

GROUP 9 HERBICIDE

# Razor<sup>®</sup> Pro

## HERBICIDE

THE COMPLETE BROAD SPECTRUM POSTEMERGENCE HERBICIDE CONTAINING 14% SURFACTANT FOR INDUSTRIAL, FORESTRY, TURF, VEGETATION MANAGEMENT AND ORNAMENTAL WEED CONTROL.

**ACTIVE INGREDIENT:**

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

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

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

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

**KEEP OUT OF REACH OF CHILDREN  
CAUTION / 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.)

**SEE INSIDE BOOKLET FOR FIRST AID AND ADDITIONAL PRECAUTIONARY STATEMENTS**

EPA Reg. No. 228-366

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

For Medical Emergencies Only, Call (877) 325-1840

Manufactured for  
Nufarm Americas Inc.  
11901 S. Austin Avenue  
Alsip, IL 60803



**Nufarm**

Grow a better tomorrow.

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

Causes moderate eye irritation. Harmful if swallowed or inhaled. Do not get in eyes or on clothing. Avoid breathing vapor or spray mist.

<b>FIRST AID</b>	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
<b>IF IN EYES</b>	<ul style="list-style-type: none"><li>• Hold eye open and rinse slowly and gently with water for 15 to 20 minutes.</li><li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>IF SWALLOWED</b>	<ul style="list-style-type: none"><li>• Call poison control center or doctor immediately for treatment advice.</li><li>• Have person sip a glass of water if able to swallow.</li><li>• Do not induce vomiting unless told to do so by the poison control center or doctor.</li><li>• Do not give anything by mouth to an unconscious person.</li></ul>
<b>IF INHALED</b>	<ul style="list-style-type: none"><li>• Move person to fresh air.</li><li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.</li><li>• Call a poison control center or doctor for further treatment advice.</li></ul>

**PERSONAL PROTECTIVE EQUIPMENT (PPE):**

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category F on an EPA chemical-resistance category selection chart.

**Applicators and other handlers must wear:**

- Long-sleeved shirt and long pants
- Shoes plus socks

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

**Engineering Controls Statement:**

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

**USER SAFETY RECOMMENDATIONS**

**Users should:**

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

**ENVIRONMENTAL HAZARDS**

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

**PHYSICAL OR CHEMICAL HAZARDS**

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

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

**DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. **READ ENTIRE LABEL BEFORE USING THIS PRODUCT.** 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 made of any waterproof material such as barrier laminate or Viton >13, 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**

Do not apply this product using aerial spray equipment except under conditions as specified within this label.

This product, a water-soluble liquid, mixes readily with water to be applied as a foliar spray for the control or elimination of most herbaceous plants. It may be applied through most standard industrial or field-type sprayers after dilution and thorough mixing with water in accordance with label instructions.

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

Unless otherwise specified on this label, delay application until vegetation has emerged and reached the stages described for control of such vegetation under the "WEEDS CONTROLLED" section of this label.

Always use the higher rate of this product per acre within the specified range when (1) weed growth is heavy or dense, or (2) weeds are growing in an undisturbed (non-cultivated) area.

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

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

Rainfall or irrigation occurring within 6 hours after application may reduce effectiveness. Heavy rainfall or irrigation within 2 hours after application may wash the spray mixture off the foliage and a repeat treatment may be required.

This product does not provide residual weed control. For subsequent residual weed control, follow a label-approved herbicide program. Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used.

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

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

If application rates for grass seed, sod production, non-cultivated areas, industrial sites, pasture grass and rangeland total 3 quarts per acre or less, no waiting period between treatment and feeding or livestock grazing is required. If the rate is greater than 3 quarts per acre, remove domestic livestock before application and wait 8 weeks after application before grazing or harvesting.

### **ATTENTION**

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

Do not allow the herbicide solution to mist, drip, drift or splash onto desirable vegetation since minute quantities of this product may kill, seriously injure or reduce yields of many desirable forms of vegetation including flowers, fruits, grapes, tomatoes, ornamentals, vegetables, cotton, soybeans, tobacco, beans and other desirable nontarget plants including, where applicable, target crop species not containing a glyphosate tolerant gene. Minute quantities of spray may cause severe plant response. Read and follow Spray Drift Management section of label. It is suggested to use a smoke generator or other means at or near the application site for the detection of air movement, air stability, or temperature inversions. The likelihood of injury occurring from the use of this product is greatest when winds are gusty or in excess of 5 miles per hour or when other conditions, including lesser wind velocities, will allow spray drift to occur. When spraying,

avoid combinations of pressure and nozzle type that will result in splatter or fine particles (mist) which are likely to drift. AVOID APPLYING AT EXCESSIVE SPEED OR PRESSURE.

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

#### **WEED RESISTANCE**

Any weed population may contain plants that are naturally resistant to glyphosate, the active ingredient in this product, and to other herbicides with the same mode of action. ATTENTION: These resistant weed biotypes will not be controlled by this product. Consult advisors such as your local agricultural extension service for agronomic management practices to minimize the occurrence of glyphosate resistance and considerations for supplemental control measures.

#### **Weed Management**

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

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

#### **Management of Glyphosate-Resistant Biotypes**

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

The following good agronomic practices are recommended to reduce the spread of confirmed glyphosate-resistant biotypes:

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

### **MIXING, ADDITIVES AND APPLICATION INSTRUCTIONS**

APPLY THESE SPRAY SOLUTIONS IN PROPERLY MAINTAINED AND CALIBRATED EQUIPMENT CAPABLE OF DELIVERING DESIRED VOLUMES. DO NOT APPLY WHEN WIND OR OTHER CONDITIONS FAVOR DRIFT. HAND-GUN APPLICATIONS SHOULD BE PROPERLY DIRECTED TO AVOID SPRAYING DESIRABLE PLANTS.

**NOTE:** REDUCED RESULTS MAY OCCUR IF WATER CONTAINING SOIL IS USED, SUCH AS WATER FROM PONDS AND UNLINED DITCHES.

#### **MIXING**

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

#### **TANK MIXTURES**

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

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

1. Place a 20 to 35 mesh screen or wetting basket over filling port.
2. Through the screen, fill the spray tank one-half full with water and start agitation.
3. If a wettable power is used, make a slurry with the water carrier, and add it SLOWLY through the screen into the tank. Continue agitation.

4. If a flowable formulation is used, premix one part flowable with one part water. Add diluted mixture SLOWLY through the screen into the tank. Continue agitation.
5. If an emulsifiable concentrate formulation is used, premix one part emulsifiable concentrate with two parts water. Add diluted mixture slowly through the screen into the tank. Continue agitation.
6. Continue filling the spray tank with water and add the required amount of this product near the end of the filling process.
7. Where nonionic surfactant is specified, add this to the spray tank before completing the filling process.
8. Add individual formulations to the spray tank as follows: wettable powder, flowable, emulsifiable concentrate, drift control additive, water soluble liquid followed by surfactant.

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

Keep by-pass line on or near bottom of tank to minimize foaming. Screen size in nozzle or line nozzle or line strainers should be no finer than 50 mesh. Carefully select proper nozzle to avoid spraying a fine mist. For best results with conventional ground application equipment, use flat fan nozzles.

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

#### **MIXING FOR HAND-HELD SPRAYERS**

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

#### **SPRAY SOLUTION**

DESIRED VOLUME	AMOUNT OF RAZOR PRO HERBICIDE					
	1/2%	1%	1-1/2%	2%	5%	10%
<b>1 Gal.</b>	2/3 fluid ounce	1-1/3 fluid ounces	2 fluid ounces	2-2/3 fluid ounces	6-1/2 fluid ounces	13 fluid ounces
<b>25 Gal.</b>	1 pint	1 quart	1-1/2 quart	2 quarts	5 quarts	10 quarts
<b>100 Gal.</b>	2 quarts	1 gallon	1-1/2 gallons	2 gallons	5 gallons	10 gallons

2 tablespoons = 1 fluid ounce

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

#### **ADDITIVES SURFACTANTS**

Nonionic surfactants which are labeled for use with herbicides may be used. Do not reduce rates of this product when adding surfactant. When adding additional surfactants follow manufacturers rates and instructions for use of the surfactant. Read and carefully observe surfactant cautionary statements and other information appearing on the surfactant label.

