or suppressed with one or more applications of this product. Make a postemergence application of 18 to 24 fluid ounces (0.56 – 0.75 lb ae) of this product per acre before weeds exceed 4 inches in height (before they become competitive with the crop). Repeat this application before new flushes of weeds exceed 4 inches in height.

**TANK MIXTURES:** This product may be tank-mixed with the following products. Ensure that the product used is labeled for application postemergence (in-crop) to field corn. Read and follow label directions for all products in the tank mixture.

2,4-D	Diffenozopyr	Mesotrione
Acetochlor	Flumetsulam	Nicosulfuron
Atrazine	Flumiclorac pentyl ester	Rimsulfuron
Bicyclopyrone	Foramsulfuron	Tembotrione
Carfentrazone-ethyl	Halosulfuron-methyl	Thiencarbazone-methyl
Clopyralid	Iodosulfuron-methyl-sodium	Thifensulfuron methyl
Dicamba	Isoxaflutole	Topramezone

**RESTRICTIONS:** Allow a minimum of 10 days between in-crop applications of this product.

**Preharvest Interval (PHI):** 50 days after treatment for harvest of corn forage or grain.

#### Preharvest

**USE INSTRUCTIONS:** Up to 24 fluid ounces (0.75 lb ae) of this product per acre may be applied for annual and perennial weed control prior to harvest when kernel fill is complete and the corn is physiologically mature (black layer formed) and grain moisture is 35 percent or less.

**RESTRICTIONS:** A preharvest application may be made only if the combined total of previously applied over-the-top or drop nozzle applications does not exceed 48 fluid ounces (1.50 lb ae) of this product per acre. **Preharvest Interval (PHI):** 7 days after treatment for harvest or feeding of corn stover or grain.

#### Post-Harvest

**USE INSTRUCTIONS:** This product may be applied for weed control after crop harvest. Higher rates might be needed for control of large weeds that were growing in the field at the time of harvest. Tank mixtures with 2,4-D or Dicamba may be used. Ensure that the product used is labeled for post-harvest application in field corn. Read and follow label directions for all products in the tank mixture.

**RESTRICTIONS:** Application must be made a minimum of 30 days prior to the planting of any crop not listed on this label. **Preharvest Interval (PHI):** 7 days after treatment for harvest or feeding of vegetation.

#### Postemergence (In-crop) for Tassel Control in Roundup Hybridization Systems Only

This application is for use **only** in seed production of corn hybrids using the Roundup Hybridization System (RHS). **DO NOT** make this application on corn grown for food or feed.

The RHS designation indicates that the corn contains proprietary gene technology that allows for tassel-only susceptibility to this product. Use of this product on corn hybrids or inbreds that are not designated as RHS or as corn containing Roundup Ready 2 Technology or glyphosate resistant could result in severe crop injury and yield loss.

USE INSTRUCTIONS: This product may be applied at rates of between 11 and 32 fluid ounces (0.34 – 1.00 lb ae) per acre as an over-the-top broadcast application for tassel control in RHS-based seed corn production fields from the V8 stage until either the V13 stage or 100 GDU (Growing Degree Units) before flowering.

RESTRICTIONS: Make no more than two applications of this product for tassel control. The maximum total application rate of this product for tassel control is 72 fluid ounces (2.25 lb ae). The maximum combined total amount of this product that may be applied per year for both weed control and tassel control is 6 quarts (6.0 lb ae) per acre.

### Roundup Ready or Glyphosate Resistant Sweet Corn

Sweet corn hybrids with Roundup Ready 2 Technology include Roundup Ready Sweet Corn and sweet corn seed products displaying the Roundup Ready 2 Technology logo.

The directions for use in this section apply only to use on Roundup Ready Sweet Corn or glyphosate resistant. For directions for use on FIELD CORN hybrids that contain Roundup Ready 2 Technology or glyphosate resistant, see the "Field Corn Hybrids with Roundup Ready 2 Technology or glyphosate resistant" section of this label.

TYPES OF APPLICATION: Preplant; At-Planting; Preemergence; Postemergence (In-crop)

USE INSTRUCTIONS: Refer to the following table for maximum application rates of this product with Roundup Ready sweet corn or glyphosate resistant.

Maximum Application Rates Per Acre	
Combined total per year for all applications	6 quarts (6.0 lb ae)
Total for all Preplant, At-Planting, Preemergence applications	3.8 quarts (3.8 lb ae)
Maximum single In-crop application rate up to 48-inch sweet corn	1.5 quarts (1.5 lb ae)
Total for all In-crop applications from emergence through 48-inch sweet corn	4.5 quarts (4.5 lb ae)

See the "ROUNDUP READY OR GLYPHOSATE RESISTANT CROPS" section of this label for information regarding the use of this product in Roundup Ready or glyphosate resistant crops. See the "PRODUCT INFORMATION" section of this label for more information on Maximum Application Rates.

PRECAUTIONS: The use of the in-crop (over-the-top) applications described in this section on other than Roundup Ready or glyphosate resistant sweet corn could cause crop injury and reduced yields.

### Preplant, At-Planting, Preemergence

USE INSTRUCTIONS: This product may be applied alone or in a tank mixture before, during or after planting Roundup Ready or glyphosate resistant sweet corn.

TANK MIXTURES: This product may be tank-mixed with the residual herbicide products listed below for maximum weed control. Ensure that the product used is labeled for application prior to emergence of sweet corn. Read and follow label directions for all products in the tank mixture. Apply these tank mixtures in 10 to 20 gallons of water or in 10 to 60 gallons of nitrogen solution per acre.

Acetochlor	Dimethenamid	Metolachlor
Atrazine	Dimethenamid-p	S-metolachlor
Carfentrazone-ethyl		

RESTRICTIONS: Maximum quantity of this product that may be applied for all preplant, at-planting and preemergence applications combined is 3.8 quarts (3.8 lb ae) per acre per year.

### Postemergence (In-crop)

USE INSTRUCTIONS: Apply this product alone or in a tank mixture over the top of Roundup Ready or glyphosate resistant sweet corn from emergence through the V8 stage (8 leaves with collars), or until sweet corn plant height reaches 30 inches (freestanding), whichever comes first. Use drop nozzles for optimum spray coverage and weed control when sweet corn plant height is 24 to 30 inches. When sweet corn plants are 30 to 48 inches tall

(freestanding), apply this product using **only** ground application equipment fitted with drop nozzles aligned to avoid spraying into the whorls of the sweet corn plants. Avoid spraying if the crop has reached the reproductive stage. Maximum single in-crop application rate of this product up to 48-inch sweet corn is 48 fluid ounces (1.50 lb ae) per acre. Total in-crop application of this product from emergence through 48 inches in height must not exceed 4.5 quarts (144 fluid ounces) (4.5 lb ae) per acre per growing year.

When applied as directed, this product will control annual grasses and broadleaf weeds listed on this label. Many perennial grasses and broadleaf weeds will be controlled or suppressed with one or more applications of this product. Apply 18 to 24 fluid ounces (0.5 – 0.75 lb ae) of this product per acre before weeds exceed 4 inches in height or before they become competitive with the crop. If new flushes of weeds occur, a sequential application of 18 to 24 fluid ounces (0.5 – 0.75 lb ae) per acre may be made before weeds exceed 4 inches in height.

TANK MIXTURES: This product may be tank-mixed with the following products. Ensure that the product used is labeled for application postemergence (in-crop) to sweet corn. Read and follow label directions for all products in the tank mixture.

Atrazine	Foramsulfuron	Topramezone
Carfentrazone-ethyl	Tembotrione	

RESTRICTIONS: Allow a minimum of 10 days between in-crop applications of this product. **DO NOT** apply atrazine in a tank-mix with this product when sweet corn plants are greater than 12 inches tall. **Preharvest Interval (PHI):** 30 days after treatment for harvest of sweet corn forage or grain.

### Roundup Ready or Glyphosate Resistant Cotton

TYPES OF APPLICATION: Preplant; At-Planting; Preemergence; Postemergence (In-crop); Selective Equipment (In-crop); Preharvest

USE INSTRUCTIONS: Refer to the following table for maximum application rates of this product with Roundup Ready or glyphosate resistant cotton.

Maximum Application Rates Per Acre	
Combined total per year for all applications	6 quarts (6.0 lb ae)
Total for all Preplant, At-Planting, Preemergence applications	3.8 quarts (3.8 lb ae)
Total for all In-crop applications from cracking to layby	3 quarts (3.0 lb ae)
Maximum Preharvest application rate	1.5 quarts (1.5 lb ae)
Combined total for all In-crop applications from emergence through harvest	4.5 quarts (4.5 lb ae)

See the "ROUNDUP READY OR GLYPHOSATE RESISTANT CROPS" section of this label for information regarding the use of this product in Roundup Ready or glyphosate resistant crops. See the "PRODUCT INFORMATION" section of this label for more information on Maximum Application Rates.

### Preplant, At-Planting, Preemergence

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

TANK MIXTURES: This product may be tank-mixed with 2,4-D or Dicamba and applied prior to planting only. This product may be tank-mixed with the following products and applied prior to crop emergence. Ensure that the product used is labeled for application prior to the emergence of cotton. Read and follow label directions for all products in the tank mixture.

Acetochlor	Fomesafen	Pendimethalin
Clomazone	Metolachlor	Pyrimethr
Diuron	S-metolachlor	Pyriothiac-sodium
Flumioxazin	Norflurazon	Salfufenacil
Fluometuron		

RESTRICTIONS: Maximum quantity of this product that may be applied for all preplant, at-planting and preemergence applications combined is 3.8 quarts (3.8 lb ae) per acre per year.

#### Postemergence (In-crop)

USE INSTRUCTIONS: This product may be applied over the top of Roundup Ready or glyphosate resistant cotton (in-crop) at rates of up to 24 fluid ounces (0.75 lb ae) per acre per application from cracking until the 4-leaf (node) stage of development (until the fifth true leaf reaches the size of a quarter). No more than two over-the-top broadcast applications may be made from crop emergence through the 4-leaf (node) stage of development. Sequential over-the-top or post-directed applications of this product in-crop must be a minimum of 10 days apart and cotton must have at least two nodes of incremental growth between applications. Over-the-top application made after the 4-leaf (node) stage of development could result in boll loss, delayed maturity and/or yield loss.

TANK MIXTURES: This product may be tank-mixed with the following products and applied over the top of Roundup Ready or glyphosate resistant cotton up to the 4-leaf stage. Ensure that the product used is labeled for application postemergence (in-crop) to cotton. Read and follow label directions for all products in the tank mixture.

Acetochlor	Metolachlor	Quizalofop-p-ethyl
Clethodim	S-metolachlor	Sethoxydim
Fluazifop-p-butyl	Monosodium acid methanearsonate	Trifloxysulfuron-sodium
Fomesafen	Pyriithiobac-sodium	

PRECAUTIONS: Pyriithiobac sodium could cause leaf yellowing and/or leaf crinkling when applied postemergence (in-crop) to Roundup Ready or glyphosate resistant cotton. Metolachlor and S-metolachlor applied over the top of Roundup Ready or glyphosate resistant cotton could cause leaf injury in the form of necrotic spotting.

**Salvage Treatment** – may be made after the 4-leaf stage of development and only when weeds threaten to cause the loss of the crop. Apply 24 fluid ounces (0.75 lb ae) of this product per acre either as an over-the-top application or as a post-directed application sprayed higher on the cotton plants and onto the weeds.

IN THE STATE OF ARIZONA ONLY, up to 36 fluid ounces (1.13 lb ae) of this product may be applied per acre either as an over-the-top application or a post-directed application for salvage treatment.

PRECAUTIONS: Salvage treatment will result in significant boll loss, delayed maturity and/or yield loss. No more than one salvage treatment may be made per year.

RESTRICTIONS: Maximum quantity of this product that may be applied for all in-crop applications from cracking to layby combined is 2.8 quarts (2.8 lb ae) per acre per year. **DO NOT** add additional surfactant or additives containing surfactant to this product (other than those contained in any tank-mix product) for over-the-top application to Roundup Ready or glyphosate resistant cotton. **Preharvest Interval (PHI):** 7 days after treatment.

#### Selective Equipment (In-crop)

USE INSTRUCTIONS: This product may be applied using precision post-directed or hooded sprayers at rates of up to 24 fluid ounces (0.75 lb ae) per acre per application to Roundup Ready or glyphosate resistant cotton through layby. At this crop stage, use post-directed application equipment to direct the spray towards the base of the cotton plants, avoiding contact of the herbicide spray with the leaves of the plant. To minimize contact, maintain a low spray pressure (less than 30 pounds per square inch) and place nozzles in a low position directing a horizontal spray pattern under the leaves of the cotton plant and onto the weeds in the row. For enhanced results, apply this product while weeds are small (less than 3 inches in height). See additional use instructions in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label.

TANK MIXTURES: This product may be tank-mixed with the following products for in-crop application using precision post-directed or hooded sprayers. Ensure that the product used is labeled for application postemergence (in-crop) to cotton. Read and follow label directions for all products in the tank mixture.

Acetochlor	Fomesafen	Pendimethalin
Carfentrazone-ethyl	Linuron	Prometryn
Diuron	Metolachlor	Pyriithiobac-sodium
Flumioxazin	Monosodium acid methanearsonate	Trifloxysulfuron-sodium
Fluometuron		

PRECAUTIONS: Pyriithiobac sodium could cause leaf yellowing and/or leaf crinkling when applied postemergence (in-crop) to Roundup Ready or glyphosate resistant cotton.

RESTRICTIONS: Maximum quantity of this product that may be applied for all in-crop applications from cracking to layby combined is 2.8 quarts (2.8 lb ae) per acre per year. No more than two applications of this product may be made from the 5-leaf stage through layby. Sequential over-the-top or post-directed in-crop applications of this product must be a minimum of 10 days apart and cotton must have at least two nodes of incremental growth between applications. **Preharvest Interval (PHI):** 7 days after treatment.

#### Preharvest

USE INSTRUCTIONS: Up to 48 fluid ounces (1.50 lb ae) of this product per acre may be applied for annual and perennial weed control prior to crop harvest after 20 percent boll crack.

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

PRECAUTIONS: **DO NOT** apply this product for preharvest weed control to cotton grown for seed, as a reduction in germination or vigor could occur.

RESTRICTIONS: **DO NOT** add additional surfactant or additives containing surfactant to Roundup Ready or glyphosate-resistant cotton. **Preharvest Interval (PHI):** 7 days after treatment.

**Attention:** Use of this product in accordance with label directions is expected. To result in normal growth of roundup ready cotton, however, due to the Sensitivity of cotton fruiting to various environmental conditions, agronomic Practices and other factors, it is impossible to eliminate all risks associated with this product, even when applications are made in accordance with the Label directions. In some cases, these factors can result in boll loss, delayed Maturity and/or yield loss.

#### Roundup Ready Flex Cotton

The directions for use of this product provided in this section are specific to and may only be used with varieties designated as Roundup Ready Flex cotton. Applications described in this section made over the top of cotton other than Roundup Ready Flex cotton will cause crop injury and reduced yields. **DO NOT** combine the directions for use in this section with those in the "Roundup Ready or Glyphosate Resistant Cotton" section of this label, or with any other directions for use on Roundup Ready or glyphosate resistant cotton or Roundup Ready Flex cotton on labeling for this or any other glyphosate-containing product. Drift of this product from an application made to Roundup Ready Flex cotton onto adjacent fields of post 4-leaf (node) Roundup Ready or glyphosate resistant cotton could cause extensive crop injury, including boll loss, delayed maturity and/or yield loss.

TYPES OF APPLICATION: Preplant; At-Planting; Preemergence; Postemergence (In-crop); Preharvest

USE INSTRUCTIONS: Refer to the following table for maximum application rates of this product with Roundup Ready Flex cotton.

Maximum Application Rates Per Acre	
Combined total per year for all applications	6 quarts (6.0 lb ae)
Total for all Preplant, At-Planting, Preemergence applications	3.8 quarts (3.8 lb ae)
Total for all In-crop applications from cracking to 60 percent open bolls	4.5 quarts (4.5 lb ae)
Total for all In-crop applications between layby and 60 percent open bolls	1.5 quarts (1.5 lb ae)

cont'd next page)

Maximum Application Rates Per Acre	
Total for all In-crop applications from 60 percent open bolls to 7 days prior to harvest	1.5 quarts (1.5 lb ae)
Total for all In-crop applications from emergence through harvest	4.5 quarts (4.5 lb ae)

See the "ROUNDUP READY OR GLYPHOSATE RESISTANT CROPS" section of this label for information regarding the use of this product in Roundup Ready or glyphosate resistant crops. See the "PRODUCT INFORMATION" section of this label for more information on Maximum Application Rates.

### Preplant, At-Planting, Preemergence

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

TANK MIXTURES: This product may be tank-mixed with 2,4-D or Dicamba and applied prior to planting only. This product may be tank-mixed with the following products and applied prior to crop emergence. Ensure that the product used is labeled for application prior to emergence of cotton. Read and follow label directions for all products in the tank mixture.

Acetochlor	Fomesafen	Pendimethalin
Clomazone	Metolachlor	Prometryn
Diuron	S-metolachlor	Pyriithiobac-sodium
Flumioxazin	Norflurazon	Saflufenacil
Fluometuron		

RESTRICTIONS: Maximum quantity of this product that may be applied for all preplant, at-planting and preemergence applications combined is 3.8 quarts (3.8 lb ae) per acre per year.

### Postemergence (In-crop)

USE INSTRUCTIONS: This product may be applied to control annual grasses and broadleaf weeds listed on this label in Roundup Ready Flex cotton. To maximize yield potential, eliminate competing weeds early. Many perennial weeds will be controlled or suppressed with one or more applications of this product. Use an initial application rate of 24 fluid ounces (0.75 lb ae) per acre to control or suppress 1 to 3 inch tall annual grasses and broadleaf weeds. This product may be applied postemergence to Roundup Ready Flex cotton using ground application equipment at rates up to 36 fluid ounces (1.13 lb ae) per acre per application. In addition to broadcast application, post-directed spray equipment may be used to achieve more thorough weed coverage.