#### **AMMONIUM SULFATE**

The addition of 1 to 2 percent dry ammonium sulfate by weight or 8.5 to 17 pounds per 100 gallons of water may increase the performance of this product, and this product plus 2,4-D, dicamba (such as Clash or Banvel) or residual herbicide tank mixtures on annual and perennial weeds. The improvement in performance may be apparent where environmental stress is a concern. If ammonium sulfate is added directly to the spray tank, add slowly with agitation. Adding too quickly may clog outlet line. Ensure that ammonium sulfate is completely dissolved in the spray tank before adding herbicides or surfactant. Thoroughly rinse the spray system with clean water after use to reduce corrosion.

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

#### **COLORANTS OR DYES**

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

### **APPLICATION EQUIPMENT AND TECHNIQUES**

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

This product may be applied with the following application equipment:

**Aerial** - Fixed Wing and Helicopter

**Broadcast Spray**

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

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

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

**Selective equipment** - Recirculating sprayers, shielded sprayers, hooded sprayers and wiper applicators. See the appropriate part of this section for specific instructions and rates of application.



## AERIAL EQUIPMENT

Use the specified rates of this herbicide in sufficient volume of water to insure thorough coverage unless otherwise specified in this label. See the "WEEDS CONTROLLED" section of this label for specific use rates. Unless otherwise specified, do not exceed 1 quart per acre. Aerial applications of this product may be made in annual cropping conventional tillage systems, fallow and reduced tillage systems, Roundup Ready crops, and preharvest applications. Refer to the individual use area sections of this label for specified volumes and application rates. FOR AERIAL APPLICATION IN CALIFORNIA, see below.

Avoid direct application to any body of water.

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

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

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

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

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

This product plus Spyder® (Sulfometuron methyl), Diablo® (Dicamba) or 2,4-D tank mixtures may not be applied by air in California.

## SPRAY DRIFT MANAGEMENT

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions. The following drift management requirements must be followed to avoid off-target drift movement from aerial applications. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

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

### Importance of Droplet Size

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

### Controlling Droplet Size

**Volume**-Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.

**Pressure**-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 pressure.

**Number of nozzles**-Use the minimum number of nozzles that provide uniform coverage.

**Nozzle Orientation**-Orienting nozzles so that the spray is released backwards, parallel to the airstream will produce larger droplets than other orientations. Significant deflection from the horizontal will reduce droplet size and increase drift potential.

**Nozzle Type**-Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce larger droplets than other nozzle types.

**Boom Length**-For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.

**Application**-Applications must not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

### Swath Adjustment

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

### Wind

Drift potential is lowest between wind speeds of 2 to 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential.

Note: Local terrain can influence wind patterns. Every applicator should 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 set and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a connected cloud (under low wind conditions) indicates an inversion, while smoke that moves upwards and rapidly dissipates indicates good vertical air mixing.

### **Sensitive Areas**

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

### **FOR AERIAL APPLICATION IN CALIFORNIA ONLY**

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

### **Non-cultivated Sites**

When applied as directed and under the conditions described in the "Weeds Controlled" section of the label booklet for this product, this herbicide will control or partially control the labeled weeds growing in the following areas: airfields; airports; alleys, lanes, trails & access roads; around commercial or industrial structures or outbuildings; around farm and ranch structures and outbuildings; around ornamental gardens; around ornamental trees & shrubs; bare ground; beaches; campgrounds; construction sites; ditch banks; drive-in theaters; driveways & ramps; dry ditches & canals; fences & fencerows; firebreaks; golf courses; gravel yards; habitat restoration & management areas; highways & roadsides (including aprons, medians, guardrails & right of ways); industrial plant sites; industrial areas; lumber yards; mulched areas; natural areas; paths and trails; parking areas; parks; paved areas; petroleum & other tank farms; pumping installations; pipeline, power, telephone & utility rights-of-way; power stations; preplant to turf & ornamental plants; railroad rights-of-way; recreation areas; refineries; resorts; schools; sidewalks; sports areas; storage areas; substations; tennis courts; uncropped farmstead areas; uncultivated non-agricultural areas; vacant lots; walkways; wastelands; & wildlife habitat areas.

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

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

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

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

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

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

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

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### **FOR AERIAL APPLICATION IN FRESNO COUNTY, CALIFORNIA ONLY**

From February 15 through March 31 only. For aerial application outside of these dates, refer to the "FOR AERIAL APPLICATION IN CALIFORNIA ONLY" section printed above.

### **APPLICABLE AREA**

This section of the label only applies to the area contained inside the following boundaries within Fresno County, California only.

North: Fresno County line  
South: Fresno County line  
East: State Highway 99  
West: Fresno County line

## **PRODUCT INFORMATION**

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

Observe the following directions to minimize off-site movement during aerial application of this 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. This written direction MUST state the proximity of surrounding crops, and that conditions of each manufacturer's applicable product label(s) and this label have been satisfied.

## **AERIAL APPLICATOR TRAINING AND EQUIPMENT**

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

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.

To report known or suspected misuse of this product or for additional information on the proper aerial application of this product, call 1-800-345-3330.

Read the "WARRANTY" section in this label booklet before using this product.

## **BROADCAST EQUIPMENT**

For control of annual or perennial weeds listed on this label using broadcast equipment - Use the specified rates of this product per acre as a broadcast spray unless otherwise specified on this label. See the "WEEDS CONTROLLED" section of this label for specific rates.

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

Apply these spray solutions in properly maintained and calibrated equipment capable of delivering desired volumes.

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

For vehicle-mounted CDA equipment apply [3 to 15 gallons of water per acre] or [in a sufficient volume of water to assure thorough coverage.]

For the control of labeled annual weeds with hand-held CDA units, apply a 20 percent solution. For the control of labeled perennial weeds, apply a 20 to 40 percent solution of this product.

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

## **HAND-HELD and HIGH-VOLUME EQUIPMENT**

Use Coarse Sprays Only

Mix this product in clean water and apply to foliage of vegetation to be controlled. For applications made on a spray-to-wet basis, spray coverage should be uniform and complete. Do spray to the point of runoff.

For control of annual weeds listed on this label, apply a 0.5 percent solution of this product to weeds less than 6 inches in height or runner length. Apply prior to seedhead formation in grass or bud formation in broadleaf weeds. For agricultural uses, allow 3 or more days before tillage or mowing.

For annual weeds over 6 inches tall, unless otherwise specified, use a 1 percent solution. For best results, use a 2 percent solution on harder-to-control [perennials, such as Bermudagrass, Dock, Field bindweed, Hemp dogbane, Milkweed and Canada thistle.] or [weeds.]

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

See the "MIXING FOR HAND-HELD SPRAYERS" section of this label for specific rates.

## **SELECTIVE EQUIPMENT**

This product may be applied through a recirculating spray system, shielded and hooded applicators, or wiper applicators after dilution and thorough mixing with water to listed weeds growing in any non-cultivated site specified on this label and only when specifically instructed in cropping systems.

## **AVOID CONTACT WITH DESIRABLE VEGETATION**

Contact of the herbicide solution with the desirable vegetation may result in damage or destruction. Applicators used above desired vegetation should be adjusted so that the lowest spray stream or wiper contact point is at least 2 inches above the desirable vegetation. Droplets, mist, foam, or splatter of the herbicide solution settling on desirable vegetation may result in discoloration, stunting or destruction.

Applications made above the crops should be made when the weeds are a minimum of 6 inches above the desirable vegetation. Better



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

### SHIELDED AND HOODED APPLICATORS

When applied as directed under conditions described for shielded applicators, this product will control those weeds listed in the "WEEDS CONTROLLED" section of this label. Use the following equation to convert from a broadcast rate per acre to a band rate per acre.

$$\frac{\text{Band width in inches}}{\text{Row width in inches}} \times \text{Herbicide Broadcast RATE per acre} = \text{Herbicide Band RATE per acre}$$

$$\frac{\text{Band width in Inches}}{\text{Row width in inches}} \times \text{Broadcast VOLUME of solution per acre} = \text{Band VOLUME of solution per acre}$$

Use nozzles that provide uniform coverage within the treated area. Keep shields on shielded sprayers adjusted to protect desirable vegetation. EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT WITH DESIRABLE VEGETATION.

A hooded sprayer is a type of shielded applicator. The spray pattern is completely enclosed on the top and all 4 sides by a hood, thereby shielding the crop from the spray solution. This equipment must be set up and operated in a manner that avoids bouncing or raising the hoods off the ground in any way. If the hoods are raised, spray particles may escape and come into contact with the crop, causing damage or destruction of the crop. The spray hoods must be operated on the ground or skimming across the ground. Tractor speed must be adjusted to avoid bouncing of the spray hoods. Avoid operation on rough or sloping ground where the spray hoods might be raised off the ground.

For specific rates of application and instructions for control of various annual and perennial weeds, see the "WEEDS CONTROLLED" section of this label.

### WIPER APPLICATORS

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

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

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

Do not use wiper equipment when weeds are wet.

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

Do not add surfactant to the herbicide solution for wiper applications.

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

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

When applied as directed under the conditions described for "WIPER APPLICATORS", this product CONTROLS the following weeds.

#### ANNUAL GRASSES

<b>Corn</b> <i>Zea mays</i>	<b>Panicum, Texas</b> <i>Panicum texanum</i>	<b>Rye, common</b> <i>Secale cereale</i>	<b>Shattercane</b> <i>Sorghum bicolor</i>
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#### ANNUAL BROADLEAVES

<b>Sicklepod</b> <i>Cassia obtusifolia</i>	<b>Spanishneedles</b> <i>Bidens bipinnata</i>	<b>Starbur, bristly</b> <i>Acanthospermum hispidum</i>
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When applied as directed under the conditions described for "WIPER APPLICATORS", this product SUPPRESSES the following weeds:

#### ANNUAL BROADLEAVES

<b>Beggarweed, Florida</b> <i>Desmodium tortuosum</i>	<b>Pigweed, redroot</b> <i>Amaranthus retroflexus</i>	<b>Ragweed, giant</b> <i>Ambrosia trifida</i>	<b>Thistle, musk</b> <i>Carduus nutans</i>
<b>Dogfennel</b> <i>Eupatorium capilliflorum</i>	<b>Ragweed, common</b> <i>Ambrosia artemisiifolia</i>	<b>Sunflower</b> <i>Helianthus annuus</i>	<b>Velvetleaf</b> <i>Abutilon theophrasti</i>

**PERENNIAL GRASSES**

**Bermudagrass**

*Cynodon dactylon*

**Johnsongrass**

*Sorghum halepense*

**Smutgrass**

*Sporobolus poiretii*

**Vaseygrass**

*Paspalum urvillei*

**Guineagrass**

*Panicum maximum*

**PERENNIAL BROADLEAVES**

**Dogbane, hemp**

*Apocynum cannabinum*

**Milkweed**

*Asclepias syriaca*

**Nightshade, silverleaf**

*Solanum elaeagnifolium*

**Thistle, Canada**

*Cirsium arvense*

**WEEDS CONTROLLED**

This herbicide controls many annual and perennial grasses and broadleaf weeds.

**APPLICATIONS RATE TABLE**

For annual and perennial weeds and woody brush

METHOD OF APPLICATION	APPLICATION RATE	SPRAY VOLUME (Gallons/Acre)
<b>Broadcast</b> Aerial Ground	4 fluid ounces to 10 quarts per acre	5 to 30 3 to 100
<b>Spray-to-Wet</b> Handgun, Backpack, Mistblower	1 to 2 percent by volume	spray-to-wet
<b>Low Volume Directed Spray*</b> Handgun Backpack	5 to 10 percent by volume	partial coverage

\*For low volume directed spray applications, coverage should be uniform with at least 50 percent of the foliage contacted. For best results, coverage of the top one-half of the plant is important.

**NON-AGRICULTURAL USES**

When applied as directed under the conditions described, this product will control the following annual weeds. See "APPLICATION RATES TABLE" for specified spray volumes.

Barley; Barnyardgrass; Bluegrass (Annual, Bulbous) ; Brome, downy; Buttercup; Cheatgrass; Chickweed (Common, Mouseear) ; Cocklebur; Corn; Crabgrass; Dwarf dandelion; Falseflax, smallseed; Filaree; Foxtail; Foxtail, Carolina; Geranium, Carolina; Goatgrass, jointed; Goosegrass; Groundsel, common; Henbit; Horseweed/Marestail; Johnsongrass, seedling; Lambsquarters, common; Morningglory; Mustard (Blue, Tansy, Tumble, Wild) ; Oats, wild; Panicum (fall, Texas) ; Pennycress, field; Pigweed (Redroot, Smooth) ; Primrose, cutleaf evening; Pusley, Florida; Rice, red; Rocket, London; Rye; Ryegrass, Italian; Sandbur, field; Shattercane; Shepherdspurse; Sicklepod; Signalgrass, broadleaf; Spanishneedles; Sprangletop; Spurge, annual; Spurry, umbrella; Stinkgrass; Teaweed; Wheat; Witchgrass.

**AGRICULTURAL USES**

Apply to actively growing grass and broadleaf weeds. To prevent seed production, applications should be made prior to seedhead formation. This product does not provide residual control; therefore, delay application until maximum weed emergence. Repeat treatments may be necessary to control later germinating weeds. For maximum agronomic benefit, apply when weeds are 6 inches or less in height. Allow at least 3 days after treatment before tillage.

**LOW-VOLUME BROADCAST APPLICATION (LOW-RATE TECHNOLOGY)**

When applied as directed under the conditions described, this product will control the annual weeds listed below in the "ANNUAL WEEDS RATE TABLE" when:

1. Apply in sufficient volume of water to ensure thorough coverage.

**NOTE**

- Do not tank-mix with soil residual herbicides when using these rates unless otherwise specified.
- For weeds that have been mowed, grazed or cut, allow regrowth to occur prior to treatment.
- Refer to the "TANK MIXTURES" portion of this section for control of additional broadleaf weeds.