IN THE STATES OF ARIZONA, NEW MEXICO AND TEXAS (WEST OF I-35) ONLY, up to 48 fluid ounces (1.50 lb ae) of this product per acre may be applied per postemergence application using ground application equipment.

TANK MIXTURES: This product may be tank-mixed with the following products and applied postemergence (in-crop) over the top of Roundup Ready Flex cotton.

Acetochlor	Metolachlor	Quizalofop-p-ethyl
Clethodim	S-metolachlor	Sethoxydim
Fluazifop-p-butyl	Monosodium acid methanearsonate	Trifloxysulfuron-sodium
Fomesafen	Pyriithiobac-sodium	

PRECAUTIONS: Pyriithiobac sodium could cause leaf yellowing and/or leaf crinkling when applied postemergence (in-crop) in Roundup Ready Flex cotton. Metolachlor or S-metolachlor applied over the top of Roundup Ready Flex cotton could cause leaf injury in the form of necrotic spotting.

This product may be tank-mixed with the following products for in-crop application using precision post-directed or hooded sprayers.

Acetochlor	Fomesafen	Pendimethalin
Carfentrazone-ethyl	Linuron	Prometryn

Diuron	Metolachlor	Pyriithiobac-sodium
Flumioxazin	Monosodium acid methanearsonate	Trifloxysulfuron-sodium
Fluometuron		

PRECAUTIONS: Pyriithiobac sodium could cause leaf yellowing and/or leaf crinkling when applied postemergence (in-crop) in Roundup Ready Flex cotton.

Ensure that the product used is labeled for application postemergence (in-crop) to cotton. Read and follow label directions for all products in the tank mixture.

RESTRICTIONS: The maximum single, in-crop application rate of this product to Roundup Ready Flex cotton using ground application equipment is 36 fluid ounces (1.13 lb ae) per acre, except in Arizona, New Mexico and west Texas (west of I-35 only), where up to 48 fluid ounces (1.50 lb ae) per acre may be applied in a single application using ground application equipment. In-crop application rates above 24 fluid ounces (0.75 lb ae) per acre made alone or with the addition of other crop chemical products containing surfactant could cause a crop response including leaf speckling or leaf necrosis. **DO NOT** exceed a maximum single, in-crop application rate of 24 fluid ounces (0.75 lb ae) of this product per acre when using aerial application equipment, except in Arizona, New Mexico and west Texas (west of I-35 only), where up to 36 fluid ounces (1.13 lb ae) may be applied as a single application using aerial application equipment. Between layby and 60 percent open bolls, the maximum combined total application rate of this product is 48 fluid ounces (1.50 lb ae) per acre. The combined total for all applications of this product made from crop emergence to 60 percent open bolls must not exceed 4.5 quarts (4.5 lb ae) per acre. **DO NOT** add additional surfactant or additives containing surfactant to this product for over-the-top application to Roundup Ready Flex cotton.

### Preharvest

USE INSTRUCTIONS: Up to 1.5 quarts (1.50 lb ae) of this product per acre may be applied to Roundup Ready Flex cotton for annual and perennial weed control prior to harvest after 60 percent boll crack.

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

RESTRICTIONS: **DO NOT** add additional surfactant or additives containing surfactant to this product for preharvest application to Roundup Ready Flex Cotton. **Preharvest Interval (PHI):** 7 days after treatment.

**Attention:** Use of this product in accordance with label directions is expected to result in normal growth of roundup ready flex cotton. However, due to the Sensitivity of cotton fruiting to various environmental conditions, agronomic Practices and other factors, it is impossible to eliminate all risks associated with this product, even when applications are made in accordance with the Label directions. In some cases, these factors can result in boll loss, delayed Maturity and/or yield loss.

### Roundup Ready or Glyphosate Resistant Soybean

TYPES OF APPLICATION: Preplant; At-Planting; Preemergence; Postemergence (In-crop); Preharvest; Post-Harvest

USE INSTRUCTIONS: Refer to the following table for maximum application rates of this product with Roundup Ready or glyphosate resistant soybean.

Maximum Application Rates Per Acre	
Combined total per year for all applications	6 quarts (6.0 lb ae)
Total for all Preplant, At-Planting, Preemergence applications	3.8 quarts (3.8 lb ae)
Total for all in-crop applications from cracking through flowering (R2 stage soybean)	72 fluid ounces (2.25 lb ae)
Maximum Preharvest application rate	24 fluid ounces (0.75 lb ae)



See the "ROUNDUP READY OR GLYPHOSATE RESISTANT CROPS" section of this label for information regarding the use of this product in Roundup Ready or glyphosate resistant crops. See the "PRODUCT INFORMATION" section of this label for more information on Maximum Application Rates.

### Preplant, At-Planting, Preemergence

USE INSTRUCTIONS: This product may be applied before, during or after planting Roundup Ready or glyphosate resistant soybean.

TANK MIXTURES: This product may be tank-mixed with 2,4-D or Dicamba and applied prior to planting only. This product may be tank-mixed with the following products and applied prior to crop emergence. Ensure that the product used is labeled for application prior to emergence of soybean. Read and follow label directions for all products in the tank mixture.

Acetochlor	Flufenacet	Metolachlor
Carfentrazone-ethyl	Flumetsulam	S-metolachlor
Chlorimuron ethyl	Flumiclorac pentyl ester	Metribuzin
Clethodim	Flumioxazin	Pendimethalin
Clomazone	Fluthiacet-methyl	Pyroxsulfone
Clorasulam-methyl	Fomesafen	Quizalofop-p-ethyl
Dimethenamid	Imazaquin	Saflufenacil
Dimethenamid-p	Imazethapyr	Sulfentrazone
Fenoxaprop-p-ethyl	Lactofen	Tribenuron methyl
Fluazifop-p-butyl	Linuron	Trifluralin

RESTRICTIONS: Maximum quantity of this product that may be applied for all preplant, at-planting and preemergence applications combined is 3.8 quarts (3.8 lb ae) per acre per year.

### Postemergence (In-crop)

USE INSTRUCTIONS: This product may be used to control annual grasses and broadleaf weeds in Roundup Ready or glyphosate resistant soybean from emergence (cracking) through flowering (R2 stage soybean). R2 stage soybean ends when a pod 5 millimeters (3/16 inch) long appears at one of the four uppermost nodes on the main stem with a fully developed leaf (R3 stage). Refer to the "ANNUAL WEEDS RATE SECTION" of this label for application rates for specific annual weeds. An initial application of 24 fluid ounces (0.75 lb ae) of this product per acre will control or suppress most 2- to 8-inch tall weeds, which are normally found approximately 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 applied up to 48 fluid ounces (1.50 lb ae) per acre as a single, in-crop application for control of annual weeds and where dense weed populations exist.

Application of 24 to 48 fluid ounces (0.75 – 1.50 lb ae) of this product per acre (single or multiple applications) will control or suppress perennial weeds, including bermudagrass, Canada thistle, common milkweed, field bindweed, hemp dogbane, horse nettle, mare's tail (horsetail), nutsedge, quackgrass, rhizome johnsongrass, redvine, trumpet creeper, swamp smartweed and wirestem muhly. For enhanced results, allow perennial weed species to achieve at least 6 inches of growth before applying this product.

Under adverse growing conditions, including drought, hail or wind damage, or a poor soybean stand that slows or delays canopy closure, a sequential application of this product might be necessary to control late flushes of weeds. IN THE SOUTHERN STATES, A SEQUENTIAL APPLICATION OF THIS PRODUCT WILL BE NEEDED TO CONTROL NEW FLUSHES OF WEEDS IN THE ROUNDUP READY SOYBEAN OR GLYPHOSATE RESISTANT CROP. To control giant ragweed, apply 24 fluid ounces (0.75 lb ae) of this product per acre when the weed is 8 to 12 inches tall to increase control and possibly avoid the need for a sequential application.

TANK MIXTURES: This product may be tank-mixed with the following products and applied postemergence (in-crop) over the top of Roundup Ready or glyphosate resistant soybean. Ensure that the product used is labeled for application postemergence (in-crop) to soybean. Read and follow label directions for all products in the tank mixture.

Acetochlor	Fenoxaprop- p-ethyl	Imazethapyr
Acifluorfen	Fluazifop-p-butyl	Lactofen
Bentazon	Flumiclorac pentyl ester	Pendimethalin
Chlorimuron-ethyl	Fluthiacet-methyl	Quizalofop-p-ethyl
Clethodim	Fomesafen	Sethoxydim
Clorasulam-methyl	Imazamox	Thifensulfuron-methyl

PRECAUTIONS: In some cases, these tank-mix products will cause visual soybean injury.

RESTRICTIONS: The combined total application of this product from crop emergence through harvest must not exceed 72 fluid ounces (2.25 lb ae) per acre. The maximum rate for any single in-crop application is 44 fluid ounces (1.38 lb ae) per acre. The maximum combined total amount of this product that may be applied during flowering (R2 stage soybean) is 48 fluid (1.50 lb ae) ounces per acre.

### Preharvest

USE INSTRUCTIONS: Apply up to 24 fluid ounces (0.75 lb ae) of this product per acre to Roundup Ready or glyphosate resistant soybean for weed control prior to harvest after pods have set and lost all green color. Take care to avoid excessive seed shatter loss due to ground application equipment.

RESTRICTIONS: **Preharvest Interval (PHI):** 14 days after treatment or feeding soybean grain, forage or hay.

### Post-Harvest

USE INSTRUCTIONS: This product may be applied for weed control after harvest of Roundup Ready or glyphosate resistant soybean. Higher rates might be needed for control of large weeds that were growing in the field at the time of harvest. Tank mixtures with 2,4-D or dicamba may be used. Ensure that the product used is labeled for weed control application after harvest of soybean. Read and follow label directions for all products in the tank mixture.

RESTRICTIONS: Application must be made a minimum of 30 days prior to the planting of any crop not listed on this label.

### Soybean Hybrids with Roundup Ready 2 Yield or Glyphosate Resistant

TYPES OF APPLICATION: Preplant; At-Planting; Preemergence; Postemergence (In-crop); Preharvest; Post-Harvest

USE INSTRUCTIONS: Refer to the following table for maximum application rates of this product with Roundup Ready 2 Yield or glyphosate resistant soybean.

Maximum Application Rates Per Acre	
Combined total per year for all applications	6 quarts (6.0 lb ae)
Total for all Preplant, At-Planting, Preemergence applications	3.8 quarts (3.8 lb ae)
Total for all In-crop applications from cracking through flowering (R2 stage soybean)	72 fluid ounces (2.25 lb ae)
Maximum Preharvest application rate	24 fluid ounces (0.75 lb ae)

See the "ROUNDUP READY OR GLYPHOSATE RESISTANT CROPS" section of this label for information regarding the use of this product in Roundup Ready or glyphosate resistant crops. See the "PRODUCT INFORMATION" section of this label for more information on Maximum Application Rates.

### Preplant, At-Planting, Preemergence

USE INSTRUCTIONS: This product may be applied before, during or after planting Roundup Ready 2 Yield or glyphosate resistant soybean.

TANK MIXTURES: This product may be tank-mixed with 2,4-D or Dicamba and applied prior to planting only. This product may be tank-mixed with the following products and applied prior to crop emergence. Ensure that the product used is labeled for application prior to emergence of soybean. Read and follow label directions for all products in the tank mixture.



Acetochlor	Flufenacet	Metolachlor
Carfentrazone-ethyl	Flumetsulam	S-metolachlor
Chlorimuron-ethyl	Flumiclorac pentyl ester	Metribuzin
Clethodim	Flumioxazin	Pendimethalin
Clomazone	Fluthiacet-methyl	Pyroxasulfone
Clorasulam-methyl	Fomesafen	Quizalofop-p-ethyl
Dimethenamid	Imazaquin	Saflufenacil
Dimethenamid-p	Imazethapyr	Sulfentrazone
Fenoxaprop-p-ethyl	Lactofen	Triflurenuron methyl
Fluazifop-p-butyl	Linuron	Trifluralin

RESTRICTIONS: Maximum quantity of this product that may be applied for all preplant, at-planting and preemergence applications combined is 3.8 quarts (3.8 lb ae) per acre per year.

#### Postemergence (In-crop)

USE INSTRUCTIONS: This product may be used to control annual grasses and broadleaf weeds in Roundup Ready 2 Yield or glyphosate resistant soybean from emergence (cracking) through flowering (R2 stage soybean). R2 stage soybean ends when a pod 5 millimeters (3/16 inch) long appears at one of the four uppermost nodes on the main stem with a fully developed leaf (R3 stage). Refer to the "ANNUAL WEEDS RATE SECTION" of this label for application rates for specific annual weeds. An initial application of 24 fluid ounces (0.75 lb ae) of this product per acre will control or suppress most 2- to 8-inch tall weeds, which are normally found approximately 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 applied up to 48 fluid ounces (1.50 lb ae) per acre as a single, in-crop application for control of annual weeds and where dense weed populations exist.

Application of 24 to 48 fluid ounces (0.75 – 1.50 lb ae) of this product per acre (single or multiple applications) will control or suppress perennial weeds, including bermudagrass, Canada thistle, common milkweed, field bindweed, hemp dogbane, horse-nettle, mare's tail (horseteed), nutsedge, quackgrass, rhizome johnsongrass, redvine, trumpet creeper, swamp smartweed and wirestem mulch. For enhanced results, allow perennial weed species to achieve at least 6 inches of growth before applying this product.

Under adverse growing conditions, including drought, hail or wind damage, or a poor soybean stand that slows or delays canopy closure, a sequential application of this product might be necessary to control late flushes of weeds. In the southern states, a sequential application of this product will be required to control new flushes of weeds in the Roundup Ready 2 Yield or glyphosate resistant soybean crop. To control giant ragweed, apply 24 fluid ounces (0.75 lb ae) of this product per acre when the weed is 8 to 12 inches tall to increase control and possibly avoid the need for a sequential application.

TANK MIXTURES: This product may be tank-mixed with the following products and applied postemergence (in-crop) over the top of Roundup Ready 2 Yield or glyphosate resistant soybean. Ensure that the product used is labeled for application postemergence (in-crop) to soybean. Read and follow label directions for all products in the tank mixture.

Acetochlor	Fenoxaprop-p-ethyl	Imazethapyr
Acifluorfen	Fluazifop-p-butyl	Lactofen
Bentazon	Flumiclorac pentyl ester	Pendimethalin
Chlorimuron ethyl	Fluthiacet-methyl	Quizalofop-P-ethyl
Clethodim	Fomesafen	Sethoxydim
Clorasulam-methyl	Imazamox	Thifensulfuron-methyl

PRECAUTIONS: In some cases, these tank-mix products will cause visual soybean injury.

RESTRICTIONS: The combined total application of this product from crop emergence through harvest must not exceed 72 fluid ounces (2.25 lb ae) per acre. The maximum rate for any single in-crop application is 48 fluid ounces (1.50 lb ae) per acre. The maximum combined total amount of this product that may be applied during flowering (R2 stage soybean) is 48 fluid ounces (1.50 lb ae) per acre.

#### Preharvest

USE INSTRUCTIONS: Up to 24 fluid ounces (0.75 lb ae) of this product per acre may be applied to Roundup Ready 2 Yield or glyphosate resistant soybean for weed control prior to harvest after pods have set and lost all green color. Take care to avoid excessive seed shatter loss due to ground application equipment.

RESTRICTIONS: **Preharvest Interval (PHI):** 14 days after treatment or feeding soybean grain, forage or hay.

#### Post-Harvest

USE INSTRUCTIONS: This product may be applied for weed control after harvest of Roundup Ready 2 Yield or glyphosate resistant soybean. Higher rates might be needed for control of large weeds that were growing in the field at the time of harvest. Tank mixtures with 2,4-D or Dicamba may be used. Ensure that the product used is labeled for weed control application after harvest of soybean. Read and follow label directions for all products in the tank mixture.

RESTRICTIONS: Application of this product must be made a minimum of 30 days prior to the planting of any crop not listed on this label.

#### Roundup Ready or Glyphosate Resistant Sugarbeet

TYPES OF APPLICATION: Preplant; At-Planting; Preemergence; Postemergence (In-crop)

USE INSTRUCTIONS: Refer to the following table for maximum application rates of this product with Roundup Ready or glyphosate resistant sugarbeet.

Maximum Application Rates Per Acre	
Combined total per year for all applications	6 quarts (6.0 lb ae)
Total for all Preplant, At-Planting, Preemergence applications	3.8 quarts (3.8 lb ae)
Maximum single application rate from emergence to 8-leaf stage	36 fluid ounces (1.13 lb ae)
Total for all applications made from emergence to 8-leaf stage	63 fluid ounces (1.97 lb ae)
Maximum single application rate between 8-leaf stage and canopy closure	24 fluid ounces (0.75 lb ae)
Total for all applications made between 8-leaf stage and canopy closure	48 fluid ounces (1.50 lb ae)

See the "ROUNDUP READY OR GLYPHOSATE RESISTANT CROPS" section of this label for information regarding the use of this product in Roundup Ready or glyphosate resistant crops. See the "PRODUCT INFORMATION" section of this label for more information on Maximum Application Rates.

#### Preplant, At-Planting, Preemergence

USE INSTRUCTIONS: This product may be applied before, during or after planting Roundup Ready or glyphosate resistant sugarbeet.

TANK MIXTURES: This product may be tank-mixed with the following products and applied prior to crop emergence. Ensure that the product used is labeled for application prior to emergence of sugarbeet. Read and follow label directions for all products in the tank mixture.

Ethofumesate

RESTRICTIONS: Maximum quantity of this product that may be applied for all preplant, at-planting and preemergence applications combined is 3.8 quarts (3.8 lb ae) per acre per year.

#### Postemergence (In-crop)

USE INSTRUCTIONS: This product may be applied over the top of Roundup Ready or glyphosate resistant sugarbeet for control of annual grasses and broadleaf weeds from emergence to 30 days prior to harvest. To maximize yield potential, eliminate competing weeds early. Up to 4 applications of this product may be made with a minimum of 10 days between each application. This product will control or suppress most perennial weeds. For some perennial weeds, more than one application might be needed to eliminate crop competition throughout the growing season. Refer to the "ANNUAL WEEDS RATE SECTION" and "PERENNIAL WEEDS RATE SECTION" of this label for application rates for specific weeds.