**ANNUAL WEEDS RATE TABLE 1**

<b>WEED SPECIES</b>	<b>MAXIMUM HEIGHT/LENGTH (Inches)</b>	<b>USE RATE* (Fluid Ounces/Acre)</b>
Barley	12	12
Barnyardgrass	6 [0 to 4 4 to 6	12 16 <sup>1</sup> 24 <sup>1</sup>
Bluegrass, bulbous	6	16
Bluegrass, annual	6	12
Brome, downy**	6	12
Buttercup	12	16
Cheat	6	16
Chickweed, common	6	16
Chickweed, mouseear	6	16
Cocklebur	12	16
Corn	6	16
Crabgrass	12	16
Dwarf dandelion	12	16
Falseflax, smallseed	12	16
Filaree	12	48
Foxtail	12	8
Foxtail, Carolina	12	16
Geranium, Carolina	12	32
Goatgrass, jointed	6	16
Goosegrass	12	32
Groundsel, common	6	16
Henbit	6	16
Horseweed/Marestail	6 7 to 12	16 24
Johnsongrass, seedling	12	16
Lambsquarters, common	6 7 to 12	12 24
Morningglory	2	16
Mustard, blue	6	12
Mustard, tansy	6	12
Mustard, tumble	6	12
Mustard, wild	6	12
Oats, wild	12	16
Panicum, fall	12	16
Panicum, Texas	12	16
Pennycress, field	6	16
Pigweed, redroot	12	16
Pigweed, smooth	12	16
Primrose, cutleaf evening	12	32
Pusley, Florida	12	32
Rice, red	4	32
Rocket, London	6	16
Rye	12	12

WEED SPECIES	MAXIMUM HEIGHT/LENGTH (Inches)	USE RATE* (Fluid Ounces/Acre)
Ryegrass, Italian	6	16
Shattercane	12	12
Shepherdspurse	6	16
Sicklepod	2 3 to 4 5 to 12	16 24 32
Signalgrass, broadleaf	4	24
Spanishneedles	5 to 12	32
Sprangletop	6 12	32 48
Spurge, annual	6 7 to 12	16 24
Spurry, umbrella	6	12
Stinkgrass	12	12
Teaweed	4	32
Wheat	18	12
Witchgrass	12	16

<sup>1</sup>Use these rates to control barnyardgrass in Alabama, Arkansas, Mississippi, Missouri, Louisiana and Texas for preplant treatments.

\*For those rates less than 32 fluid ounces per acre, this product at rates up to 32 fluid ounces per acre may be used where heavy weed densities exist.

\*\*For control in no-till systems, use 16 fluid ounces per acre.

#### HIGH-VOLUME BROADCAST APPLICATIONS

When applied as directed under the conditions described, this product will control the weeds listed below when water carrier volumes are 10 gallons or more for sufficient coverage.

Apply 1 to 1.5 quarts of this product per acre plus additional surfactant according to the manufacturer's rates and specifications for use of the surfactant. Use 1 quart per acre if weeds are less than 6 inches tall and 1.5 quarts per acre if weeds are over 6 inches tall. If weeds have been mowed, grazed or cut, allow adequate time for new growth to reach specified stages prior to treatment. These rates will also provide control of weeds listed in the "LOW-VOLUME BROADCAST APPLICATION" section.

#### WEED SPECIES

**Balsamapple\***  
*Momordica charantia*

**Fleabane, hairy**  
*Conyza bonariensis*

**Panicum**  
*Panicum* spp.

**Sowthistle, annual**  
*Sonchus oleraceus*

**Bassia, fivehook**  
*Bassia hyssopifolia*

**Fleabane**  
*Erigeron* spp.

**Ragweed, common**  
*Ambrosia artemisiifolia*

**Sunflower**  
*Helianthus annuus*

**Brome**  
*Bromus* spp.

**Kochia**  
*Kochia scoparia*

**Ragweed, giant**  
*Ambrosia trifida*

**Thistle, Russian**  
*Salsola kali*

**Fiddleneck**  
*Amsinckia* spp.

**Lettuce, prickly**  
*Lactuca serriola*

**Smartweed, Pennsylvania**  
*Polygonum pennsylvanicum*

**Velvetleaf**  
*Abutilon theophrasti*

\*Apply with hand-held equipment only.

#### PERENNIAL WEEDS

Apply this product as follows to control or destroy most perennial weeds:

When applied as directed under the conditions described, this product WILL CONTROL the following PERENNIAL WEEDS:

Alfalfa; Alligatorweed\*; Anise (fennel); Artichoke, Jerusalem; Bahiagrass; Bentgrass\*; Bermudagrass; Bermudagrass, water (knotgrass)\*\*; Bindweed, field; Bluegrass, Kentucky; Cattail; Clover (Red, White); Cogongrass; Dallisgrass; Dandelion; Dock, curly; Dogbane, hemp; Fescues; Fescue, tall; Guineagrass; Horsenettle; Horseradish; Ice plant; Mullein, common; Napiergrass; Nightshade, silverleaf; Nutsedge (Purple, Yellow); Orchardgrass; Pampasgrass; Paragrass; Phragmites\*; Poison hemlock; Quackgrass; Redvine\*; Reed, giant; Ryegrass, perennial; Smartweed, swamp; Spurge, leafy\*; Starthistle, yellow; Sweet potato wild\*; Thistle, Canada; Thistle, artichoke; Timothy; Torpedograss\*; Trumpetcreeper; Vaseygrass; Velvetgrass; Wheatgrass, western.

\*Partial control.

\*\*This product is not registered in California for use on water Bermudagrass.

### PERENNIAL WEEDS RATE TABLE

Apply to actively growing perennial weeds. See "APPLICATION RATES TABLE" for specific spray volumes. For other perennials listed on this label and not found in the table below, apply 3 to 5 quarts of this product per acre. Apply when actively growing and most have reached early head or early bud stage of growth. For agricultural uses, allow 7 days after application before tillage.

Additional surfactant may be used. If additional surfactant is to be used follow the manufacturer's rates and instructions for use of the surfactant.

PERENNIAL WEEDS	USE RATE Broadcast Spray (Quarts/Acre)	USE RATE Hand Held Equipment (Percent Solution)
<b>Alfalfa</b>	1	—
	Make application after the last hay cutting in the fall. Allow alfalfa to regrow to a height of 6 to 8 inches or more prior to treatment. For agricultural uses applications should be followed with deep tillage at least 7 days after treatment, but before soil freeze-up.	
<b>Alligatorweed</b>	4	1.5
	Partial control. Apply when most of the plants are in bloom. Repeat applications will be required to maintain such control.	
<b>Anise (fennel)</b>	—	1 to 2
	Apply as a spray-to-wet treatment. Optimum results are obtained when plants are treated at the bud to full-bloom stage of growth. Repeat applications may be needed in succeeding years to control plants arising from seeds.	
<b>Artichoke, Jerusalem</b>	3 to 5	—
	Apply when actively growing and most have reached early head or early bud stage of growth. For agricultural uses allow 7 or more days after application before tillage.	
<b>Bahiagrass</b>	3 to 5	—
	Apply when actively growing and most have reached early head or early bud stage of growth. For agricultural uses allow 7 or more days after application before tillage.	
<b>Bentgrass</b>	1.5	—
	For suppression in grass seed production areas. For ground applications only. Ensure entire crown area has resumed growth prior to a fall application. Bentgrass should be actively growing and have at least 3 inches of growth. Tillage prior to treatment should be avoided. Tillage 7 to 10 days after application for best results. Failure to use tillage after treatment may result in unacceptable control.	
<b>Bermudagrass</b>	3 to 5	—
	For control, apply 5 quarts of this product per acre. For partial control, apply 3 quarts per acre. Treat when Bermudagrass is actively growing and seedheads are present. Retreatment may be necessary to maintain control. Allow 7 or more days after application before tillage.	
<b>Bermudagrass, water (knotgrass)**</b>	1 to 1.5	—
	Apply when water Bermudagrass is actively growing and 12 to 18 inches in length. <b>For agricultural uses</b> apply 1.5 quarts of this product per acre. Allow 7 or more days before tilling, flushing or flooding the field. <b>Fall applications only:</b> - Fallow field should be tilled prior to application. Apply prior to frost on water Bermudagrass that is actively growing and 12 to 18 inches in length. For agricultural uses apply 1 quart of this product per acre. Allow 7 or more days before tillage.	

(continued)



PERENNIAL WEEDS	USE RATE Broadcast Spray (Quarts/Acre)	USE RATE Hand Held Equipment (Percent Solution)
Bindweed, field	1 to 5	—
<p>For control, apply 4 to 5 quarts of this product per acre west of the Mississippi River and 3 to 4 quarts east of the Mississippi River. Apply when the weeds are actively growing and are at or beyond full bloom. Do not treat when weed is under drought stress as good soil moisture is necessary for active growth. For best results, apply in late summer or fall. Fall treatments must be applied before a killing frost. Allow 7 or more days after application before tillage.</p> <p>Also for control, apply 2 quarts of this product plus 0.5 pound a.i. of Dicamba per acre. At these rates, apply using ground application only.</p> <p><b>Agricultural Uses:</b> The following tank mixtures with 2,4-D may be applied using aerial application equipment (except in California) in fallow and reduced tillage systems only. For suppression on irrigated agricultural land, apply 1 to 2 quarts of this product plus 1 pound a.i. of 2,4-D per acre with ground equipment only. Applications should be made following harvest or in fall fallow ground when the bindweed is actively growing and the majority of runners are 12 inches or more in length. The use of at least one irrigation will promote active bindweed growth.</p> <p>For suppression, apply 16 fluid ounces of this product plus 0.5 pound a.i. of 2,4-D per acre in 3 to 10 gallons of water per acre for ground applications and 3 to 5 gallons of water per acre for aerial applications.</p> <p>Applications should be delayed until maximum emergence has occurred and when vines are between 6 to 18 inches in length.</p> <p>In California only, apply 1 to 5 quarts of this product per acre. Actual rate needed for suppression or control will vary within this range depending on local conditions. For suppression on irrigated land where annual tillage is performed, apply 1 quart of this product per acre plus surfactant. Apply to actively growing bindweed that has reached a length of 12 inches or greater. Allow maximum weed emergence and runner growth. Do not treat when weeds are under drought stress as good soil moisture is necessary for active growth. For agricultural uses allow 3 or more days after application before tillage.</p>		
Bluegrass, Kentucky	2	—
<p>Apply when the grasses are actively growing and most plants have reached boot-to-early seedhead stage of development. For partial control in pasture or hay crop renovation, apply 1 to 1.5 quarts of this product per acre. Apply to actively growing plants when most have reached 4 to 12 inches in height. Allow 7 or more days after application before tillage.</p>		
Blueweed, Texas	3 to 5	—
<p>Apply 4 to 5 quarts of this product per acre west of the Mississippi River and 3 to 4 quarts per acre east of the Mississippi River. Apply when weed is actively growing and is at or beyond full bloom. Do not treat when weed is under drought stress as good soil moisture is necessary for active growth. New leaf development indicates active growth. For best results, apply in late summer or fall. Fall treatments must be applied before a killing frost. Allow 7 or more days after application before tillage.</p>		
Brackenfern	3 to 4	1 to 1.5
<p>Apply to fully expanded fronds which are at least 18 inches long.</p>		
Bromegrass, smooth	2	—
<p>Apply when the grasses are actively growing and most plants have reached boot-to-early seedhead stage of development. For partial control in pasture or hay crop renovation, apply 1 to 1.5 quarts of this product per acre. For agricultural uses apply to actively growing plants when most have reached 4 to 12 inches in height. Allow 7 or more days after application before tillage.</p>		
Bursage, woollyleaf	1 to 2 plus 1 pint Dicamba	—
<p>For control, apply 2 quarts of this product plus 1 pint of Dicamba per acre. For partial control, apply 1 quart of this product plus 1 pint of Dicamba per acre. Apply when plants are producing new active growth which has been initiated by moisture for at least 2 weeks and when plants are at or beyond flowering.</p>		

(continued)

PERENNIAL WEEDS	USE RATE Broadcast Spray (Quarts/Acre)	USE RATE Hand Held Equipment (Percent Solution)
Canarygrass, reed	2 to 3	—
	For best results, apply to actively growing plants when most have reached the boot-to-head stage of growth. Allow 7 or more days after application before tillage.	
Cattail	3 to 5	—
	Apply when actively growing and most have reached early head to early bud stage of growth. Allow 7 or more days after application before tillage.	
Clover: Red White	3 to 5	—
	Apply when actively growing and most have reach early head or early bud stage of growth. Allow 7 or more days after application before tillage.	
Cogongrass	3 to 5	—
	Apply when Cogongrass is at least 18 inches tall and actively growing in late summer or fall. Due to uneven stages of growth and the dense nature of vegetation preventing good spray coverage, repeat treatments may be necessary to maintain control. Allow 7 or more days after application before tillage or mowing.	
Dallisgrass	3 to 5	—
	Apply when actively growing and most have reached early head or early bud stage of growth. Allow 7 or more days after application before tillage.	
Dandelion	3 to 5	—
	Apply when plants are actively growing and most have reached the early bud stage of growth. Allow 7 or more days after application before tillage. Also for control, apply 16 fluid ounces of this product plus 0.5 pound a.i. 2,4-D per acre.	
Dock, curly	3 to 5	—
	Apply when plants are actively growing and most have reached the early bud stage of growth. Allow 7 or more days after application before tillage. Also for control, apply 16 fluid ounces of this product plus 0.5 pound a.i. 2,4-D per acre.	
Dogbane, hemp	4	—
	Apply when actively growing and when most weeds have reached the late bud to flower stage of growth. Following crop harvest or mowing, allow weeds to regrow to a mature stage prior to treatment. For best results, apply in late summer or fall. Allow 7 or more days after application before tillage. For suppression, apply 16 fluid ounces of this product plus 0.5 pound a.i. of 2,4-D per acre. Delay applications until maximum emergence of dogbane has occurred.	
Fescue (except tall)	3 to 5	—
	Apply when actively growing and most have reached early head or early bud stage of growth. Allow 7 or more days after application before tillage.	
Fescue, tall	1 to 5	—
	Apply 3 quarts of this product in per acre to actively growing plants when most have reached boot-to-early seedhead stage of development. <b>Fall applications only:</b> Apply 1 quart of this product per acre. Apply to fescue in the fall when actively growing and plants have 6 to 12 inches of new growth. A sequential application of 1 pint per acre of this product plus nonionic surfactant will improve long-term control and control seedlings germinating after fall treatments or the following spring. Allow 7 or more days after application before tillage.	
Guineagrass	3	1
	Apply to actively growing guineagrass when most has reached at least the 7-leaf stage of growth. Ensure thorough coverage when using hand-held equipment. Allow 7 or more days after application before tillage.	

(continued)