**TANK MIXTURES:** This product may be tank-mixed with the following products and applied postemergence (in-crop) over the top of Roundup Ready or glyphosate resistant sugarcorn. Ensure that the product used is labeled for application postemergence (in-crop) to sugarcorn. Read and follow label directions for all products in the tank mixture.

Clethodim	Dimethenamid-p	Phenmedipham
Clopyralid	Ethofumesate	Quizalofop-p-ethyl
Desmedipham	S-metolachlor	Triflurosulfuron methyl

**PRECAUTIONS:** Desmedipham, Ethofumesate and Phenmedipham can cause significant sugarcorn injury. Refer to these product labels for crop injury precautions.

**RESTRICTIONS:** The combined total application of this product from crop emergence through harvest must not exceed 3.5 quarts (3.5 lb ae) per acre. The maximum rate for any single application from crop emergence until the 8-leaf stage is 36 fluid ounces (0.1.13 lb ae) per acre. The maximum rate for any single application between the 8-leaf stage and canopy closure is 24 fluid ounces (0.75 lb ae) per acre. **Preharvest Interval (PHI):** 30 days after treatment.

### **FARMSTEAD USE**

**TYPES OF USES:** Farmstead Weed Control; Trim-and-Edge; Greenhouse/Shadehouse; Chemical Mowing; Cut Stump Application; Habitat Management

**USE INSTRUCTIONS:** Refer to the "ANNUAL WEEDS RATE SECTION" and "PERENNIAL WEEDS RATE SECTION" of this label for application rates for specific weeds. When applied as directed, this product will control those annual and perennial grasses and broadleaf weeds. Application rates of this product specified in the following sections, or on separate supplemental labeling for this product, for hard-to-control weeds supersede rates in the "ANNUAL WEEDS RATE SECTION" and "PERENNIAL WEEDS RATE SECTION" of this label.

### **Farmstead Weed Control, Trim-and-Edge**

**USE INSTRUCTIONS:** This product may be used to control annual and perennial weeds, woody brush, trees and vines found on any part of the farmstead, including around building foundations and equipment storage areas, along and in fences, in dry ditches and canals, along ditch banks, driveways, farm roads, farmyards, fencerows, parking areas, rangeland, rights-of-way, shelterbelts, storage areas and prior to planting landscape ornamentals.

**TANK MIXTURES:** This product may be tank-mixed with the following products, provided that the product used is labeled for these sites and uses. Refer to each individual product label for approved sites and application rates. Read and follow label directions for all products in the tank mixture.

2,4-D	Imazapic	Pendimethalin
Bromacil	Imazapyr	Proflamline
Chlorosulfuron	Metsulfuron-methyl	Simazine
Dicamba	Oryzalin	Sulfometuron-methyl
Diuron	Oxadiazon	Pendimethalin

For annual weeds, apply 24 fluid ounces (0.75 lb ae) of this product per acre when weeds are less than 6 inches tall, 36 fluid ounces (1.13 lb ae) when weeds are 6 to 12 inches tall and 48 fluid ounces (1.50 lb ae) when weeds are greater than 12 inches tall. For perennial weeds, apply 48 fluid ounces to 3.8 quarts (1.50 – 3.8 lb ae) per acre in a tank-mix with one of the products listed here. For application of tank mixtures using a backpack sprayer, handgun or other handheld applicator, see the "ANNUAL WEEDS RATE SECTION" and "PERENNIAL WEEDS RATE SECTION" of this label for the required concentration of this product in the mix.

### **Greenhouse/Shadehouse**

**USE INSTRUCTIONS:** This product may be used to control weeds in and around greenhouses and shadehouses.

**PRECAUTIONS:** Remove desirable vegetation before applying this product inside a greenhouse or shadehouse.

**RESTRICTIONS:** Turn air circulation fans off when applying this product inside a greenhouse or shadehouse and leave them off until the application solution has dried. **DO NOT** use this product inside residential greenhouses.

### **Chemical Mowing**

**USE INSTRUCTIONS:** This product may be used to suppress growth of perennial grasses listed in this section along farm ditches and on any other part of the farmstead to serve as a substitute for mowing. Apply 4.5 fluid ounces (0.14 lb ae) of this product per acre to suppress Kentucky bluegrass; 6 fluid ounces (0.19 lb ae) to suppress tall fescue, fine fescue, orchardgrass, bahiagrass or quackgrass covers; 12 fluid ounces (0.38 lb ae) to suppress bermudagrass; or 48 fluid ounces (1.50 lb ae) to suppress torpedograss or para grass. Make all applications in 10 to 20 gallons of spray solution per acre.

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

### **Cut Stump Application**

**TYPES OF USES:** Treating brush and tree stumps on any terrestrial site

**USE INSTRUCTIONS:** This product may be used to control re-growth and re-sprouting of many species of woody brush and trees. Cut the woody brush or tree close to the soil surface and immediately apply a 50- to 100-percent (undiluted) solution of this product to the freshly cut surface using application equipment capable of covering the entire cambium. A delay in application could result in reduced performance. For enhanced results, cut the woody brush or tree during period of active growth and full leaf expansion and apply this product. Some of the species controlled by this method of application of this product are:

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

**PRECAUTIONS:** Injury resulting from root grafting may occur in adjacent trees. Some sprouts, stems, or trees can share a common root system. Adjacent trees having a similar age, height and spacing could be an indicator of a shared root system. Whether grafted or shared, injury is likely to occur to adjacent stems or trees when this product is applied to one or more trees sharing a common root system.

**RESTRICTION: DO NOT** make a cut stump application when the roots of adjacent desirable trees might be grafted to the roots of the cut stump.

### **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. Application may be made to allow recovery of native plant species or prior to planting desirable native species, and for similar broad-spectrum vegetation control in habitat management areas. Spot treatment may be used to selectively remove unwanted plants for habitat maintenance and enhancement.

### **Wildlife Food Plots**

**USE INSTRUCTIONS:** This product may be used to eliminate annual and perennial weeds prior to planting wildlife food plots. Any wildlife food species may be planted after applying this product or native species may be allowed to repopulate the area. If tillage is needed to prepare a seedbed, wait a minimum of 7 days after application before tilling.

**RESTRICTIONS:** There are no rotational restrictions for planting any wildlife food species or for allowing native species to repopulate the area following application of this product.

## ANNUAL WEEDS RATE SECTION

When water carrier volumes are between 16 and 40 gallons per acre for ground application, and between 6 and 15 gallons per acre for aerial application, and contain 0.5% or more of a non-ionic surfactant labeled for use with herbicides, the following use rates will control the annual weeds listed in the "ANNUAL WEEDS RATE TABLE" that follows.

- 24 fluid ounces (0.75 lb ae) per acre – grasses and broadleaf annual weeds less than 6 inches in height or circumference, and vines less than 3 inches in length
- 36 fluid ounces (1.13 lb ae) per acre – grasses and broadleaf annual weeds 6 to 12 inches in height or circumference, and vines 3 to 6 inches in length
- 48 fluid ounces (1.50 lb ae) per acre – grasses and broadleaf annual weeds greater than 12 inches in height or circumference, and vines greater than 6 inches in length

When water carrier volumes are between 3 and 15 gallons per acre for ground application, and between 3 and 5 gallons per acre for aerial application, use the rates specified for individual weeds as follows in the "annual weeds rate table."

Apply to actively growing annual weeds. New leaf development indicates active growth.

Annual weeds are often easiest to control when they are small. Control of older, mature (hardened) or otherwise hard-to-control annual weed species could require higher application rates than specified in this table, even if they meet the size requirements listed. This product may be applied at rates of up to 48 fluid ounces (1.50 lb ae) per acre for hard-to-control annual weeds and where dense weed populations exist. Follow all precautions and restrictions, including maximum application rates and crop stage timings specified in the directions for use on specific crops, including Roundup Ready or glyphosate resistant crops, and use sites listed on this label.

Maximum size refers to the maximum plant height, length of runners for vines, or circumference of rosette plants in inches.

**DO NOT** tank-mix this product with soil residual herbicides when applying at these rates, unless otherwise directed.

For control of annual weeds using a handheld controlled droplet applicator (CDA), apply a 20-percent solution of this product (25 to 26 fluid ounces (0.78 – 0.81 lb ae) of this product per gallon of spray solution) at a flow rate of 2 fluid ounces per minute and a walking speed of 1.5 miles per hour (1 quart per acre). When using a vehicle-mounted CDA, apply the required amount of this product, as indicated in the following table, in 2 to 15 gallons of water per acre.

For weeds that have been mowed, grazed or cut, allow re-growth to occur prior to application of this product.

**ANNUAL WEEDS RATE TABLE**

Weed Species	Broadcast Application Rate (fluid ounces per acre)				
	12	18	24	30	36
	Maximum Height/Length (inches)				
Ammannia, purple	3	6	12	-	18
Anoda, spurred	-	2	3	5	8
Barley	18	18+	-	-	-
Barnyardgrass	-	3	6	7	9
Bassia, fivehook	-	-	6	-	-
Beggarweed, Florida	-	5	8	-	-
Bittercress	12	20	-	-	-
Bluegrass, annual	10	-	-	-	-
Bluegrass, bulbous	6	-	-	-	-
Brome, downy <sup>1,2</sup>	6	12	-	-	-

Weed Species	Broadcast Application Rate (fluid ounces per acre)				
	12	18	24	30	36
	Maximum Height/Length (inches)				
Brome, Japanese	6	12	24	-	-
Browntop panicum	6	8	12	-	24
Buckwheat, wild <sup>3</sup>	-	1	2	-	-
Burcucumber	-	6	12	-	18
Buttercup	12	20	-	-	-
Carolina geranium	-	-	4	-	9
Carpetweed	-	6	12	-	-
Cheat <sup>2</sup>	6	20	-	-	-
Chervil	20	-	-	-	-
Chickweed	-	12	18	-	-
Cocklebur	12	18	24	-	36
Copperleaf, hophornbeam	-	2	4	-	6
Copperleaf, Virginia	-	2	4	-	6
Coreopsis, plains	-	6	12	-	18
Corn, volunteer	6	12	20	-	-
Corn speedwell	12	-	-	-	-
Crabgrass	3	6	12	-	-
Crowfootgrass	-	-	6	-	12
Cutleaf evening primrose	-	-	3	-	6
Devilsclaw (unicorn plant)	-	3	6	-	-
Dwarf dandelion	12	-	-	-	-
Eastern mannagrass	8	12	-	-	-
Eclipta	-	4	8	12	-
Fall panicum	4	-	6	-	12
False dandelion	-	20	-	-	-
Falseflax, smallseed	12	-	-	-	-
Fiddleneck	-	6	12	-	-
Field pennycress	6	12	-	-	-
Filaree	-	-	6	-	12
Fleabane, annual	6	20	-	-	-
Fleabane, hairy* ( <i>Conyza bonariensis</i> )	-	-	6	-	10
Fleabane, rough	3	6	12	-	-
Florida pusley	-	-	4	-	6
Foxtail; giant, bristly, yellow	6	12	20	-	-
Foxtail, Carolina	10	-	-	-	-
Foxtail, green	12	-	-	-	-
Goatgrass, jointed	6	12	-	-	-
Goosegrass*	-	3	6	-	12
Grain sorghum (milo)	6	12	20	-	-
Groundcherry	-	3	6	-	9
Groundsel; common, cressleaf	-	6	10	-	-

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Weed Species	Broadcast Application Rate (fluid ounces per acre)				
	12	18	24	30	36
	Maximum Height/Length (inches)				
Hemp sesbania	-	2	4	6	8
Henbit	-	-	6	-	12
Horseweed / Marestalk* ( <i>Conyza canadensis</i> )	-	6	12	-	18
Itchgrass	6	8	12	-	18
Jimsonweed	-	-	12	-	18
Johnsongrass, seedling*	6	12	18	-	24
Junglerice*	-	3	6	7	9
Knotweed	-	-	6	-	12
Kochia* 4	-	3 to 6	12	-	-
Lambsquarters	-	6	12	-	20
Little barley	6	12	-	-	-
London rocket	6	-	24	-	-
Mayweed	-	2	6	12	18
Morning glory, annual ( <i>Ipomoea</i> spp)	-	-	3	-	6
Mustard; blue, tansy, tumble, wild	6	12	18	-	-
Nightshade; black, hairy	-	4	6	-	12
Oats	3	6	18	-	-
Pigweed, Palmer*	-	12	18	24	-
Pigweed species*	-	12	18	24	-
Prickly lettuce	-	6	12	-	-
Purslane	-	-	3	-	6
Ragweed; common,* giant*	-	6	12	-	18
Red rice	-	-	4	-	-
Rye, volunteer/cereal 2	6	18	18 +	-	-
Ryegrass species*	-	6	6	-	12
Sandbur, field	6	12	-	-	-
Sandbur, longspine	6	12	-	-	-
Shattercane	6	12	20	-	-
Shepherd's-purse	6	12	-	-	-
Sicklepod	-	2	4	-	8
Signalgrass, broadleaf	-	3	6	7	9
Smartweed, ladythumb	-	-	6	-	9
Smartweed, Pennsylvania	-	-	6	-	9
Sowthistle, annual	-	-	6	-	12
Spanish needles	-	-	6	-	12
Speedwell, purslane	12	-	-	-	-
Sprangletop	6	12	20	-	-
Spurge; prostrate, spotted	-	6	12	-	-
Spurry, umbrella	6	-	-	-	-
Stinkgrass	-	12	-	-	-
Sunflower	12	18	-	-	-

Weed Species	Broadcast Application Rate (fluid ounces per acre)				
	12	18	24	30	36
	Maximum Height/Length (inches)				
Swinecress	-	5	12	-	-
Teaweed/ Prickly sida	-	2	4	-	6
Texas panicum	6	8	12	-	24
Thistle, Russian* 5	-	6	12	-	-
Velvetleaf	-	-	6	-	12
Virginia pepperweed	-	18	-	-	-
Waterhemp*	-	-	6	-	12
Wheat 2	6	12	18	-	-
Wheat (overwintered)	-	6	12	-	18
Wild oats	3	6	18	-	-
Wild proso millet	-	6	12	-	18
Witchgrass	-	12	-	-	-
Woolly cupgrass	-	6	12	-	-
Yellow rocket	-	12	20	-	-

1 For control of downy brome in no-till systems, apply 18 fluid ounces (0.56 lb ae) of this product per acre.

2 Performance of this product can be enhanced if application is made before this weed reaches the boot stage of growth.

3 Apply 18 fluid ounces (0.56 lb ae) of this product per acre to control wild buckwheat in the cotyledon to 2-leaf stage. Apply 24 fluid ounces (0.75 lb ae) per acre to control 2- to 4-leaf wild buckwheat. For enhanced control of wild buckwheat over 2 inches in size, make sequential applications of 24 fluid ounces (0.75 lb ae) followed by 24 fluid ounces (0.75 lb ae) of this product per acre.

4 **DO NOT** apply when kochia is in the button stage.

5 Control of Russian thistle can vary based on environmental conditions and spray coverage. If possible, apply this product in a tank mixture with 2,4-D, as described in the following section, to improve control.

\* A glyphosate-resistant biotype has been confirmed. For additional information, refer to the "WEED RESISTANCE MANAGEMENT" section of this label. You can also visit on the Internet, [www.weedsience.org](http://www.weedsience.org) or [www.weedresistancemanagement.com](http://www.weedresistancemanagement.com), or contact your INNVICTIS CROP CARE, LLC representative.

#### Annual Weed - Tank Mixtures with 2,4-D, Dicamba or Picloram

Enhanced control of certain hard-to-control weeds can be achieved by tank-mixing this product with Dicamba, 2,4-D or Picloram. An appropriate rate of these other herbicides combined with the rate of this product specified in the "ANNUAL WEEDS RATE TABLE" will control the following weeds up to the maximum height or length indicated: 6 inches - prickly lettuce, marestalk/horseweed, morning glory, kochia (in a tank-mix with Dicamba only), wild buckwheat (in a tank-mix with Picloram only); 12 inches - cocklebur, lambsquarters, pigweed, Russian thistle (in a tank-mix with 2,4-D only).

At application rates given in the "ANNUAL WEEDS RATE SECTION," this product will control the following weeds up to a maximum height or length of 6 inches: common ragweed, giant ragweed, Pennsylvania smartweed, and velvetleaf. For enhanced control of these weeds, apply this product in a tank-mix with 2,4-D.

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

PRECAUTIONS: Some crop injury could occur if Dicamba or Picloram is applied within 45 days of planting.

RESTRICTIONS: **DO NOT** apply dicamba tank mixtures by air in California.

#### Annual Weeds - Handheld Sprayers

For control of weeds listed in the "ANNUAL WEEDS RATE TABLE," apply a 0.5-percent solution of this product to weeds less than 6 inches in height or runner length prior to seedhead formation in grasses or bud formation in broadleaf weeds. For control of annual weeds over 6 inches tall, or unless otherwise directed, use a 0.75-percent solution.

For enhanced results on hard-to-control perennials, such as bermudagrass, dock, field bindweed, hemp dogbane, milkweed and Canada thistle, apply a 1.7-percent solution of this product.

When using application methods that result in less than complete coverage, apply a 5-percent solution of this product for control of annual and perennial weeds, and a 5- to 8-percent solution for control of woody brush, trees and vines.

#### Annual Weeds - Tank Mixtures for Fallow and Reduced Tillage Systems

For use only in Colorado, Kansas, Nebraska, Oklahoma, Oregon, South Dakota, and Washington.

Application of 18 to 23 fluid ounces (0.56 – 0.72 lb ae) of this product per acre in a tank mixture with Atrazine will provide enhanced control of the following weeds: barnyardgrass (requires 23 fluid ounces (0.72 lb ae) of this product per acre for control), downy brome, green foxtail, lambsquarters, prickly lettuce, tansy mustard, pigweed, field sandbur, stinkgrass, Russian thistle, volunteer wheat and witchgrass. For control of Kochia, apply 16 to 20 fluid ounces (0.63 lb ae) of this product in a tank-mix with Atrazine and Dicamba. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

RESTRICTIONS: In Oregon and Washington, **DO NOT** exceed 1 pound of atrazine per acre.

#### PERENNIAL WEEDS RATE SECTION

Apply this product to actively growing perennial weeds. New leaf development indicates active growth. Enhanced results can be obtained when soil moisture is adequate for active weed growth.

If weeds have been recently mowed or tilled, **DO NOT** apply this product until plants have resumed active growth and have reached the specified stage of growth or sufficient growth has been achieved to allow for good interception of the spray solution. For enhanced control, **DO NOT** mow, cut, till, burn or disturb vegetation in the application area for a minimum of 7 days after application.

For control of perennial weeds using a handheld controlled droplet applicator (CDA), apply a 20- to 40-percent solution of this product (25 to 51 fluid ounces (0.66 – 1.59 lb ae) per gallon of applicator solution) at a flow rate of 2 fluid ounces per minute and a walking speed of 0.75 mile per hour (3 to 6 pints per acre). When using a vehicle-mounted CDA, apply the appropriate amount of this product, as indicated in the following rate table, in 2 to 15 gallons of water per acre.

This product has no soil activity and does not control emergence of perennial weeds from seed and dormant underground roots, rhizomes or tubers present in the soil at the time of application. More than one application of this product might be necessary to control weeds regenerating from underground parts or seed, but must be made prior to crop emergence, except where in-crop application is allowed.

Application of this product in the fall must be made before a killing frost.

RESTRICTIONS: Unless otherwise directed, allow a minimum of 7 days after application before soil tillage.

#### PERENNIAL WEEDS RATE TABLE

Weed Species	Broadcast Rate (quarts/acre)	Water Volume (gallons/acre)	Handheld Sprayer Concentration (% solution)
<b>Alfalfa</b>	1 – 1.7	3 – 10	1.5%
Apply after the last hay cutting in the fall and alfalfa has re-grown to a height of 6 to 8 inches or more. Follow with deep tillage after a minimum of 7 days after application, but before soil freeze-up.			
<b>Alligatorweed</b>	3.5	3 – 20	1.25%
For partial control, apply this product when most target plants are in bloom. More than one application will be needed to achieve control.			
<b>Anise (fennel) <sup>1</sup></b>	—	—	1 – 1.5%
<b>Bahiagrass <sup>2</sup></b>	2.3 – 3.8	3 – 20	1.5%
<b>Bentgrass</b>	1.1	10 – 20	1.5%
For suppression in grass seed production areas using ground application equipment only. Ensure entire crown area has resumed growth prior to application in the fall. Ensure that bentgrass has at least 3 inches of growth before application. Avoid tillage prior to application. Tillage 7 to 10 days after application provides enhanced results.			
<b>Bermudagrass</b>	2.3 – 3.8	3 – 20	1.5%
For control, apply 3.75 quarts of this product per acre. For partial control, apply 2.25 quarts per acre. Treat when bermudagrass is actively growing and seedheads are present. More than one application might be necessary to achieve control.			
<b>Bermudagrass, water (knotgrass)</b>	0.75 – 1.12	5 – 10	1.5%
Apply 36 fluid ounces of this product in 5 to 10 gallons of water per acre when water bermudagrass is 12 to 18 inches in length. Allow a minimum of 7 days after application before tilling, flushing or flooding the field.			
For fall application, till fallow fields and apply 24 fluid ounces of this product in 5 to 10 gallons of water per acre prior to frost and when water bermudagrass is 12 to 18 inches in length. This product is not registered in California for control of water bermudagrass.			
<b>Bindweed, field</b>	0.5 – 3.8	3 – 20	1.5%
<b>DO NOT</b> apply this product when field bindweed is under drought stress, as good soil moisture is necessary for active growth and efficacy of this product.			
For control, apply 3 to 3.8 quarts of this product per acre west of the Mississippi River and 2.3 to 3 quarts per acre east of the Mississippi River when bindweed is at or beyond full bloom. For enhanced results, apply in late-summer or fall. Fall application must be made before a killing frost.			
Also, for control, apply 48 fluid ounces of this product plus an appropriate rate of dicamba in 10 to 20 gallons of water per acre. <b>DO NOT</b> apply this mixture using aerial application equipment.			
For suppression of field bindweed on irrigated agricultural land, apply 24 to 48 fluid ounces of this product plus an appropriate rate of 2.4-D in 10 to 20 gallons of water per acre using ground application equipment only. Application may be made following harvest or on fallow ground in the fall when bindweed is actively growing and the majority of runners are 12 inches or more in length. Irrigate at least once to promote active bindweed growth.			
For suppression, apply 12 fluid ounces of this product plus a rate of 2.4-D that will provide suppression of field bindweed in 3 to 10 gallons of water per acre using ground application equipment, or in 3 to 5 gallons of water per acre using aerial application equipment.			
Application of this tank-mix using aerial equipment is only allowed on fallow fields and in reduced tillage systems. Delay application until maximum bindweed emergence has occurred and vines are 6 to 18 inches in length.			
<b>In California only</b> , apply 24 fluid ounces to 3.8 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 24 fluid ounces of this product in 3 to 10 gallons of water per acre when bindweed has reached a length of 12 inches or more. Allow maximum bindweed emergence and runner growth before applying this product. Allow a minimum of 3 days after application before tillage.			

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Weed Species	Broadcast Rate (quarts/acre)	Water Volume (gallons/acre)	Handheld Sprayer Concentration (% solution)
<b>Bluegrass, Kentucky</b>	0.8 – 1.7	3 – 40	1.5%
Apply 48 fluid ounces 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 24 to 36 fluid ounces of this product in 3 to 10 gallons of water per acre to actively growing target plants when most have reached 4 to 12 inches in height.			
<b>Blueweed, Texas</b>	2.3 – 3.8	3 – 40	1.5%
Apply 3 to 3.8 quarts of this product per acre west of the Mississippi River or 2.3 to 3 quarts per acre east of the Mississippi River when plants are at or beyond full bloom. For enhanced results, apply in late-summer or fall. Fall application must be made before a killing frost.			
<b>Brackenfern</b>	2.3 – 3.4	3 – 40	1 – 1.5%
Make application to fully expanded fronds that are at least 18 inches long.			
<b>Bromegrass, smooth</b>	0.8 – 1.7	3 – 40	1.5%
Apply 48 fluid ounces of this product in 10 to 40 gallons of water per acre when most target plants have reached boot to early-seedhead stage of development. For partial control in pasture or hay crop renovation, apply 24 to 36 fluid ounces of this product in 3 to 10 gallons of water per acre to actively growing bromegrass when it has reached a height of 4 to 12 inches.			
<b>Bursage, woolly-leaf</b>	–	3 – 20	1.5%
For control, apply 48 fluid ounces of this product plus labeled rate of dicamba per acre. For partial control, apply 24 fluid ounces of this product plus labeled rate of dicamba per acre. Apply when plants are producing new active growth that has been initiated by moisture for at least 2 weeks and are at or beyond flowering.			
<b>Canarygrass, reed <sup>2</sup></b>	1.7 – 2.3	3 – 40	1.5%
<b>Cattail <sup>2</sup></b>	2.3 – 3.8	3 – 40	1.5%
<b>Clover, red, white <sup>1</sup></b>	2.2 – 3.8	3 – 20	1.5%
Also for control, apply 12 to 24 fluid ounces of this product in a tank-mix with an appropriate rate of 2,4-D in 3 to 10 gallons of water per acre.			
<b>Cogongrass</b>	2.3 – 3.8	10 – 40	1.5%
Apply in late-summer or fall when cogongrass is at least 18 inches tall. Due to uneven stages of growth and the dense nature of this vegetation preventing good spray coverage, more than one application might be necessary to achieve control.			
<b>Dallisgrass <sup>2</sup></b>	2.3 – 3.8	3 – 20	1.5%
<b>Dandelion <sup>1</sup></b>	2.3 – 3.8	3 – 40	1.5%
Also for control, apply 12 fluid ounces of this product in a tank-mix with an appropriate rate of 2,4-D in 3 to 10 gallons of water per acre.			
<b>Dock, curly <sup>1</sup></b>	2.3 – 3.8	3 – 40	1.5%
Also for control, apply 12 to 24 fluid ounces of this product in a tank-mix with an appropriate rate of 2,4-D in 3 to 10 gallons of water per acre.			
<b>Dogbane, hemp</b>	3.4	3 – 40	1.5%
Apply when most target plants have reached the late-bud to flower stage of development. Allow weeds to re-grow to a mature stage prior to application of this product after crop harvest or mowing. For enhanced results, apply in late-summer or fall.			
For suppression, apply 12 fluid ounces of this product in a tank-mix with an appropriate rate of 2,4-D in 3 to 10 gallons of water per acre using ground application equipment, and in 3 to 5 gallons of water per acre using aerial application equipment. Delay application until maximum emergence of hemp dogbane has occurred.			

Weed Species	Broadcast Rate (quarts/acre)	Water Volume (gallons/acre)	Handheld Sprayer Concentration (% solution)
<b>Fescue (except tall) <sup>2</sup></b>	2.3 – 3.8	3 – 20	1.5%
<b>Fescue, tall</b>	0.8 – 2.3	3 – 40	1.5%
Apply 72 fluid ounces of this product per acre when most tall fescue has reached boot to early-seedhead stage of development.			
For fall application, apply 24 fluid ounces of this product in 3 to 10 gallons of water per acre when plants have 6 to 12 inches of new growth. A sequential application of 12 fluid ounces of this product per acre will improve long-term control and will control seedlings germinating after fall application or in the following spring.			
<b>Guineagrass</b>	1.7 – 2.3	3 – 40	1%
Apply when most target plants have reached the 7-leaf stage of growth. Ensure thorough coverage when using a handheld sprayer. In Texas and the ridge of Florida, apply 48 fluid ounces of this product per acre for control. In the flatwoods region of Florida, 72 fluid ounces per acre is needed for control.			
<b>Horsenettle <sup>1</sup></b>	2.3 – 3.8	3 – 20	1.5%
<b>Horseradish</b>	3.4	3 – 40	1.5%
Apply when most plants have reached the late-bud to flower stage of growth. For enhanced results, apply in late-summer or fall.			
<b>Iceplant <sup>1</sup></b>	–	–	1.5 - 2%
Thorough coverage of the target weed with this product will provide enhanced control.			
<b>Jerusalem artichoke <sup>1</sup></b>	2.3 – 3.8	3 – 20	1.5%
<b>Johnsongrass</b>	0.5 – 2.3	3 – 40	1%
In annual cropping systems, apply 24 to 48 fluid ounces of this product in 3 to 10 gallons of water per acre. Use 48 fluid ounces of this product when applying in 10 to 40 gallons of water per acre. On non-crop sites or in areas where annual tillage is not practiced (no-till), apply 48 to 72 fluid ounces of this product in 10 to 40 gallons of water per acre. For enhanced results, apply when most johnsongrass has reached the boot to head stage of development or in the fall prior to frost. Allow a minimum of 7 days after application before tillage. <b>DO NOT</b> tank-mix with residual herbicides when applying 24 fluid ounces of this product per acre.			
For burndown of johnsongrass, apply 12 fluid ounces of this product in 3 to 10 gallons of water per acre before plants reach a height of 12 inches and allow a minimum of 3 days after application before tillage.			
For partial control or suppression, apply a 0.75-percent solution of this product as a spot treatment when johnsongrass is 12 to 18 inches tall. Ensure that coverage is uniform and complete.			
<b>Kikuyu grass</b>	1.5 – 2.3	3 – 40	1.5%
Apply when most kikuyu grass is at least 8 inches tall (3- or 4-leaf stage of growth). Allow a minimum of 3 days after application before tillage.			
<b>Knapweed</b>	3.4	3 – 40	1.5%
Apply when most target plants have reached the late-bud to flower stage of growth. For enhanced results, apply in late-summer or fall.			
<b>Lantana</b>	–	–	1%
Apply at or beyond the bloom stage of growth.			
<b>Lespedeza <sup>1</sup></b>	2.3 – 3.8	3 – 20	1.5%
<b>Milkweed, common</b>	2.3	3 – 40	1.5%
Apply when most plants have reached the late-bud to flower stage of growth.			
<b>Muhly, wirestem</b>	0.8 – 1.7	3 – 40	1.5%

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Weed Species	Broadcast Rate (quarts/acre)	Water Volume (gallons/acre)	Handheld Sprayer Concentration (% solution)
Apply 24 fluid ounces of this product in 3 to 10 gallons of water per acre, or 48 fluid ounces when applying in 10 to 40 gallons of water per acre or whenever applying in pasture, sod, or non-crop areas, when wirestem mulch is at least 8 inches tall. <b>DO NOT</b> till the soil between harvest and fall application, or in the fall or spring prior to spring application. Allow a minimum of 3 days after application before tillage.			
<b>Mullein, common</b> <sup>1</sup>	2.3 – 3.8	3 – 20	1.5%
<b>Napiergrass</b> <sup>2</sup>	2.3 – 3.8	3 – 20	1.5%
<b>Nightshade, silverleaf</b>	1.5	3 – 10	1.5%
For enhanced results, apply when at least 60 percent of the target plants have berries. Fall application must be made before a killing frost.			
<b>Nutsedge; purple, yellow</b>	0.5 – 2.3	3 – 40	1 – 1.5%
For control of nutsedge plants and immature nutlets, apply 2.25 quarts of this product per acre or a 1- to 1.5-percent solution when plants are in flower or when new nutlets can be found at rhizome tips. Nutlets that have not germinated will not be controlled and will need repeated applications of this product after germination for long-term control. Sequential applications of 24 to 48 fluid ounces of this product in 3 to 10 gallons of water per acre when a majority of the nutsedge plants are in the 3- to 5-leaf stage (less than 6 inches tall) will also provide control. Repeat this application as necessary when newly emerging plants reach the 3- to 5-leaf stage. Subsequent applications will be necessary for long-term control.			
For partial control of existing plants, apply 12 to 48 fluid ounces of this product in 3 to 40 gallons of water per acre when plants have 3 to 5 leaves and most are less than 6 inches tall. Repeat this application as needed to control subsequent emerging plants or re-growth of existing plants.			
<b>Orchardgrass</b>	0.8 – 1.8	3 – 40	1.5%
Apply 48 fluid ounces 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 24 to 36 fluid ounces of this product in 3 to 10 gallons of water per acre when orchardgrass is actively growing and has reached 4 to 12 inches in height.			
When going from orchardgrass sod to no-till corn, apply 24 to 36 fluid ounces of this product in 3 to 10 gallons of water per acre to orchardgrass that is a minimum of 12 inches tall for spring application and 6 inches tall for fall application. Allow a minimum of 3 days after application before planting. A sequential application of atrazine will be necessary to achieve optimum results.			
<b>Pampas grass</b>	–	–	1 – 1.5%
Apply this product when pampas grass is at or beyond the boot stage of growth. Thorough coverage will provide enhanced control.			
<b>Para grass</b> <sup>2</sup>	2.3 – 3.8	3 – 20	1.5%
<b>Phragmites</b>	2.3 – 3.8	10 – 40	1 – 1.5%
For partial control and enhanced results, apply this product in late-summer or fall when plants are actively growing and in full bloom. Application before or after this stage could result in reduced control. Due to the dense nature of this vegetation (which can prevent good spray coverage) and uneven stages of growth, more than one application might be necessary to achieve control. Visual symptoms of control will be slow to develop.			
<b>Poison hemlock</b>	–	–	1 – 1.5%
Apply this product using a handheld sprayer with a spray-to-wet technique. Optimum results are obtained when thoroughly applied to target plants that are at the bud to full-bloom stage of growth.			

Weed Species	Broadcast Rate (quarts/acre)	Water Volume (gallons/acre)	Handheld Sprayer Concentration (% solution)
<b>Pokeweed, common</b>	1	3 – 40	1.5%
Apply to actively growing target plants up to 24 inches tall.			
<b>Quackgrass</b>	0.8 – 2.3	3 – 40	1.5%
In annual cropping systems or in pastures and sod fields to be cultivated with deep tillage, apply 24 fluid ounces of this product in 3 to 10 gallons of water per acre or 48 fluid ounces in 10 to 40 gallons of water per acre when quackgrass is 6 to 8 inches in height. <b>DO NOT</b> tank-mix with residual herbicides when using the 24-fluid-ounce rate. <b>DO NOT</b> till between harvest and fall application, or in the fall or spring prior to spring application. Allow a minimum of 3 days after application before tillage. In pastures or sod fields, use a moldboard plow for enhanced results.			
In pastures, sod fields or non-crop areas where deep tillage will not follow application of this product, apply 48 to 72 fluid ounces in 10 to 40 gallons of water per acre when quackgrass is greater than 8 inches tall.			
<b>Redvine</b>	0.7 – 1.7	5 – 10	1.5%
For suppression, make two applications of 18 fluid ounces of this product 7 to 14 days apart, or a single application of 48 fluid ounces, in 5 to 10 gallons of water per acre 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. Apply a minimum of 1 week before a killing frost.			
<b>Reed, giant</b>	–	–	1.5%
Enhanced results can be obtained when application is made in late-summer or fall.			
<b>Ryegrass, perennial</b>	0.8 – 2.3	3 – 40	1%
In annual cropping systems, apply 24 to 48 fluid ounces of this product in 3 to 10 gallons of water per acre, or 48 fluid ounces when applying in 10 to 40 gallons of water per acre. On non-crop sites or in fields where annual tillage is not practiced (no-till), apply 48 to 72 fluid ounces of this product in 10 to 40 gallons of water per acre.			
For enhanced results, apply when most ryegrass has reached the boot to head stage of growth or in the fall prior to frost. <b>DO NOT</b> tank-mix with residual herbicides when applying 24 fluid ounces of this product per acre.			
<b>Smartweed, swamp</b> <sup>1</sup>	2.3 – 3.8	3 – 40	1.5%
Also for control, apply 12 fluid ounces of this product in a tank-mix with an appropriate rate of 2,4-D in 3 to 10 gallons of water per acre in late-summer or fall.			
<b>Sowthistle, perennial</b>	1.7 – 2.3	3 – 40	1.5%
Apply when most plants are at or beyond the bud stage of growth. After harvest, mowing or tillage in late-summer or fall, allow a minimum of 4 weeks for initiation of active growth and rosette development prior to application of this product. Fall application must be made before a killing frost. Allow a minimum of 3 days after application before tillage.			
<b>Spurge, leafy</b>	–	3 – 10	1.5%
For suppression, apply 12 fluid ounces of this product in a tank-mix with an appropriate rate of 2,4-D in 3 to 10 gallons of water per acre in late-summer or fall. If mowing has occurred, delay application until most target plants are 12 inches tall.			
<b>Starthistle, yellow</b>	1.7	10 – 40	1.5%
Enhanced results can be obtained when application is made during the rosette, bolting or early-flower stage.			
<b>Sweet potato, wild</b>	–	–	1.5%
For partial control, apply to plants that are at or beyond the bloom stage of growth. More than one application might be needed.			