<b>PERENNIAL WEEDS</b>	<b>USE RATE Broadcast Spray (Quarts/Acre)</b>	<b>USE RATE Hand Held Equipment (Percent Solution)</b>
<b>Horsenettle</b>	3 to 5	—
	Apply when actively growing and most have reached early head or early bud stage of growth. Allow 7 or more days after application before tillage.	
<b>Horseradish</b>	4	—
	Apply when actively growing and when most weeds have reached the late bud to flower stage of growth. Following crop harvest or mowing, allow weeds to regrow to a mature stage prior to treatment. For best results, apply in late summer or fall. Allow 7 or more days after application before tillage.	
<b>Ice plant</b>	—	1.5 to 2
	Apply to plants that are actively growing. Thorough coverage is necessary for best control.	
<b>Johnsongrass</b>	0.5 to 3	1
	In non-cultivated, or areas where annual tillage (no-till) is not performed, apply 2 to 3 quarts of this product acre. In annual cropping systems apply 1 to 2 quarts of this product per acre. Use 2 quarts of this product when applying 10 to 40 gallons of water per acre. For best results, apply to actively growing plants when most have reached the boot-to-head stage of growth or in the fall prior to frost. Do not tank mix with residual herbicides when using the 1 quart per acre rate. Allow 7 or more days after application before tillage. For burndown of Johnsongrass, apply 1 pint per acre before the plants reach a height of 12 inches. For this use, allow at least 3 days after treatment before tillage. Spot treatment (partial control or suppression) - Apply a 1 percent solution of this product when Johnsongrass is 12 to 18 inches in height. Coverage should be uniform and complete.	
<b>Kikuyugrass</b>	2 to 3	—
	Spray when most kikuyugrass is at least 8 inches in height (3- or 4-leaf stage of growth) and actively growing. Allow 3 or more days after application before tillage.	
<b>Knapweed</b>	2 to 3	—
	Apply when actively growing and when most weeds have reached the late bud to flower stage of growth. Following crop harvest or mowing, allow weeds to regrow to a mature stage prior to treatment. For best results, apply in late summer or fall. Allow 7 or more days after application before tillage.	
<b>Lantana</b>	—	1 to 1.25
	Apply to actively growing lantana at or beyond the bloom stage of growth. Use the higher application rate for plants that have reached the woody stage of growth. Allow 7 or more days after application before tillage.	
<b>Lespedeza</b>	3 to 5	—
	Apply when actively growing and most have reached early head or early bud stage of growth. Allow 7 or more days after application before tillage.	
<b>Milkweed, common</b>	3	—
	Apply when actively growing and most of the milkweed has reached the late bud to flower stage of growth. Following small grain harvest or mowing, allow milkweed to regrow to a mature stage prior to treatment. Allow 7 or more days after application before tillage.	
<b>Muhly, wirestem</b>	1 to 2	—
	Use 1 quart of this product per acre. Use 2 quarts per acre in pasture, sod, or non-cultivated areas. Spray when the wirestem muhly is 8 inches or more in height and actively growing. Do not till between harvest and fall applications or in the fall or spring prior to spring applications. This product will not provide residual control of wirestem muhly from seeds which germinate after application of this product. Do not tank mix with residual herbicides when using the 1 quart per acre rate. Allow 3 or more days after application before tillage.	
<b>Mullein, common</b>	3 to 5	—
	Apply when actively growing and most have reached early head or early bud stage of growth. Allow 7 or more days after application before tillage.	

(continued)

PERENNIAL WEEDS	USE RATE Broadcast Spray (Quarts/Acre)	USE RATE Hand Held Equipment (Percent Solution)
Napiergrass	3 to 5	—
	Apply when actively growing and most have reached early head or early bud stage of growth. Allow 7 or more days after application before tillage.	
Nightshade, silverleaf	2	—
	For control. Applications should be made when at least 60 percent of the plants have berries. Fall treatments must be applied before a killing frost. Do not treat when weed is under drought stress as good soil moisture is necessary for active growth. Allow 7 or more days after application before tillage.	
Nutsedge: Purple Yellow	0.5 to 3	1 to 2
	<p>Apply 3 quarts of this product per acre as a broadcast spray, or apply a 1 to 2 percent solution from hand-held equipment to control existing nutsedge plants and immature nutlets attached to treated plants. Treat when plants are in flower or when new nutlets can be found at rhizome tips. Nutlets which have not germinated will not be controlled and may germinate following treatment. Repeat treatments will be required for long-term control of ungerminated tubers.</p> <p>Sequential applications of 1 to 2 quarts of this product per acre will provide control. Make applications when a majority of the plants are in the 3- to 5-leaf stage (less than 6 inches tall). Repeat this application, as necessary, when newly emerging plants reach the 3- to 5-leaf stage. Subsequent applications will be necessary for long-term control.</p> <p>For suppression to partial control of existing plants, apply 1 pint to 2 quarts of this product per acre. Treat when plants have 3 to 5 leaves and most are less than 6 inches tall. Repeat treatments will be required to control subsequent emerging plants or regrowth of existing plants. Wait 7 days after treatment before tillage or mowing.</p>	
Orchardgrass	1 to 2	—
	<p>Apply 2 quarts of this product when the grasses are actively growing and most plants have reached boot-to-early seedhead stage of development. For partial control in pasture or hay crop renovation, apply 1 to 1.5 quarts of this product per acre. Apply to actively growing plants when most have reached 4 to 12 inches in height. Allow 7 or more days after application before tillage.</p> <p><b>Sods going to no-till corn:</b> Apply 1 to 1.5 quarts of this product per acre. Apply to orchardgrass that is a minimum of 12 inches tall for spring applications and 6 inches tall for fall applications. Allow at least 3 days following application before planting. A sequential application of atrazine will be necessary for optimum results.</p>	
Pampasgrass	—	1.5 to 2
	Apply to plants that are actively growing. Pampasgrass should be at or beyond the boot stage of growth. Thorough coverage is necessary for best control.	
Paragrass	3 to 5	—
	Apply when actively growing and most have reached early head or early bud stage of growth. Allow 7 or more days after application before tillage.	
Phragmites	3 to 5	1 to 2
	For partial control of phragmites in Florida and the counties of other states bordering the Gulf of Mexico, apply 5 quarts per acre as a broadcast spray or apply a 2 percent solution from hand-held equipment. In other areas of the U.S., apply 3 quarts per acre as a broadcast spray or apply a 1 percent solution from hand-held equipment for partial control. For best results, treat during late summer or fall months or when plants are actively growing and in full bloom. Treatment before or after this stage may lead to reduced control. Due to the dense nature of the vegetation, which may prevent good spray coverage or uneven stages of growth, repeat treatments may be necessary to maintain control. Visual control symptoms will be slow to develop.	
Poison hemlock	—	1 to 2
	Apply as a spray-to-wet treatment. Optimum results are obtained when plants are treated at the bud to full-bloom stage of growth. Repeat applications may be needed in succeeding years to control plants arising from seeds.	

(continued)

PERENNIAL WEEDS	USE RATE Broadcast Spray (Quarts/Acre)	USE RATE Hand Held Equipment (Percent Solution)
Quackgrass	1 to 2	—
	<p><b>In Annual Cropping Systems, or in Pastures and Sods Followed by Deep Tillage:</b> Apply 1 to 2 quarts of this product per acre. Do not tank mix with residual herbicides when using the 1 quart rate. Spray when quackgrass is 6 to 8 inches in height and actively growing. Do not till between harvest and fall applications or in fall or spring prior to spring application. In pastures or sods, for best results use a moldboard plow. Allow 3 or more days after application before tillage.</p> <p><b>Pasture or Sod or Other Non-cultivated Areas Where Deep Tillage is Not Planned Following Application:</b> Apply 2 to 3 quarts per acre. Spray when the quackgrass is greater than 8 inches tall and actively growing. Do not till between harvest and fall application or in fall or spring prior to spring application. Allow 3 or more days after application before tillage.</p>	
Redvine	3/4 to 2	—
	<p>For suppression, apply 24 fluid ounces of this product per acre at each of two applications 7 to 14 days apart or a single application of 2 quarts per acre. Apply in late September or early October to actively growing plants, which are at least 18 inches tall and have been growing 45 to 60 days since the last tillage operation. Make applications at least 1 week before a killing frost.</p>	
Reed, giant	—	2
	<p>For control. Apply when plants are actively growing. Best results are obtained when applications are made in late summer to fall.</p>	
Ryegrass, perennial	1 to 3	1
	<p>In non-cultivated, or areas where annual tillage (no-till) is not performed, apply 2 to 3 quarts of this product per acre. In annual cropping systems apply 1 to 2 quarts of this product per acre. For best results, apply to actively growing plants when most have reached the boot-to-head stage of growth or in the fall prior to frost. Do not tank-mix with residual herbicides when using the 1 quart per acre rate. Allow 7 or more days after application before tillage.</p>	
Smartweed, swamp	3 to 5	—
	<p>Apply 3 to 5 quarts of this product per acre when plants are actively growing and most have reached the early bud stage of growth. Allow 7 or more days after application before tillage.</p> <p>Also for control, apply 16 fluid ounces of this product plus 0.5 pound active ingredient of 2,4-D per acre in the late summer or fall. Apply when plants are actively growing and most have reached the early bud stage of growth. Allow 7 or more days after application before tillage.</p>	
Spurge, leafy	1/2	—
	<p>For suppression, apply 1/2 quart of this product plus 0.5 pound active ingredient 2,4-D per acre in the late summer or fall. Apply when plants are actively growing. If mowing has occurred prior to treatment, apply when most of the plants are 12 inches tall. Allow 7 or more days after application before tillage.</p>	
Starthistle, yellow	2	2
	<p>Best results are obtained when applications are made during periods of active growth, including the rosette, bolting and early flower stages.</p>	
Sweet potato, wild	—	3
	<p>Apply to actively growing weeds that are at or beyond the bloom stage of growth. Repeat applications may be required. Allow the plant to reach the specified stage of growth before retreatment. Allow 7 or more days before tillage.</p>	
Thistle, artichoke	—	2
	<p>Apply to actively growing weeds that are at or beyond the bloom stage of growth. Repeat applications may be required. Allow the plant to reach the specified stage of growth before retreatment. Allow 7 or more days before tillage.</p>	