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Weed Species	Broadcast Rate (quarts/acre)	Water Volume (gallons/acre)	Handheld Sprayer Concentration (% solution)
<b>Thistle, artichoke</b>	—	—	1.5%
For partial control, apply when plants are at or beyond the bloom stage of growth. More than one application might be needed.			
<b>Thistle, Canada</b>	1.7 – 2.3	3 – 40	1.5%
Apply when most target plants are at or beyond the bud stage of development. After harvest, mowing, or tillage in late-summer or fall, allow a minimum of 4 weeks for initiation of active growth and rosette development prior to application of this product. Fall application must be made before a killing frost. For suppression in the spring, apply 24 fluid ounces of this product alone or 12 fluid ounces of this product in a tank-mix with an appropriate rate of 2.4-D in 3 to 10 gallons of water per acre when rosette is a minimum of 6 inches in diameter. Application may be made as long as leaves are still green and plants are actively growing. Allow a minimum of 3 days after application before tillage.			
<b>Timothy</b> <sup>2</sup>	1.7 – 2.3	3 – 40	1.5%
<b>Torpedograss</b>	2.8 – 3.8	3 – 40	1.5%
For partial control, apply when most target plants are at or beyond the seedhead stage of development. More than one application will be needed to achieve control. Fall application must be made before frost.			
<b>Trumpet creeper</b>	1.7	5 – 10	1.5%
For partial control, apply in late-September or October when trumpet creeper is a minimum of 18 inches tall and has been growing 45 to 60 days since the last tillage operation. Make application a minimum of 1 week before a killing frost.			
<b>Vaseygrass</b> <sup>2</sup>	2.3 – 3.8	3 – 20	1.5%
<b>Velvetgrass</b> <sup>2</sup>	2.3 – 3.8	3 – 20	1.5%
<b>Wheatgrass, western</b> <sup>2</sup>	1.7 – 2.3	3 – 40	1.5%
<sup>1</sup> Apply when most plants have reached the early-bud stage of growth. <sup>2</sup> Apply when most plants have reached the early-heading stage of growth.			

#### WOODY BRUSH, TREES AND VINES RATE SECTION

Apply this product during full leaf expansion, unless otherwise directed. Use a higher application rate or spray solution concentration within a given range for larger plants or in areas of dense vegetative growth. On vines, use a higher application rate or spray solution concentration for plants that have reached the woody stage. Enhanced results can be obtained when application is made in late-summer or fall after fruit formation.

In arid areas, enhanced results can be obtained when application is made in the spring to early-summer when brush species are at high moisture content and flowering.

Unless otherwise directed, make broadcast applications in 3 to 40 gallons of water per acre. Ensure thorough coverage when using handheld sprayers. Herbicidal symptoms might not appear prior to frost or senescence following application in the fall.

Allow a minimum of 7 days after application before tillage, mowing or removal of vegetation in the application area. Repeat applications might be necessary to control plants regenerating from underground parts or seed. Some autumn color on undesirable deciduous species is acceptable when applying this product, provided no major leaf drop has occurred. Reduced performance could result if fall application is made after a frost.

WOODY BRUSH, TREES AND VINES RATE TABLE

Species	Broadcast Rate (quarts/acre)	Handheld Sprayer Concentration (% solution)
<b>Alder</b>	2.3 – 3.4	1%
<b>Ash</b> <sup>1</sup>	1.7 – 3.8	1 – 1.5%
<b>Aspen, quaking</b>	1.7 – 2.3	1%
<b>Bearmat (Bearclover)</b> <sup>1</sup>	1.7 – 3.8	1 – 1.5%
<b>Beech</b> <sup>1</sup>	1.7 – 3.8	1 – 1.5%
<b>Birch</b>	1.7 – 2.3	1%
<b>Blackberry</b>	2.3 – 3.4	1%
Apply after target plants have reached full leaf maturity. Enhanced results can be obtained when application is made in late-summer or fall. Apply a 0.7-percent solution of this product after berries have set or dropped in late-fall. After leaf drop and until a killing frost or as long as stems are green, apply 2.3 to 3 quarts of this product in 10 to 40 gallons of water per acre.		
<b>Blackgum</b>	1.7 – 3.8	1 – 1.5%
<b>Bracken</b>	1.7 – 3.8	1 – 1.5%
<b>Broom; French, Scotch</b>	—	1 – 1.5%
<b>Buckwheat, California</b> <sup>1,2</sup>	—	1 – 1.5%
<b>Cascara</b> <sup>1</sup>	1.7 – 3.8	1 – 1.5%
<b>Catsclaw</b> <sup>1</sup>	—	1%
<b>Ceanothus</b> <sup>1</sup>	1.7 – 3.8	1 – 1.5%
<b>Chamise</b> <sup>2</sup>	—	1%
<b>Cherry; bitter, black, pin</b>	1.7 – 2.3	1%
<b>Coyote brush</b>	—	1 – 1.5%
Apply when at least 50 percent of the new leaves are fully developed.		
<b>Dogwood</b> <sup>1</sup>	1.7 – 3.8	1 – 1.5%
<b>Elderberry</b>	1.7 – 2.3	1%
<b>Elm</b> <sup>1</sup>	1.7 – 3.8	1 – 1.5%
<b>Eucalyptus</b>	—	1.5%
For control of eucalyptus re-sprouts, apply when re-sprouts are 6 to 12 feet tall. Ensure complete coverage. Application to drought-stressed eucalyptus plants will result in less than optimum results.		
<b>Florida holly (Brazilian Peppertree)</b> <sup>1</sup>	1.7 – 3.8	1 – 1.5%
<b>Gorse</b> <sup>1</sup>	1.7 – 3.8	1 – 1.5%
<b>Hasardia</b> <sup>1,2</sup>	—	1 – 1.5%
<b>Hawthorn</b>	1.7 – 2.3	1%
<b>Hazel</b>	1.7 – 2.3	1%
<b>Hickory</b> <sup>1</sup>	1.7 – 3.8	1 – 1.5%
<b>Honeysuckle</b>	2.3 – 3.4	1%
<b>Hornbeam, American</b> <sup>1</sup>	1.7 – 3.8	1 – 1.5%
<b>Kudzu</b>	3 – 3.8	1.5%
More than one application might be needed to achieve control.		

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Species	Broadcast Rate (quarts/acre)	Handheld Sprayer Concentration (% solution)
<b>Locust, black</b> <sup>1</sup>	1.7 – 3.4	1 – 1.5%
<b>Madrone</b> (re-sprouts) <sup>1</sup>	—	1.5%
Apply to re-sprouts that are 3 to 6 feet tall. Enhanced results can be obtained with spring or early-summer application.		
<b>Manzanita</b> <sup>1</sup>	1.7 – 3.8	1 – 1.5%
<b>Maple, red</b>	1.7 – 3.4	1%
Apply a 1-percent solution when at least 50 percent of the new leaves are fully developed. For partial control, apply 44 to 86 fluid ounces of this product per acre.		
<b>Maple, sugar</b>	—	1%
Apply when at least 50 percent of the new leaves are fully developed.		
<b>Monkey flower</b> <sup>1,2</sup>	—	1 – 1.5%
<b>Oak; black, white</b> <sup>1</sup>	1.7 – 3.4	1 – 1.5%
<b>Oak, post</b>	2.3 – 3.4	1%
<b>Oak, northern</b>	—	1%
Apply when at least 50 percent of the new pin leaves are fully developed		
<b>Oak, southern red</b>	1.75 – 2.3	1%
<b>Persimmon</b> <sup>1</sup>	1.7 – 3.8	1 – 1.5%
<b>Pine</b>	1.7 – 3.8	1 – 1.5%
<b>Poison ivy/Poison oak</b>	2.5 – 3.8	1.5%
More than one application might be needed to achieve control. Application in the fall must be made before leaves lose green color.		
<b>Poplar, yellow</b> <sup>1</sup>	1.7 – 3.8	1 – 1.5%
<b>Redbud, eastern</b>	1.7 – 3.8	1 – 1.5%
<b>Rose, multiflora</b>	1.7	1 – 1.5%
Make application prior to leaf deterioration by leaf-eating insects.		
<b>Russian olive</b> <sup>1</sup>	1.7 – 3.8	1 – 1.5%
<b>Sage, black</b> <sup>2</sup>	—	1%
<b>Sage, white</b> <sup>1</sup>	1.7 – 3.8	1 – 1.5%
<b>Sagebrush, California</b> <sup>2</sup>	—	1%
<b>Salmonberry</b>	1.7 – 2.3	1%
<b>Saltcedar</b>	1.7 – 3.8	1 – 1.5%
<b>Sassafras</b> <sup>1</sup>	1.7 – 3.8	1 – 1.5%
<b>Sourwood</b> <sup>1</sup>	1.7 – 3.8	1 – 1.5%
<b>Sumac; poison, smooth, winged</b> <sup>1</sup>	1.7 – 3.4	1 – 1.5%
<b>Sweetgum</b>	1.7 – 2.3	1%
<b>Swordfern</b> <sup>1</sup>	1.7 – 3.8	1 – 1.5%
<b>Tallowtree, Chinese</b> <sup>2</sup>	—	1%
<b>Tan oak</b> (re-sprouts) <sup>1</sup>	—	1.5%
Apply to re-sprouts that are less than 6 feet tall. Enhanced results can be obtained following application in the fall.		
<b>Thimbleberry</b>	1.7 – 2.3	1%
<b>Tobacco, tree</b> <sup>1</sup>	—	1 – 1.5%

Species	Broadcast Rate (quarts/acre)	Handheld Sprayer Concentration (% solution)
<b>Trumpet creeper</b>	1.7 – 2.3	1%
<b>Vine maple</b> <sup>1</sup>	1.7 – 3.8	1 – 1.5%
<b>Virginia creeper</b>	1.7 – 3.8	1 – 1.5%
<b>Waxmyrtle, southern</b> <sup>1</sup>	1.7 – 3.8	1 – 1.5%
<b>Willow</b>	2.3 – 3.4	1%
<sup>1</sup> Partial Control		
<sup>2</sup> Thorough coverage of foliage is necessary for enhanced results.		

#### NONCROP TERRESTRIAL USE SITES

This product may be used according to the directions for use described on this label to control weeds, woody brush, trees and vines listed on this label on any terrestrial site described on this label.

This product may be used to control weeds, woody brush, trees and vines on maintained landscapes, on improved and unimproved land, on lawns and turf and around ornamentals on industrial, commercial and residential sites, including airports, apartment complexes, chaparrals, ditch banks, driveways, dry ditches, dry canals, farmsteads, fencerows, forestry sites, golf courses, greenhouses, lumber yards, manufacturing sites, municipal sites, natural areas, nurseries, office complexes, ornamental beds, parks, parking areas, pastures, petroleum tank farms, pumping installations, railroads, rangeland, recreational areas, residential areas, roadsides, schools, shadehouses, sod and turfgrass seed farms, sports complexes, storage areas, substations, utility rights-of-way, utility sites, warehouse areas, wildlife food plots and wildlife management areas.

This product may be used for non-selective control of unwanted vegetation on any site listed on this label for trim-and-edge application around objects, including around building foundations, equipment storage areas and trees, along and in fences, and to eliminate unwanted weeds growing in and around established shrub beds and ornamental plantings. This product may also be used for complete elimination of vegetation from a terrestrial site prior to planting ornamentals, flowers, or turfgrass (sod or seed), and prior to land development, including prior to beginning construction projects or the laying of asphalt or other road material.

This product may be used for establishment and maintenance of fuel breaks, for establishing fire perimeters and black lines, along fire roads and to facilitate prescribed burning practices on any site described on this label.

This product may also be used for weed control or growth regulation on Christmas tree farms, farmsteads, production nurseries, sod farms and turfgrass seed farms.

Unless otherwise directed, application of this product may be made according to the directions for use in the sections that follow on any of these sites using any method of application described on this label to control any weeds, woody brush, trees and vines listed in the "ANNUAL WEEDS RATE SECTION," "PERENNIAL WEEDS RATE SECTION" and "WOODY BRUSH, TREES AND VINES RATE SECTION" of this label.

RESTRICTION: Application of this product may be repeated, as needed, to maintain bare ground, up to a total application of 8 quarts (8.0 lb ae) per acre per year.

#### ADDITIONAL NONCROP SITE MANAGEMENT INFORMATION

The following sections contain additional use information specifically related to certain use sites. Unless otherwise directed, any application of this product described in the "WEEDS CONTROLLED" section or any other section of this label may be made on the use sites described in the sections that follow, where applicable, using any method of application described on this label that is appropriate.

## **Forestry, Hardwood and Christmas Tree Management**

This product may be used for control or partial control of woody brush, trees, and herbaceous weeds on any tree site, including forestry settings, Christmas tree plantations, and silvicultural and production nursery sites, using any method of application listed on this label. See the "WEEDS CONTROLLED" section of this label for application rates and specific use directions.

### **Weed Management, Site Preparation**

This product may be used to control or partially control undesirable woody brush, trees, vines and herbaceous weeds listed on this label for preparing sites prior to planting any tree species, including Christmas trees, eucalyptus trees and hybrid tree cultivars, and for controlling weeds around established trees, for the release of conifer and hardwood trees, establishing wildlife openings and maintaining roads on any tree site.

**TANK MIXTURES:** This product may be applied in a tank-mix with the products listed in this section to increase the spectrum of vegetation controlled. Any application rate of this product listed on this label may be used in a tank-mix with the following products for tree site management, including site preparation, provided that the product is labeled for the use on the site of application and prior to planting the desired species. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Imazapyr	Metsulfuron methyl	Sulfometuron methyl	Triclopyr
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For control of herbaceous weeds, apply these tank-mix products at the lower end of the application rate range specified on the product label. For control or partial control of dense stands or hard-to-control woody brush, trees and vines, apply these products at a rate or spray solution concentration towards the higher end of the given range.

### **Conifer Release, Mid-Rotation Conifer Release, Hardwood Release, Timber Stand Improvement**

This product may be applied as a directed spray using a handheld sprayer or using any selective application equipment described on this label to control woody and herbaceous weeds and other undesirable understory vegetation below the tree crop canopy in conifer plantations, hardwood sites, Christmas tree plantations and silvicultural and ornamental nurseries to facilitate the release and growth of conifer and hardwood trees.

This product may also be applied using ground broadcast equipment or as a directed spray application for mid-rotation release under the canopy of pines, other conifers and hardwoods.

**PRECAUTIONS:** Avoid contact of spray drift, mist or drips with foliage, green bark or non-woody surface roots of desirable plant species. Use application techniques that prevent or minimize contact of this product with foliage of desired trees or other plants through direct contact or off-target spray movement.

### **Conifer Release**

This product may be broadly applied over the top of conifer tree species listed in this section after formation of final conifer resting buds in the fall or prior to initial bud swelling in the spring for control or suppression of herbaceous weeds and hardwoods listed in the "WEEDS CONTROLLED" section of this label to facilitate the release of these tree species in a forestry, plantation or nursery setting. Unless otherwise directed, make this application only where conifers have been established for a minimum of one growing season.

**PRECAUTIONS:** Conifer injury can occur when this product is applied at rates higher than prescribed on this label, where spray applications overlap, if application is made when conifers are actively growing, or when they are growing under stress from drought, flood, improper planting or insect, animal or disease damage.

### **Conifer Release Outside the Southeastern United States**

For release of the following conifer species growing for a minimum of one growing season in most areas outside the southeastern United States, apply 24 to 48 fluid ounces (0.75 – 1.50 lb ae) of this product per acre as a broadcast application over the top of the conifer trees.

California redwood	Fir species	Pines*
Douglas fir	Hemlock	Spruce

\* Includes all species **except** loblolly pine, longleaf pine, shortleaf pine or slash pine.

Apply 24 to 40 fluid ounces (0.75 – 1.25 lb ae) of this product for release of Douglas fir, pine and spruce that have been established for only one growing season (except in California).

For release of spruce (*Picea* spp.) in Maine, Michigan, Minnesota, New Hampshire and Wisconsin, up to 2.3 quarts (2.3 lb ae) of this product may be applied after formation of final resting buds in the fall for control of woody brush and tree species.

**PRECAUTIONS:** Ensure that the conifers are well hardened off before application of this product. If adding surfactant to spray solutions of this product is allowed, the addition of nonionic surfactants to spray solutions of this product when making over-the-top conifer release applications could cause conifer injury.

### **Conifer Release in the Southeastern United States**

For release of the following conifer species established for more than one growing season in the southeastern United States, apply 36 to 60 fluid ounces (0.94 – 1.88 lb ae) of this product per acre in the fall as a broadcast application over the top of the trees. For release of these species after only one growing season, apply only 24 fluid ounces (0.75 lb ae) of this product per acre.

Eastern white pine	Longleaf pine	Slash pine
Loblolly pine	Shortleaf pine	Virginia pine

**TANK MIXTURES:** This product may be applied for conifer release in a tank-mix with the following products to provide a broader spectrum of postemergence weed control and for residual control of weeds listed on the label of those products. Only apply these tank mixtures over the top of conifer species that are approved for this use for all products in the mix. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Atrazine	Imazapyr	Metsulfuron methyl	Sulfometuron methyl
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For release of Douglas fir established for a minimum of one growing season prior to bud swell in early-spring, apply 24 fluid ounces (0.75 lb ae) of this product per acre in a tank-mix with an appropriate rate of Atrazine.

For herbaceous release of loblolly pine, Virginia pine and longleaf pine in the spring and early-summer, apply 12 to 18 fluid ounces (0.38 – 0.56 lb ae) of this product per acre in a tank-mix with an appropriate rate of Sulfometuron-methyl.

### **Late-Summer and Fall after Resting Bud Formation**

For release of jack pine, white spruce and white pine, apply 24 to 48 fluid ounces (0.75 – 1.50 lb ae) of this product per acre in a tank-mix with an appropriate rate of Sulfometuron-methyl that will not harm these conifer species.

For release of Douglas fir, apply 24 to 36 fluid ounces (0.75 – 1.13 lb ae) of this product per acre in a tank-mix with an appropriate rate of Imazapyr.

For release of balsam fir and red spruce, apply 48 fluid ounces (1.50 lb ae) of this product per acre in a tank-mix with an appropriate rate of Imazapyr.

### **Native and Wildlife Habitat Management**

This product may be used to control exotic and other undesirable vegetation in wildlife habitat and natural areas, including riparian and estuarine areas, rangeland and wildlife refuges. Application may be made to allow recovery of native plant species or prior to planting desirable native species, and for similar broad-spectrum vegetation control. Spot treatment, cut stump, cut stem, stem injection, wiper applicator and all other methods of application listed on this label may be used to selectively remove unwanted plants for habitat management and enhancement.

This product may also be used to eliminate annual and perennial weeds prior to planting wildlife food plots. Any wildlife food species may be planted after applying this product or native species may be allowed to repopulate the area.

**RESTRICTIONS:** If tillage is needed to prepare a seedbed, wait a minimum of 7 days after application before tillage to allow translocation of this herbicide into underground plant parts.

#### **Ornamental and Production Nursery Management**

All uses of this product described on this label may be used in a plant nursery setting using any method of application described.

This product may be used to clear an area of unwanted vegetation prior to planting any ornamental plant, tree, shrub or other plants.

This product may also be used to control weeds growing around established woody ornamental species, including arborvitae, azalea, boxwood, crabapple, eucalyptus, euonymus, fir, Douglas fir, jojoba, hollies, lilac, magnolia, maple, oak, poplar, privet, pine, spruce and yew. This product may also be used to trim and edge around potted plants and other objects in a plant nursery.

**PRECAUTIONS:** Protect desirable plants from the spray solution using shields or coverings made of waterproof material. Take care to avoid contact of spray, drift or mist with foliage, green stems or immature bark of established ornamental species.

#### **Greenhouse/Shadehouse**

This product may be used to control weeds growing in and around greenhouses and shadehouses.

**RESTRICTIONS:** Desirable vegetation must not be present during application in a greenhouse. Turn air circulation fans off before applying this product inside a greenhouse or shadehouse and leave them off until the application solution has dried.

#### **Commercial, Residential and Recreational Area Management**

All applications of this product described on this label may be used in commercial, residential and recreational areas, including parks, schools and athletic fields, using any method of application described on this label, including spot treatment of unwanted vegetation, trim-and-edge application around trees, fences, walking paths, buildings, sidewalks, nature trails and other objects in these areas, to eliminate unwanted weeds growing in established shrub and ornamental beds, for turf management and renovation, and to eliminate vegetation from a site prior to development, including prior to planting an area to ornamentals, flowers or turfgrass (sod or seed), or beginning construction projects.

#### **Pasture Management**

The use of this product in pastures includes use on bahiagrass, bermudagrass, bluegrass, brome, fescue, guinea grass, kikuyu grass, orchardgrass, pangola grass, ryegrass, Timothy, and wheatgrass.

#### **Preplant, Preemergence, Pasture Renovation**

This product may be applied prior to planting or emergence of forage or perennial grasses. Refer to the "WEEDS CONTROLLED" section of this label for application rates of this product for control of specific weeds.

**RESTRICTIONS:** If the total application rate of this product is 2.3 quarts (2.3 lb ae) per acre or less, no waiting period between application and feeding or livestock grazing is required. If the rate is greater than 2.3 quarts (2.3 lb ae) per acre, remove domestic livestock before application and wait a minimum of 8 weeks after application before grazing or harvesting.

#### **Spot Treatment, Wiper Applicator**

This product may be applied in pastures as a spot treatment or over the top of desirable grasses using a wiper applicator to control taller growing weeds. For enhanced weed control, remove domestic livestock before application to allow for sufficient plant growth and wait a minimum of 7 days after application before grazing livestock or harvesting for feed. See additional instructions on the use of wiper applicators in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label.

**RESTRICTIONS:** For spot treatment or use with a wiper applicator at rates of 2.3 quarts (2.3 lb ae) per acre or less, this product may be applied over the entire pasture or any portion of it. At rates greater than 2.3 quarts (2.3 lb ae) per acre, this product may be applied over no more than 10 percent of the total pasture at any one time. Application may be repeated in the same area at 30-day intervals.

#### **Weed Suppression in Dormant Pastures**

This product may be applied in dormant pastures to suppress competitive growth and seed production of annual weeds and other undesirable vegetation. Apply 9 to 12 fluid ounces (0.28 – 0.38 lb ae) of this product per acre using broadcast application equipment on pastures in late-fall after desirable perennial grasses have reached dormancy or in late-winter before desirable perennial grasses break dormancy and initiate green growth.

**PRECAUTIONS:** Higher application rates may be used for hard-to-control weeds; however, higher rates can cause stand reduction. Some stunting of perennial grasses can occur if broadcast application is made when they are not dormant.

**RESTRICTIONS:** No waiting period is required between application and grazing or harvesting for feed. **DO NOT** apply more than 2.3 quarts (2.3 lb ae) of this product per acre per year onto pasture grasses except for renovation. If reseeding is needed due to severe stand reduction, no waiting period is required after application of this product before seeding the pasture grasses listed at the beginning of this section; for all other pasture grasses, wait a minimum of 30 days after application before seeding.

#### **Railroad Management**

All uses of this product described in the "WEEDS CONTROLLED" or any other section of this label may be used on railroad sites using any method of application described.

Application of this product along railroad rights-of-way may be made in up to 80 gallons of spray solution per acre.

#### **Bare Ground, Ballast and Shoulders, Crossings, Spot Treatment**

This product may be used to maintain bare ground on railroad ballast and shoulders and reduce the need for mowing and mechanical brush removal along railroad rights-of-way.

**TANK MIXTURES:** This product may be applied in a tank mixture with the following products for enhanced control of woody brush and trees for bare ground, ballast and shoulder, crossing and spot treatment applications, and other brush, tree and vine control on railroad sites, provided that the product used is labeled for the application being made. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

2,4-D	Diquat	Simazine
Atrazine	Diuron	Sulfometuron methyl
Bromacil	Hexazinone	Sulfosulfuron
Chlorsulfuron	Imazapyr	Tebuthiuron
Clopyralid	Metsulfuron methyl	Triclopyr
Dicamba	Pelargonic acid	

**RESTRICTION:** Application of this product may be repeated as weeds continue to emerge in order to maintain bare ground, up to a maximum total application rate of 8 quarts (8.0 lb ae) of this product per acre per year.

#### **Brush, Tree and Vine Control**

This product may be used to control woody brush, trees and vines along railroad rights-of-way. Apply 3 to 8 quarts (3.0 – 8.0 lb ae) of this product in up to 80 gallons of spray solution per acre as a broadcast application using either a boom or boomless sprayer. Apply a 0.75- to 1.7-percent solution of this product when using high-volume application equipment with a spray-to-wet technique, or a 5- to 8-percent solution when using low-volume directed sprays for spot treatment.

**TANK MIXTURES:** This product may be applied in a tank-mix with one or more of the following products for enhanced control of woody brush, trees and vines along railroad rights-of-way, provided that the product is label for approved sites and application rates. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Chlorosulfuron	Fosamine	Metsulfuron methyl
Clopyralid	Hexazinone	Picloram
Dicamba	Imazapyr	Triclopyr

### Weed Control in Dormant and Actively Growing Bermudagrass

This product may be used to control or partially control many annual and perennial weeds in dormant and actively growing bermudagrass along railroad rights-of-way. See the "WEEDS CONTROLLED" section of this label for directions for use of this product for weed control in grasses.

This product will control or suppress many annual weeds growing in perennial cool- and warm-season grass rangeland. Slight discoloration of the desirable grasses could occur, but will re-green and resume growing under moist soil conditions as effects of this product wear off.

Preventing seed production is critical to the control of invasive annual grassy weeds on rangeland. Yearly application of this product to eliminate invasive annual weeds before they produce seed will help eliminate viable weed seeds from the soil. Delay grazing of the area after application of this product to allow desirable perennials to grow, flower and re-seed the area.

**Bromus Control:** A broadcast application of 6 to 12 fluid ounces (0.19 – 0.38 lb ae) of this product per acre will control or suppress downy brome (*Bromus tectorum*), Japanese brome (*Bromus japonicus*), soft chess (*Bromus mollis*), cheatgrass (*Bromus secalinus*), cereal rye and jointed goatgrass on rangeland. For enhanced results, apply this product when most brome plants are in early-flower and before the plants, including seedheads, turn color. Allow for secondary weed flushes to occur after spring rains to further deplete the seed reserve in the soil and encourage perennial grass conversion on weedy sites. Apply this product in the fall in areas where spring moisture is normally limited and fall germination allows for good weed growth and weed seed depletion.

**Medulahead Control:** To control or suppress medulahead, apply 12 fluid ounces (0.38 lb ae) of this product per acre at the 3-leaf stage. Delaying application beyond this stage will result in reduced or unacceptable control. Controlled burning prior to application of this product will eliminate the thatch layer produced by slowly decaying culms. Allow new weed growth to occur before applying this product after a burn. Repeat this application annually to eliminate medulahead seeds in the soil and allow desirable perennial grasses to repopulate the area.

**RESTRICTIONS:** **DO NOT** apply more than 2.23 quarts (2.23 lb ae) of this product per acre per year on rangeland. **DO NOT** use ammonium sulfate when applying this product on rangeland grasses. No waiting period between application of this product and feeding or livestock grazing is required.

### Roadside Management

All uses of this product described on this label may be used for weed management along roadways, including weed control in dormant and active bermudagrass and bahiagrass, weed control along shoulders and under and around guardrails, signposts and other objects along the road, using any method of application described on this label.

**TANK MIXTURES:** This product may be tank-mixed with the following products for shoulder, guardrail, spot treatment and maintaining bare ground applications, provided that the product used is labeled for use on these sites. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions

and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

2,4-D	Hexazinone	Picloram
Atrazine	Imazapic	Proflamline
Bromacil	Imazapyr	Sethoxydim
Chlorosulfuron	Isoxaben	Simazine
Clopyralid	Metsulfuron methyl	Sulfometuron
Dicamba	Oryzalin	Sulfosulfuron
Diuron	Oxadiazon	Triclopyr
Fosamine	Pendimethalin	

### Utility Management

This product may be used along electrical power, pipeline and telephone rights-of-way, and on all sites associated with these utility rights-of-way, including substations, access roads and railroads, and along similar rights-of-way that run in conjunction with utilities, for spot treatment of unwanted vegetation, side-trimming, trim-and-edge application around objects, weed control prior to planting a utility site to ornamentals, flowers, or turfgrass (sod or seed), turf management, to eliminate unwanted weeds growing in established shrub or ornamental beds, to prepare or establish wildlife openings and for eliminating vegetation prior to or beginning construction projects.

**TANK MIXTURES:** This product may be tank-mixed with the following products for use on utility sites, provided that the product used is labeled for use on these sites. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

For control of herbaceous weeds, use a lower application rate or spray solution concentration within the given ranges for these tank-mix products and increase the rate or concentration toward the higher end of the ranges for control of dense stands or hard-to-control woody brush, trees and vines.

2,4-D	Fosamine	Pendimethalin
Atrazine	Hexazinone	Proflamline
Bromacil	Imazapic	Simazine
Chlorosulfuron	Imazapyr	Sulfometuron methyl
Clopyralid	Metsulfuron methyl	Sulfosulfuron
Dicamba	Oryzalin	Triclopyr
Diuron	Oxadiazon	

Ensure that the Triclopyr product is thoroughly mixed with water according to label directions before adding this product to the spray mixture. Maintain continuous agitation when adding this product in order to avoid tank-mix incompatibility problems.

For enhanced results with side-trimming, apply this product in a tank-mix with Triclopyr.

**RESTRICTION:** Application of this product may be repeated, as needed, to maintain bare ground, up to a total application of 8 quarts (8.0 lb ae) per acre per year.

### NONCROP WEEDS CONTROLLED

Read the entire label before proceeding to use this product.

Always use a higher application rate or spray solution concentration of this product within a given range when weed growth is heavy or dense, or when weeds are growing in an undisturbed (non-cultivated) area.

Poor weed control could be realized if application is made to weeds covered with dust. For weeds that have been mowed, grazed or cut, allow re-growth to occur prior to application of this product.

Refer to the sections that follow for application rates and timing of application for the control of annual and perennial weeds, woody brush, trees and vines.

### **Weed Control, Renovation and Chemical Mowing in Turf**

The use of this product described in this section may be applied to turfgrass growing on any terrestrial site listed on this label. Ensure that any tank-mix product applied with this product is labeled for the intended use and on the site of application.

#### **Weed Control in Dormant Bermudagrass and Bahiagrass**

This product may be used to control or suppress many winter annual weeds and tall fescue for effective release of dormant bermudagrass and bahiagrass prior to spring green-up in areas where these turfgrasses are desirable ground covers and some temporary injury or discoloration can be tolerated.

Apply 6 to 48 fluid ounces (0.19 – 1.50 lb ae) of this product in 10 to 40 gallons of water per acre when bermudagrass and bahiagrass are dormant and prior to spring green-up.

Application of more than 12 fluid ounces (0.38 lb ae) of this product per acre on highly maintained bermudagrass and bahiagrass turf, such as golf courses and lawns, could result in injury or delayed green-up in the spring.

For residual weed control in dormant bermudagrass and bahiagrass, this product may be tank-mixed with Sulfosulfuron or Sulfometuron-methyl. Apply 6 to 48 fluid ounces (0.19 – 1.50 lb ae) of this product per acre in a tank-mix with an appropriate rate of Sulfosulfuron or Sulfometuron-methyl in 10 to 40 gallons of water per acre. To avoid delays in green-up and minimize injury avoid application when these grasses are in a semi-dormant condition.

**RESTRICTIONS:** **DO NOT** apply this product in a tank-mix with Sulfosulfuron or Sulfometuron-methyl on highly maintained bermudagrass and bahiagrass turf, such as on golf courses and lawns.

#### **Weed Control in Actively Growing Bermudagrass**

This product may be used to control or partially control many annual and perennial weeds in actively growing bermudagrass. Some bermudagrass injury could result from the application of this product, but the bermudagrass will recover under moist conditions once the effects of the product wear off. Use only on well-established bermudagrass where some temporary injury or discoloration can be tolerated.

Apply 12 to 36 fluid ounces (0.38 – 1.13 lb ae) of this product in 10 to 40 gallons of spray solution per acre. Use a lower application rate within this range when controlling annual weeds less than 4 inches tall (or runner length) and increase the rate towards the upper end of the range as weeds increase in size or as they approach flower or seedhead formation. At these application rates, this product will provide partial control of the following perennial weeds in actively growing bermudagrass:

Bahiagrass	Fescue, tall	Trumpet creeper
Bluestem, silver	Johnsongrass	Vaseygrass

For a broader weed control spectrum in actively growing bermudagrass, this product may be tank-mixed with Sulfosulfuron or Sulfometuron-methyl. Apply these tank-mixtures only on well-established bermudagrass where some temporary injury or discoloration can be tolerated. Make no more than one application of this product in these tank mixtures in the same season, otherwise the bermudagrass could be severely injured.

Apply 6 to 24 fluid ounces (0.19 – 0.75 lb ae) of this product per acre in a tank-mix with Sulfosulfuron for control or partial control of johnsongrass and other weeds listed on the Sulfosulfuron label. Use a higher application rate of both products within the given ranges for control of annual or perennial weeds greater than 6 inches tall.

Apply 12 to 24 fluid ounces (0.38 – 0.75 lb ae) of this product per acre in a tank-mix with Sulfometuron-methyl for enhanced control of weeds listed on those labels. Use a lower application rate of each product within the given ranges to control annual weeds listed on the labels that are less than 4 inches tall (or runner length) and increase the rates toward the upper end of the ranges as annual weeds increase in size and approach the flower or

seedhead stage. This tank-mix will provide partial control of the following perennial weeds in actively growing bermudagrass:

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

**PRECAUTIONS:** Applying more than 12 fluid ounces (0.38 lb ae) of this product per acre on highly maintained bermudagrass, such as on golf courses and lawns, could cause unacceptable turf injury and discoloration. Apply these tank mixtures only on well-established bermudagrass where some temporary injury or discoloration can be tolerated.

**RESTRICTIONS:** **DO NOT** apply this product in a tank mixture with Sulfosulfuron or Sulfometuron-methyl on highly maintained bermudagrass, such as on golf courses and lawns.

#### **Weed Control in Actively Growing Bahiagrass**

For suppression of vegetative growth and seedhead inhibition of bahiagrass for approximately 45 days, apply 4.5 fluid ounces (0.14 lb ae) of this product in 10 to 40 gallons of water per acre 1 to 2 weeks after full green-up or after mowing to a uniform height of 3 to 4 inches prior to seedhead emergence.

For growth suppression of bahiagrass for up to 120 days, apply 3.5 fluid ounces (0.11 lb ae) of this product per acre, followed by an application of 1.7 to 3.5 fluid ounces (0.05 – 0.11 lb ae) per acre about 45 days later. Make no more than two growth suppression applications per year.