(continued)



PERENNIAL WEEDS	USE RATE Broadcast Spray (Quarts/Acre)	USE RATE Hand Held Equipment (Percent Solution)
<b>Thistle, Canada</b>	1 to 3	—
	Apply 2 to 3 quarts of this product per acre. Apply to actively growing thistles when most are at or beyond the bud stage of growth. After harvest, mowing or tillage in the late summer or fall, allow at least 4 weeks for initiation of active growth and rosette development prior to the application of this product. Fall treatments must be applied before a killing frost. Allow 3 or more days after application before tillage. For suppression of Canada thistle, apply 1 quart per acre of this product, or 1 pint of this product plus 0.5 pound a.i. 2,4-D per acre. In the late summer or fall after harvest, mowing or tillage. Allow rosette regrowth to a minimum of 6 inches in diameter before treating. Applications can be made as long as leaves are still green and plants are actively growing at the time of application. Allow 3 or more days after application before tillage.	
<b>Timothy</b>	2 to 3	—
	For best results, apply to actively growing plants when most have reached the boot-to-head stage of growth. Allow 7 or more days after application before tillage.	
<b>Torpedograss</b>	4 to 5	—
	Partial control. Apply to actively growing torpedograss when most plants are at or beyond the seedhead stage of growth. Repeat application will be required to maintain control. Fall treatments must be applied before frost. Allow 7 or more days after application before tillage.	
<b>Trumpetcreeper</b>	2	—
	For control. Apply to actively growing plants in late September or October, which are at least 18 inches tall and have been growing 45 to 60 days since the last tillage operation. Make applications at least 1 week before a killing frost.	
<b>Vaseygrass</b>	3 to 5	—
	Apply when actively growing and most have reach early head or early bud stage of growth. Allow 7 or more days after application before tillage.	
<b>Velvetgrass</b>	3 to 5	—
	Apply when actively growing and most have reached early head or early bud stage of growth. Allow 7 or more days after application before tillage.	
<b>Wheatgrass, western</b>	2 to 3	—
	For best results, apply to actively growing plants when most have reached the boot-to-head stage of growth. Allow 7 or more days after application before tillage.	

#### TANK MIXTURES

This product can be tank mixed with additional products to provide residual control of many of the listed hard to control problem species. The addition of specified rates of 2,4-D or Dicamba based products will provide improved control of many annual and perennial weeds. This product may be tank-mixed with other herbicides provided the specific product is registered for use on these sites. When tank mixing, read and observe applicable use directions, precautions and limitations on the respective product labels. Use according to the most restrictive label directions for each product in the mixture.

#### WOODY BRUSH

When applied as directed under the conditions described, this product CONTROLS or PARTIALLY CONTROLS the following woody brush, plants and trees:

Alder; Ash\*; Aspen, quaking; Bearmat (Bearclover)\*; Beech\*; Birch; Blackberry; Blackgum\*; Bracken\*; Broom (French, Scotch); Buckwheat, California\*; Cascara\*; Catsclaw\*; Ceanothus\*; Chamise; Cherry (Bitter, Black, Pin) ; Coyote brush; Creeper, Virginia\*; Dewberry; Dogwood\*; Elderberry; Elm\*; Eucalyptus; Gorse\*; Hasardia\*; Hawthorn; Hazel; Hickory\*; Holly, Florida/Brazilian Peppertree\*; Honeysuckle; Hornbeam, American\*; Kudzu; Locust, black\*; Madrone\*; Manzanita\*; Maple (red\*\*, sugar, vine\*) ; Monkey Flower\*; Oak (Black\*, Northern Pin, Post, Red, Southern Red, White\*); Persimmon\*; Pine\*; Poison Ivy; Poison Oak; Poplar, yellow\*; Raspberry; Redbud, eastern\*; Rose, multiflora; Russian-olive<sup>1</sup>\*; Sage (Black, White\*) ; Sagebrush, California; Salmonberry; Salt cedar\*; Sassafras\*; Sourwood\*; Sumac (Poison\*, Smooth\*, Winged\*); Sweetgum; Swordfern\*; Tallowtree, Chinese; Tan Oak\*; Thimbleberry; Tobacco, tree\*; Trumpetcreeper; Waxmyrtle, southern\*; Willow.

\* Partial control

\*\* See below for control or partial control instructions.

<sup>1</sup> This product is not registered in California for use on Russian-olive.

**NOTE:** If brush has been mowed or tilled or trees have been cut, do not treat until regrowth has reached the specified stages of growth. Apply this product when plants are actively growing and, unless otherwise directed, after full leaf expansion. Use the higher rate for larger plants and/or dense areas of growth. On vines, use the higher rate for plants that have reached the woody stage of growth. Best results are obtained when application is made in late summer or fall after fruit formation.

In arid areas, best results are obtained when application is made in the spring to early summer when brush species are at high moisture content and are flowering.

Ensure thorough coverage when using hand-held equipment. Symptoms may not appear prior to frost or senescence with fall treatments. Allow 7 or more days after application before tillage, mowing or removal. Repeat treatments may be necessary to control plants regenerating from underground parts or seed. Some autumn colors on undesirable deciduous species are acceptable provided no major leaf drop has occurred. Reduced performance may result if fall treatments are made following a frost.

See “DIRECTIONS FOR USE” and “MIXING, ADDITIVES and APPLICATION INSTRUCTIONS” sections of this label for labeled uses and specific application instructions.

### WOODY BRUSH RATE TABLE

See “APPLICATION RATES TABLE” for specific spray volumes.

For Other Woody Brush listed on this label but not found in the table below: For partial control, apply 2 to 5 quarts of this product per acre as a broadcast spray or as a 1 to 2 percent solution with hand-held equipment. For difficult to control perennial weeds and woody brush and trees, where plants are growing under stressed conditions or where infestations are dense, **RAZOR PRO HERBICIDE** may be used at 5 to 10 quarts per acre for enhanced results. **The annual maximum use rate for RAZOR PRO HERBICIDE is 10.6 quarts per acre per year.**

Additional surfactant may be used. If additional surfactant is to be used follow the manufacturer’s rates and instructions for use of the surfactant.