For broad spectrum weed control in actively growing bahiagrass, this product may be tank-mixed with Sulfosulfuron or Sulfometuron-methyl.

Apply 1.7 to 4 fluid ounces (0.05 – 0.13 lb ae) of this product per acre in a tank-mix with an appropriate rate of Sulfosulfuron per acre to control perennial weeds or annual weeds greater than 4 inches in height.

Apply 4.5 fluid ounces (0.14 lb ae) of this product per acre in a tank-mix with an appropriate rate of Sulfometuron-methyl 1 to 2 weeks following an initial spring mowing for enhanced control of weeds listed on the Sulfometuron-methyl label in actively growing bahiagrass. Make this application only once per year.

**PRECAUTIONS:** Apply these tank mixtures only on well-established bahiagrass where some temporary injury or discoloration can be tolerated.

#### **Turf Renovation**

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 until after determining if any re-growth of underground plant parts will occur. Where repeat applications are necessary, sufficient re-growth must be attained prior to re-application of this product. Summer or fall application provides enhanced control of warm-season grasses, such as bermudagrass. For managed turfgrass, apply this product after omitting at least one regular mowing to allow sufficient growth for good interception of the spray solution.

This product has no residual soil activity and will not affect plants, seed or sod planted back into the area after application.

A handheld sprayer may be used for spot treatment of unwanted vegetation growing in existing turfgrass. Broadcast application or spot treatment using a handheld sprayer may be used to control sod remnants or other unwanted vegetation after sod is harvested.

**PRECAUTIONS:** **DO NOT** disturb soil or underground plant parts before application of this product. Delay tillage and renovation techniques, such as vertical mowing, coring or slicing, a minimum of 7 days after application to allow translocation of this product into underground plant parts.



RESTRICTIONS: If application rates total 2.3 quarts (2.3 lb ae) of this product per acre or less, no waiting period between application and feeding or livestock grazing is required. If the rate is greater than 2.3 quarts (2.3 lb ae) per acre, remove domestic livestock before application and wait 8 weeks after application before grazing or harvesting.

### Chemical Mowing

This product may be used to suppress growth of perennial and annual grasses listed in this section to serve as a substitute for mowing.

**Perennial Grasses** – apply 4.5 fluid ounces (0.17 lb ae) to suppress tall fescue, fine fescue, orchardgrass, quackgrass or reed canarygrass in 10 to 40 gallons of spray solution per acre after grasses have greened up to at least 75 percent green color in the spring, or 7 to 10 days after mowing when sufficient re-growth has occurred to provide a desirable height for growth regulation. Use chemical mowing only in areas where some temporary injury or discoloration of perennial grasses can be tolerated.

**Annual Grasses** – apply 3.5 to 4.5 fluid ounces (0.11 – 0.14 lb ae) of this product in 10 to 40 gallons of spray solution per acre to suppress growth of some annual grasses, such as annual ryegrass, wild barley and wild oats when actively growing in coarse turf on roadsides or other industrial areas and before the seedheads are in the boot stage of development. This application could injure the desired annual grasses.

PRECAUTIONS: Use this product for chemical mowing only in areas where some temporary injury or discoloration of perennial and annual grasses can be tolerated.

### Annual Weeds

Annual weeds are easiest to control when they are small and actively growing. New leaf development indicates active growth.

To control or partially control the annual weeds listed in this section when they are less than 6 inches in height or runner length and actively growing, apply 24 fluid ounces (0.75 lb ae) of this product per acre. If they are over 6 inches in height or runner length or slowly growing under stressed conditions, increase the application rate to 1 to 3 quarts (1.0 – 3.0 lb ae) per acre, depending on weed height and severity of the poor growing conditions.

For application using a handheld sprayer with a spray-to-wet technique, apply a 0.5-percent solution of this product to annual weeds less than 6 inches in height or runner length prior to seedhead formation in grasses or bud formation in broadleaf weeds. To control annual weeds over 6 inches tall, or even smaller weeds growing under stressed conditions, apply a 0.8- to 1.7-percent solution. Apply the maximum concentration of this product within this range to hard-to-control weeds or to control weeds over 24 inches tall.

For control of annual weeds using a handheld controlled droplet applicator (CDA), apply a 20-percent solution of this product at a flow rate of 2 fluid ounces of spray solution per minute and a walking speed of 1.5 miles per hour (1.5 pints of spray solution per acre). When using a vehicle-mounted CDA, apply the required amount of this product, as indicated in this section, in 2 to 15 gallons of water per acre.

For enhanced control, **DO NOT** mow, cut, till, burn or disturb vegetation in the application area for a minimum of 3 days after application.

This product has no residual soil activity and does not control emergence of new annual weeds from seed. Subsequent applications of this product will be needed to control weeds that continue to emerge.

ANNUAL WEED SPECIES	
Anoda, spurred	Medusahead
Balsam apple <sup>1</sup>	Morning glory ( <i>Ipomoea</i> spp)
Barley	Mustard, blue
Barley, little	Mustard, tansy
Barnyardgrass	Mustard, tumble
Bassia, fivehook	Mustard, wild

ANNUAL WEED SPECIES	
Bittercress	Nightshade, black
Bluegrass, annual	Oats
Bluegrass, bulbous	Panicum, browntop
Brome, downy	Panicum, fall
Brome, Japanese	Panicum, Texas
Broomsedge	Pennycress, field
Buttercup	Pepperweed, Virginia
Castor bean <sup>2</sup>	Pigweed
Cheatgrass	Puncturevine
Cheeseweed ( <i>Malva parviflora</i> )	Purslane, common
Chervil	Pusley, Florida
Chickweed	Ragweed, common
Cocklebur	Ragweed, giant
Copperleaf, hophornbeam	Rice, red
Copperleaf, Virginia	Rocket, London
Coreopsis, plains/tickseed	Rocket, yellow
Corn	Rye
Crabgrass	Ryegrass
Cupgrass, woolly	Sandbur, field
Dwarf dandelion	Sesbania, hemp
Eclipta	Shattercane
False dandelion	Shepherd's-purse
Falseflax, smallseed	Sicklepod
Fiddleneck	Signalgrass, broadleaf
Flaree	Smartweed, ladythumb
Fleabane, annual	Smartweed, Pennsylvania
Fleabane, hairy ( <i>Coryza bonariensis</i> )	Sorghum, grain (milo)
Fleabane, rough	Southwistle, annual
Foxtail	Spanish needles <sup>3</sup>
Foxtail, Carolina	Speedwell, corn
Geranium, Carolina	Speedwell, purslane
Goatgrass, jointed	Sprangletop
Goosegrass	Spurge, annual
Groundsel, common	Spurge, prostrate
Henbit	Spurge, spotted
Horseweed / Maretail ( <i>Coryza canadensis</i> )	Spurry, umbrella
Itchgrass	Starthistle, yellow
Johnsongrass, seedling	Stinkgrass
Junglerice	Sunflower
Knotweed	Teaweed / Prickly sida
Kochia	Thistle, Russian
Lambsquarters	Velvetleaf
Lettuce, prickly	Wheat

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ANNUAL WEED SPECIES	
Mannagrass, eastern	Wild oats
Mayweed	Witchgrass
<sup>1</sup> For control of balsam apple, apply this product using handheld equipment only. <sup>2</sup> Control of castor bean can also be achieved by injecting 4 milliliters of this concentrated (undiluted) product per plant into the lower portion of the main stem. <sup>3</sup> For control of Spanish needles, apply 48 fluid ounces (1.50 lb ae) of this product per acre.	

### Perennial Weeds

Enhanced control of perennial weeds can be obtained when this product is applied to target weeds that are small and actively growing. New leaf development indicates active growth. If application must be made to larger weeds or to weeds that are slowly growing under stressful conditions, apply this product at a rate or spray solution concentration towards the upper end of the specified range.

If weeds have been mowed or tilled, **DO NOT** apply this product until plants have resumed active growth and have reached the specified stage of growth or sufficient growth has been achieved to allow for good interception of the spray solution. For enhanced control, **DO NOT** mow, cut, till, burn or disturb vegetation in the application area for a minimum of 7 days after application.

For control of perennial weeds listed on this label using backpack or handheld equipment and a low-volume application technique, apply a 5- to 8-percent solution of this product over the crown of the target plant to cover 50 percent of the upper plant foliage.

For control of perennial weeds using a handheld controlled droplet applicator (CDA), apply a 20- to 40-percent solution of this product at a flow rate of 2 fluid ounces of spray solution per minute and a walking speed of 0.75 mile per hour (1.5 to 3 quarts of spray solution per acre). When using a vehicle-mounted CDA, apply the required amount of this product, as indicated in the following table, in 2 to 15 gallons of water per acre.

Application of this product in the fall must be made before a killing frost.

This product has no soil activity and does not control emergence of perennial weeds from seed and dormant underground roots, rhizomes or tubers present in the soil at the time of application. More than one application of this product will be necessary for continued control of weeds that emerge following application.

PERENNIAL WEEDS RATE TABLE

Perennial Weed Species	Broadcast Rate (quarts/acre)	Handheld Sprayer Concentration (% Solution)
<b>Alfalfa*</b>	1 – 1.7	1.5%
<b>Alligatorweed*</b>	3.4	1%
Apply this product when most of the target plants are in bloom. More than one application will be needed to achieve control.		
<b>Anise (fennel)</b>	1.5 – 3	1 – 1.5%
<b>Bahiagrass</b>	2.3 – 3.8	1.5%
<b>Beachgrass, European</b> ( <i>Ammophila arenaria</i> )	–	3.5%

Perennial Weed Species	Broadcast Rate (quarts/acre)	Handheld Sprayer Concentration (% Solution)
Apply a 3.5-percent solution of this product using a spray-to-wet technique or an 8-percent solution using a low-volume application technique. Enhanced results can be obtained when application is made onto target weeds that are actively growing at the boot through the full-heading stage of development. Make application prior to the loss of more than 50 percent of green leaf color in the fall. Monitor application site and re-apply this product to any target weeds that were missed, if necessary, before re-seeding the area with desirable vegetation.		
For selective control of European beachgrass, apply a 33.3-percent solution of this product during period of active growth using a wiper applicator. Maximizing the amount of individual leaf tissue contacted by the wiper applicator and making a second pass in the opposite direction will improve control. Avoid contact of the herbicide solution with desirable vegetation.		
<b>Bentgrass*</b>	1	1.5%
This product alone will provide only partial control of bentgrass ( <i>Agrostis</i> spp.) for optimal control, apply 1.8 to 2.4 quarts of this product in a tank-mix with an appropriate rate of Clethodim, Fluzafop-P-butyl, Fenoxaprop-p-ethyl + Fluzafop-P-butyl or Sethoxydim in a spray volume of 20 to 40 gallons per acre using broadcast application equipment. For optimal control using a handheld sprayer, apply this product at a concentration of 1.7 fluid ounces per gallon as a spray solution in a tank mix with an appropriate amount of Clethodim, Fluzafop-P-butyl, Fenoxaprop-p-ethyl + Fluzafop-P-butyl or Sethoxydim. More than one application might be needed for complete control.		
<b>Bermudagrass</b>	3.8	1.5%
Make application when seedheads are present.		
<b>Bermudagrass, water (knotgrass)</b>	1	1.5%
<b>Bindweed, field</b>	2.3 – 3.8	1.5%
For control, apply 3 to 3.8 quarts of this product per acre as a broadcast application west of the Mississippi River and 2.3 to 3 quarts per acre east of the Mississippi River when bindweed is at or beyond full bloom. For enhanced results, apply in late-summer or fall.		
<b>Bittersweet, Oriental</b>	2.3	1.5%
For control of oriental bittersweet, apply this product as a broadcast spray in 30 to 40 gallons of spray solution. For enhanced results, ensure complete coverage of the target plant with the spray solution.		
<b>Bluegrass, Kentucky</b>	1.7	1.5%
Apply when most target plants have reached the boot to head stage of development. When application is made prior to the boot stage, reduced control can result. In the fall, make application before plants have turned brown.		
<b>Blueweed, Texas</b>	3 – 3.8	1.5%
Apply 3 to 3.8 quarts of this product per acre west of the Mississippi River and 2.7 to 3.4 quarts per acre east of the Mississippi River when most target plants are at or beyond full bloom. For enhanced results apply in late-summer or fall.		
<b>Brackenfern</b>	2.3 – 3.4	1%
Apply to fully expanded fronds that are at least 18 inches long		
<b>Bromegrass, smooth</b>	1.7	1%
Apply this product when most target plants have reached the boot to head stage of development. When application is made prior to the boot stage, reduced control can result. In the fall, make application before plants have turned brown.		
<b>Bursage, woolly-leaf</b>	---	1.5%
<b>Canarygrass, reed</b>	1.7 – 2.3	1.5%
Apply this product when most target plants have reached the boot to head stage of development. When application is made prior to the boot stage, reduced control can result. In the fall, make application before plants have turned brown.		

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Perennial Weed Species	Broadcast Rate (quarts/acre)	Handheld Sprayer Concentration (% Solution)
<b>Cattail</b>	2.3 – 3.8	1.5%
Apply this product when target plants are actively growing and are at or beyond the early to full bloom stage of development. Enhanced results are achieved when application is made during the summer or fall months.		
<b>Clover; red, white</b>	2.3 – 3.8	1.5%
<b>Cogongrass</b>	2.3 – 3.8	1.5%
Apply this product in late-summer or fall when cogongrass is at least 18 inches tall and actively growing. Due to uneven stages of growth and the dense nature of cogongrass vegetation, more than one application might be necessary to achieve control.		
<b>Dallisgrass</b>	2.3 – 3.8	1.5%
<b>Dandelion</b>	2.3 – 3.8	1.5%
<b>Dock, curly</b>	2.3 – 3.8	1.5%
<b>Dogbane, hemp</b>	3	1.5%
Apply this product when most target plants have reached the late-bud to flower stage of growth. For enhanced results, make application in late-summer or fall.		
<b>Fescue (except tall)</b>	3.4	1.5%
<b>Fescue, tall</b>	2.3	1.5%
Apply this product when most target plants have reached the boot to head stage of growth. If applied prior to the boot stage, less than desirable control might be obtained.		
<b>Guinea grass</b>	2.3	1%
Apply this product when most target plants have at least reached the 7-leaf growth stage.		
<b>Hemlock, poison</b>	1.5 – 3	1 – 1.5%
Control can also be achieved by injecting 5 milliliters of a 5-percent solution of this product using a handheld injection device in one leaf cane per plant, 12 inches above the root crown. <sup>1</sup>		
<b>Hogweed, giant</b>	–	–
Inject 5 milliliters of a 5-percent solution of this product into one leaf cane per plant, 12 inches above the root crown. <sup>1</sup>		
<b>Horsenettle</b>	2.3 – 3.8	1.5%
<b>Horseradish</b>	3.4	1.5%
Apply this product when most target plants have reached the late-bud to flower stage of development. For enhanced results, apply in late-summer or fall.		
<b>Horsetail, field</b>	–	–
Inject 0.5 milliliter of this product per stem directly into the plant stem, one segment above the root crown. <sup>1</sup>		
<b>Iceplant</b>	1.5	1.5 – 2%
<b>Ivy; cape, German</b>	1.5 – 3	1 – 1.5%
<b>Jerusalem artichoke</b>	2.3 – 3.8	1.5%
<b>Johnsongrass</b>	1.5 – 2.3	1%
Apply this product when most target plants have reached the boot to head stage of development or before plants have turned brown in the fall. When applied prior to the boot stage, reduced control can result.		
<b>Kikuyugrass</b>	1.7 – 2.3	1.5%
<b>Knapweed</b>	3.4	1.5%
Apply this product when most target plants have reached the late-bud to flower stage of growth. For enhanced results, apply in late-summer or fall.		
<b>Knotweed; Bohemian, giant, Japanese</b>	3	2%

Perennial Weed Species	Broadcast Rate (quarts/acre)	Handheld Sprayer Concentration (% Solution)
Apply 3 quarts of this product per acre as a broadcast application in 3 to 40 gallons of spray solution. For application using a backpack sprayer and a spray-to-wet technique, apply a 2-percent solution of this product. For optimal control, <b>DO NOT</b> disturb vegetation in the application area for a minimum of 7 days after application.		
Control can also be achieved by cutting stems cleanly just below the 2nd or 3rd node above the ground and immediately apply 10 milliliters of a 50-percent solution of this product in water into the "well" or remaining internode. Ensure that the upper plant material that was removed is gathered and properly discarded to prevent new plants from propagating from sprouting buds. Use of a bio-barrier, such as cardboard, plywood or plastic sheeting, will help guard against the spread of plant material. The combined total application rate of this product must not exceed 8 quarts per acre. <sup>1</sup>		
Control can also be achieved by injecting 5 milliliters of this product per stem into the second or third internode using a handheld injection device. <sup>1</sup>		
<b>Lantana</b>	–	1%
Apply this product when most target plants are at or beyond the bloom stage of growth. Use the higher spray solution concentration on plants that have reached the woody stage of growth.		
<b>Lespedeza</b>	2.3 – 3.8	1.5%
<b>Loosestrife, purple</b>	2	1 – 1.5%
Apply this product when most target plants are at or beyond the bloom stage of growth. Enhanced results can be achieved when application is made during summer or fall months. Fall application must be made before a killing frost.		
<b>Lotus, American</b>	2	0.75%
Apply this product when most target plants are at or beyond the bloom stage of growth. Enhanced results can be achieved when application is made during summer or fall months. Fall application must be made before a killing frost. More than one application of this product might be necessary to control re-growth of underground plant parts and seeds.		
<b>Milkweed, common</b>	2.3	1.5%
Apply this product when most target plants have reached the late-bud to flower stage of growth.		
<b>Muhly, wirestem</b>	1.7	1.5%
Make application when most target plants are at least 8 inches in height (3- to 4-leaf stage of development) and actively growing.		
<b>Mullein, common</b>	2.3 – 3.8	1.5%
<b>Napiergrass</b>	2.3 – 3.8	1.5%
<b>Nightshade, silverleaf</b>	2.3 – 3.8	1.5%
Apply 3 to 3.8 quarts of this product per acre as a broadcast application west of the Mississippi River and 2 to 3 quarts per acre east of the Mississippi River when most target plants are at or beyond full bloom. Enhanced results can be obtained when application is made in late-summer or fall after berries have formed.		
<b>Nutsedge; purple, yellow</b>	2.3	1-1.5%
Apply this product to control existing nutsedge plants and attached immature nutlets when target plants are in flower or when new nutlets can be found at rhizome tips. Nutlets that have not germinated will not be controlled and will require repeated application of this product for long-term control.		
<b>Orchardgrass</b>	1.7	1.5%
Make application when most target plants have reached the boot to head stage of development. When applied prior to the boot stage, less than desirable control could be obtained. In the fall, make application before plants have turned brown.		
<b>Pampas grass</b>	2.3 – 3.8	1 – 1.5%
<b>Para grass</b>	2.3 – 3.8	1.5%
More than one application of this product will be needed to achieve complete control. Allow plants to re-grow to the 7- to 10-leaf stage before making next application.		

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Perennial Weed Species	Broadcast Rate (quarts/acre)	Handheld Sprayer Concentration (% Solution)
<b>Pepperweed, perennial</b>	3	1.5%
<b>Phragmites*</b>	2.3 – 3.8	1 – 1.5%
For partial control of phragmites in Florida and the counties of other states bordering the Gulf of Mexico, apply 3.8 quarts of this product per acre as a broadcast application or a 1.5-percent solution using a handheld sprayer. In other areas of the U.S., apply 2 to 3 quarts per acre as a broadcast application or, for partial control, apply a 0.75-percent solution using a handheld sprayer. For enhanced results, make application in late-summer or fall when plants are actively growing and in full bloom. Due to the dense nature of this vegetation (which can prevent good spray coverage) and uneven stages of growth, more than one application of this product might be necessary to achieve control. Visual symptoms of control will be slow to develop.		
<b>Quackgrass</b>	1.5 – 2.3	1.5%
Apply this product when most target plants are at least 8 inches in height (3- to 4-leaf stage of development) and actively growing.		
<b>Redvine*</b>	1.7	1.5%
<b>Reed; common, giant</b>	3 – 3.8	1.5%
Enhanced results can be obtained when application is made in late-summer or fall. Control can also be achieved by injecting 5 milliliters of this concentrated product (undiluted) directly into the second or third internode using a handheld injection device. <sup>1</sup>		
<b>Ryegrass, perennial</b>	1.7 – 2.3	1%
Apply this product when most target plants have reached the boot to head stage of growth. When applied prior to the boot stage, reduced control can result. In the fall, make application before ryegrass turns brown.		
<b>Smartweed, swamp</b>	2.3 – 3.8	1.5%
<b>Spatterdock</b>	3	0.75%
Make application when most target plants are in full bloom. For enhanced results, apply in the summer or fall.		
<b>Sowthistle, perennial</b>	1.7 – 2.3	1.5%
<b>Spurge, leafy*</b>	–	1.5%
<b>Starthistle, yellow</b>	1.7	1.5%
<b>Sweet potato, wild*</b>	–	1.5%
Make application when most target plants are at or beyond the bloom stage of growth. More than one application will be needed to achieve control.		
<b>Thistle, artichoke</b>	1.5 – 2.3	1 – 1.5%
Make application when target plants are at or beyond the bud stage of growth.		
<b>Thistle, Canada</b>	1.7 – 2.3	1.5%
Make application when target plants are at or beyond the bud stage of growth. Control can also be achieved by stem-injection. Cut 8 to 9 of tallest plants in a clump at bud stage. Push a cavity needle into the stem center and then slowly remove it as you inject 0.5 milliliter of this concentrated (undiluted) product into the stem. <sup>1</sup>		
<b>Timothy</b>	1.7 – 2	1.5%
Make application when most target plants have reached the boot to head stage of development. If application is made prior to the boot stage, reduced control can result. In the fall, make application before plants turn brown.		
<b>Torpedograss*</b>	3 – 3.8	1.5%
<b>Trumpet creeper*</b>	1.7 – 2.3	1.5%
<b>Tules, common</b>	–	1.5%
Make application to target plants at or beyond the seedhead stage of development. Visual symptoms will be slow to appear and might not appear for 3 or more weeks after application.		

Perennial Weed Species	Broadcast Rate (quarts/acre)	Handheld Sprayer Concentration (% Solution)
<b>Vaseygrass</b>	2.3 – 3.8	1.5%
<b>Velvetgrass</b>	2.3 – 3.8	1.5%
<b>Wheatgrass, western</b>	1.7 – 2	1.5%
Make application when most target plants have reached the boot to head stage of development. Application made prior to the boot stage could result in reduced control. In the fall, make application before plants turn brown.		
* Partial control only <sup>1</sup> When using stem injection, the combined total use of this product must not exceed 8 quarts per acre per year. At 5 milliliters of concentrated (undiluted) product per stem, 8 quarts will treat approximately 1300 stems per acre per year. The number of stems that can be treated per acre will vary depending on the injection volume and the concentration of this product in the application solution.		

### Woody Brush, Trees and Vines

Apply this product to brush and trees that are actively growing after full leaf expansion, unless otherwise directed. Use a higher application rate within the given range for larger brush and trees and/or for application in areas of dense vegetative growth. For the control of vines, apply this product at a higher application rate or spray solution concentration within the given range when target plants have reached the woody stage of growth.

Optimal control of woody brush and trees is obtained when application is made in late-summer or fall after fruit formation; however, in arid areas, optimal control can be obtained when application is made in the spring to early-summer when brush and trees are at high moisture content and flowering. Poor control can be expected when this product is applied to drought-stressed brush and trees.

Some autumn color on undesirable deciduous species is acceptable when applying this product to brush and trees in the fall, provided no major leaf drop has occurred. Reduced performance of this product could result if application is made following a frost. Symptoms might not appear prior to frost or senescence following a fall application.

For enhanced results, allow 7 or more days after application before mowing, cutting, tilling, burning or removal of woody brush, trees and vines from that application site. Additional applications of this product will be needed to control brush and trees regenerating from underground parts or seed.

**TANK MIXTURES:** This product may be applied at any rate stated on this label in a tank mixture with the following products to increase the spectrum of control of herbaceous weeds, woody brush, trees and vines. For control of herbaceous weeds, apply the tank-mix product at the lower end of the given application rate or spray solution concentration range. For control of dense stands or hard-to-control woody brush, trees and vines, increase the application rate or spray solution concentration of the tank-mix product towards the higher end of the range. Refer to the individual product labels for approved uses and application rates.

Imazapyr

Metsulfuron methyl

Triclopyr

Ensure that the proper amount of the Triclopyr is thoroughly mixed with water in the spray tank before adding this product.

### Cut Stump Application

This product may be used to control re-growth and re-sprouting of woody brush and trees on any site listed on this label.

Cut the woody brush or tree close to the soil surface and immediately apply a 50- to 100-percent (undiluted) solution of this product to the freshly-cut surface using an applicator capable of applying this product to the entire cambium. A delay in application could result in reduced performance. For enhanced results, cut the woody brush or tree during period of active growth and full leaf expansion and apply this product. No surfactant is needed for cut stump application.

For control of the tree of heaven (*Ailanthus altissima*), cut the tree close to the soil surface and immediately apply a 50-percent solution of this product (16 fluid ounces (0.05 lb ae) per quart of solution) and 10 percent imazapyr herbicide in water to the freshly-cut surface.

**PRECAUTIONS:** Injury resulting from root grafting may occur in adjacent trees. Some sprouts, stems, or trees can share a common root system. Adjacent trees having a similar age, height and spacing could be an indicator of a shared root system. Whether grafted or shared, injury is likely to occur to adjacent stems or trees when this product is applied to one or more trees sharing a common root system.

**RESTRICTION:** **DO NOT** make a cut stump application when the roots of adjacent desirable trees might be grafted to the roots of the cut stump.

#### Woody Brush and Tree Injection and Frill Application

This product may be used to control woody brush and trees listed in this section by injection or frill application on any site listed on this label.

Inject or apply the equivalent of 1 milliliter (0.04 fluid ounce) of this product for every 2 to 3 inches of trunk diameter at breast height (DBH). If injecting this product into the woody brush or tree, use equipment capable of penetrating into the living plant tissue under the bark.

For frill application, apply a 50- to 100-percent (undiluted) solution of this product in water to either a continuous frill around the tree or to cuts evenly spaced around the tree below all branches. As tree diameter increases, enhanced results can be achieved by applying this product to a continuous frill or to more closely spaced cuttings. Avoid application techniques that allow runoff of this product to occur from frilled or cut areas. In species that freely exude sap, make the frill or cuts at an oblique angle to produce a cupping effect and apply this concentrated product undiluted. For enhanced results, make this application during period of active growth and after full leaf expansion.

#### Modified High-Volume and Low-Volume Backpack Application

For control and partial control of woody bush, trees and vines listed on this label when using a backpack sprayer or other handheld equipment and a directed low-volume foliar application technique, apply a 5- to 9-percent solution of this product evenly over the plant crown to cover 50 percent of the upper foliage of undesirable woody brush, trees and vines.

**WOODY BRUSH, TREES AND VINES RATE TABLE**

Species	Broadcast Rate (quarts/acre)	Handheld Spray-to-Wet Concentration (% Solution)
<b>Alder</b>	2.3 – 3.4	1%
<b>Ash*</b>	1.7 – 3.8	1 – 1.5%
<b>Aspen, quaking</b>	1.7 – 2.3	1%
<b>Bearclover (Bearnat)*</b>	1.7 – 3.8	1 – 1.5%
<b>Beech*</b>	1.7 – 3.8	1 – 1.5%
<b>Birch</b>	1.7 – 2.3	1%
<b>Blackberry</b>	2.3 – 3.5	1%
<b>Blackgum</b>	1.7 – 3.8	1 – 1.5%
<b>Bracken</b>	1.7 – 3.8	1 – 1.5%
<b>Broom; French, Scotch</b>	1.5 – 3.8	1 – 1.5%
<b>Buckwheat, California*</b>	1.5 – 3.8	1 – 1.5%
<b>Cascara*</b>	1.5 – 3.8	1 – 1.5%
<b>Castor bean</b>	1.3 – 3.8	1 – 1.5%
Also for control, inject 4 milliliters of this concentrated (undiluted) product per plant directly into the lower portion of the main stem using a handheld injection device. <sup>1</sup>		
<b>Catsclaw*</b>	–	1%

Species	Broadcast Rate (quarts/acre)	Handheld Spray-to-Wet Concentration (% Solution)
<b>Ceanothus*</b>	1.7 – 3.8	1 – 1.5%
<b>Chamise*</b>	1.5 – 3.8	1%
<b>Cherry; bitter, black, pin</b>	1.5 – 3.75	1 – 1.5%
<b>Coyote brush</b>	2.3 – 3	1 – 1.5%
For control, apply this product when at least 50 percent of the new leaves are fully developed.		
<b>Deerweed</b>	1.5 – 3.8	1%
<b>Dogwood*</b>	1.7 – 3.8	1 – 1.5%
<b>Elderberry</b>	1.7 – 3.8	1%
<b>Elm*</b>	1.7 – 3.8	1 – 1.5%
<b>Eucalyptus</b>	–	1.5%
For control of eucalyptus re-sprouts, apply this product using a handheld sprayer when re-sprouts are 6 to 12 feet tall. Ensure complete coverage.		
<b>Gallberry</b>	1.7 – 3.8	1 – 1.5%
<b>Gorse*</b>	1.7 – 3.8	1 – 1.5%
<b>Hackberry, western</b>	1.7 – 3.8	1 – 1.5%
<b>Hasardia*</b>	1.5 – 2.8	1 – 1.5%
<b>Hawthorn</b>	1.7 – 2.3	1%
<b>Hazel</b>	1.7 – 2.3	1%
<b>Hickory*</b>	1.7 – 3.8	1 – 1.5%
<b>Honeysuckle</b>	2.3 – 3.4	1%
<b>Hornbeam, American*</b>	1.7 – 3.8	1 – 1.5%
<b>Huckleberry</b>	1.5 – 3.75	0.75 – 1.5%
<b>Ivy, poison</b>	2.8 – 3.8	1 – 1.5%
<b>Kudzu</b>	2.8 – 3.8	1.5%
<b>Locust, black*</b>	1.7 – 3.4	1 – 1.5%
<b>Madrone (resprouts)*</b>	–	1.5%
<b>Manzanita*</b>	1.7 – 3.8	1 – 1.5%
<b>Maple, red</b>	1.7 – 3.4	1%
For control, apply a 1-percent solution of this product using a handheld sprayer when leaves are fully developed. For partial control, apply 1.7 to 3.4 quarts per acre as a broadcast application.		
<b>Maple, sugar</b>	–	1%
For control, apply this product using a handheld sprayer when at least 50 percent of the new leaves are fully developed.		
<b>Maple, vine*</b>	1.7 – 3.8	1 – 1.5%
<b>Monkey flower*</b>	1.5 – 3	1 – 1.5%
<b>Oak; black, white*</b>	1.7 – 3.4	1 – 1.5%
<b>Oak; northern, pin</b>	1.5 – 3	1%
For control, apply this product when at least 50 percent of the new leaves are fully developed.		
<b>Oak, poison</b>	2.8 – 3.8	1.5%
Repeat applications might be needed to maintain control. Application in the fall must be made before leaves lose green color.		

Species	Broadcast Rate (quarts/acre)	Handheld Spray-to-Wet Concentration (% Solution)
<b>Oak, post</b>	2.3 – 3.4	1%
<b>Oak, red</b>	–	1%
For control, apply this product using a handheld sprayer when at least 50 percent of the new leaves are fully developed.		
<b>Oak, scrub*</b>	1.5 – 3	1%
<b>Oak, southern red</b>	1.7 – 2.3	1%
<b>Orange, Osage</b>	1.4 – 3.8	1 – 1.5%
<b>Peppertree, Brazilian (Florida holly)*</b>	1.5 – 3.8	1 – 1.5%
<b>Persimmon*</b>	1.7 – 3.8	1 – 1.5%
<b>Pine</b>	1.7 – 3.8	1 – 1.5%
<b>Poplar, yellow*</b>	1.7 – 3.8	1 – 1.5%
<b>Redbud, eastern</b>	1.7 – 3.8	1 – 1.5%
<b>Rose, multiflora</b>	1.7	1%
Make application prior to leaf deterioration by leaf-feeding insects.		
<b>Russian olive*</b>	1.7 – 3.8	1 – 1.5%
<b>Sage, black</b>	1.5 – 3	1%
<b>Sage, white*</b>	1.7 – 3	1 – 1.5%
<b>Sagebrush, California</b>	1.5 – 3	1 – 1.5%
<b>Salmonberry</b>	1.7 – 2.3	1%
<b>Saltcedar*</b>	1.7 – 3.8	1 – 1.5%
For partial control, apply a 1- to 1.5-percent solution of this product using a handheld sprayer or 1.7 to 3.8 quarts per acre as a broadcast application. For control, apply a 1- to 1.5-percent solution of this product in a tank-mix with imazapyr using a handheld sprayer. For control using broadcast application, apply 1.5 quarts of this product per acre in a tank-mix with an appropriate rate of imazapyr to plants less than 6 feet tall. To control saltcedar greater than 6 feet tall using broadcast application, apply 3 quarts of this product per acre in a tank-mix with a higher rate of imazapyr.		
<b>Sassafras*</b>	1.7 – 3.8	1 – 1.5%
<b>Sourwood*</b>	1.7 – 3.8	1 – 1.5%
<b>Sumac; laurel, poison, smooth, sugarbush, winged*</b>	1.7 – 3.4	1 – 1.5%
<b>Sweetgum</b>	1.7 – 2.3	1%
<b>Swordfern*</b>	1.7 – 3.8	1 – 1.5%
<b>Tallowtree, Chinese</b>	–	1%
<b>Tan oak (resprouts)*</b>	–	1.5%
<b>Thimbleberry</b>	1.7 – 2.3	1%
<b>Tobacco, tree*</b>	1.7 – 2.3	1 – 1.5%
<b>Toyon*</b>	–	1.5%
<b>Trumpetcreeper</b>	1.7 – 2.3	1%
<b>Virginia creeper</b>	1.7 – 3.8	1 – 1.5%
<b>Waxmyrtle, southern*</b>	1.7 – 3.8	1 – 1.5%
<b>Willow</b>	2.3 – 3.4	1%
<b>Yerba santa*</b>	–	1.5%

\* Partial control

## STORAGE AND DISPOSAL

**DO NOT** contaminate water, foodstuff, feed or seed by storage or disposal.

### Pesticide Storage

Store above 10°F (-12°C) to keep product from crystallizing. Crystals will settle to the bottom. If allowed to crystallize, place in a warm room 68°F (20°C) for several days to redissolve and roll or shake container or recirculate in mini-bulk or bulk container to mix well before using. Keep container closed to prevent spills and contamination.

### Pesticide Disposal

Wastes resulting from the use of this product that cannot be used or chemically reprocessed must be disposed of in a landfill approved for pesticide disposal or in accordance with applicable Federal, state or local procedures. Emptied container retains vapor and product residue. Observe all labeled safeguards until container is destroyed.

### Container Handling

**NONREFILLABLE CONTAINER (EQUAL TO OR LESS THAN 5 GALLONS): DO NOT** reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying.

**Triple rinse as follows:** Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Offer for recycling, if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

**NONREFILLABLE CONTAINER (GREATER THAN 5 GALLONS): DO NOT** reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. **Triple rinse as follows:** Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Offer for recycling, if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

**Pressure rinse as follows (all sizes):** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

**REFILLABLE CONTAINER:** Refill this container with pesticide only. **DO NOT** reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. After triple rinsing is complete, and the container is not suitable for refilling or reconditioning, offer the container for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.



#### **CONDITINS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY**

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather, presence of other materials or other influencing factors in the use of the product, which are beyond the control of INNVICTIS CROP CARE, LLC or Seller, TO THE EXTENT CONSISTENT WITH APPLICABLE LAW All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold INNVICTIS CROP CARE, LLC and Seller harmless for any claims relating to such factors.

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