WOODY BRUSH	USE RATE Broadcast Spray (Quarts/Acre)	USE RATE Hand Held Equipment (Percent Solution)
<b>Alder</b>	For control. 3 to 4	1 to 1.5
<b>Ash</b>	For partial control. 2 to 5	1 to 2
<b>Aspen, quaking</b>	For control. 2 to 3	1 to 1.5
<b>Bearmat (bearclover)</b>	For partial control. 2 to 5	1 to 2
<b>Beech</b>	For partial control. 2 to 5	1 to 2
<b>Birch</b>	For control. 2	1
<b>Blackberry</b>	For control. 3 to 4	1 to 1.5
	Make application after plants have reached full leaf maturity. Best results are obtained when applications are made in late summer or fall. After berries have set or dropped in late fall, blackberry can be controlled by applying a 3/4 percent solution of this product with hand-held equipment. For control of blackberries after leaf drop and until killing frost or as long as stems are green, apply 3 to 4 quarts of this product in 10 to 40 gallons of water per acre.	
<b>Blackgum</b>	For partial control. 2 to 5	1 to 2
<b>Bracken</b>	For partial control. 2 to 5	1 to 2
<b>Broom: French and Scotch</b>	For control.	1.5 to 2
<b>Buckwheat, California</b>	For partial control.	1 to 2
	Thorough coverage of foliage is necessary for best results.	
<b>Cascara</b>	For partial control. 2 to 5	1 to 2
<b>Catsclaw</b>	For partial control.	1 to 1.5
<b>Ceanothus</b>	For partial control. 2 to 5	1 to 2
<b>Chamise</b>	For control.	1
	Thorough coverage of foliage is necessary for best results.	
<b>Cherry: Bitter, Black and Pin</b>	For control. 2 to 3	1 to 1.5
<b>Coyote brush</b>	For control.	1.5 to 2
	Apply when at least 50 percent of the new leaves are fully developed.	

(continued)

<b>WOODY BRUSH</b>	<b>USE RATE Broadcast Spray (Quarts/Acre)</b>	<b>USE RATE Hand Held Equipment (Percent Solution)</b>
<b>Creepers, Virginia</b>	For partial control. 2 to 5	1 to 2
<b>Dewberry</b>	For control. 3 to 4	1 to 1.5
<b>Dogwood</b>	For partial control. 2 to 5	1 to 2
<b>Elderberry</b>	For control. 2	1
<b>Elm</b>	For partial control. 2 to 5	1 to 2
<b>Eucalyptus</b>	For control.	2
	Apply when eucalyptus resprouts are 6 to 12 feet tall. Ensure complete coverage. Apply when plants are growing actively. Avoid application to drought-stressed plants.	
<b>Gorse</b>	For partial control. 2 to 5	1 to 2
<b>Hasardia</b>	For partial control.	1 to 2
	Thorough coverage of foliage is necessary for best results.	
<b>Hawthorn</b>	For control. 2 to 3	1 to 1.5
<b>Hazel</b>	For control. 2	1
<b>Hickory</b>	For partial control. 2 to 5	1 to 2
<b>Holly, Florida/Brazilian Peppertree</b>	For partial control. 2 to 5	1 to 2
<b>Honeysuckle</b>	For control. 3 to 4	1 to 1.5
<b>Hornbeam, American</b>	For partial control. 2 to 5	1 to 2
<b>Kudzu</b>	For control. 4	2
	Repeat applications will be required to maintain control.	
<b>Locust, black</b>	For partial control. 2 to 5	1 to 2
<b>Madrone, resprouts</b>	For suppression or partial control.	2
	Apply to resprouts less than 3 to 6 feet tall. Best results are obtained with spring/early summer treatments.	
<b>Manzanita</b>	For partial control. 2 to 5	1 to 2
<b>Maple, red</b>	For control. 2 to 4	1 to 1.5
	Apply as a 1 to 1.5 percent solution when at least 50 percent of the new leaves are fully developed. For partial control, apply 2 to 4 quarts of this product per acre.	
<b>Maple, sugar</b>	For control.	1 to 1.5
	Apply when at least 50 percent of the new leaves are fully developed.	
<b>Maple, vine</b>	For partial control. 2 to 5	1 to 2
<b>Monkey flower</b>	For partial control.	1 to 2
	Thorough coverage of foliage is necessary for best results.	
<b>Oak: Black and White</b>	For partial control. 2 to 5	1 to 2
<b>Oak: Northern Pin and Red</b>	For control.	1 to 1.5
	Apply when at least 50 percent of the new leaves are fully developed.	
<b>Oak, post</b>	For control. 3 to 4	1 to 1.5
<b>Oak, southern red</b>	For control. 2 to 3	1 to 1.5
<b>Persimmon</b>	For partial control. 2 to 5	1 to 2
<b>Pine</b>	For partial control. 2 to 5	1 to 2
<b>Poison Ivy</b>	For control. 4 to 5	2
	Repeat applications may be required to maintain control. Fall treatments must be applied before leaves lose green color.	

(continued)

<b>WOODY BRUSH</b>	<b>USE RATE Broadcast Spray (Quarts/Acre)</b>	<b>USE RATE Hand Held Equipment (Percent Solution)</b>
<b>Poison oak</b>	For control. 4 to 5	2
	Repeat applications may be required to maintain control. Fall treatments must be applied before leaves lose green color.	
<b>Poplar, yellow</b>	For partial control. 2 to 5	1 to 2
<b>Raspberry</b>	For control. 3 to 4	1 to 1.5
<b>Redbud, eastern</b>	For partial control. 2 to 5	1 to 2
<b>Rose, multiflora</b>	For control. 2	1
	Treatments should be made prior to leaf deterioration by leaf-feeding insects.	
<b>Russian olive</b>	For partial control. 2 to 5	1 to 2
	This product is not registered in California for use on Russian olive.	
<b>Sage, black</b>	For control.	1
	Thorough coverage of foliage is necessary for best results.	
<b>Sage, white</b>	For partial control. 2 to 5	1 to 2
<b>Sagebrush, California</b>	For control.	1
	Thorough coverage of foliage is necessary for best results.	
<b>Salmonberry</b>	For control. 2	1
<b>Salt cedar</b>	For partial control. 2 to 5	1 to 2
<b>Sassafras</b>	For partial control. 2 to 5	1 to 2
<b>Sourwood</b>	For partial control. 2 to 5	1 to 2
<b>Sumac, Poison, Smooth and Winged</b>	For partial control. 2 to 5	1 to 2
<b>Sweetgum</b>	For control. 2 to 3	1 to 1.5
<b>Swordfern</b>	For partial control. 2 to 5	1 to 2
<b>Tallowtree, Chinese</b>	For control.	1
	Thorough coverage of foliage is necessary for best results.	
<b>Tan oak resprouts</b>	For suppression or partial control.	1
	Apply to resprouts less than 3 to 6 feet tall. Best results are obtained with fall applications.	
<b>Thimbleberry</b>	For control. 2	1
<b>Tobacco, tree</b>	For partial control.	1 to 2
	Thorough coverage of foliage is necessary for best results	
<b>Trumpet creeper</b>	For control. 2 to 3	1 to 1.5
<b>Waxmyrtle, southern</b>	For partial control. 2 to 5	1 to 2
<b>Willow</b>	For control. 3	1

## NON-CULTIVATED USES

See "PRODUCT INFORMATION" and "MIXING, ADDITIVES and APPLICATION INSTRUCTIONS" sections of this label for essential product performance information and the following "NON-CULTIVATED" sections for specific uses.

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

Repeat treatments may be necessary to control weeds regenerating from underground parts or seeds.

Do not exceed 10.6 quarts of this product per acre per year.

This product does not provide residual weed control. For subsequent weed control, follow a label approved herbicide program. Read and carefully observe the precautionary statements and all other information appearing on the labels of all herbicides used.

## INDUSTRIAL, RECREATIONAL AND PUBLIC AREAS

When applied as directed and under the conditions described in the "Weeds Controlled" section of the label booklet for this product, this herbicide will control or partially control the labeled weeds growing in the following areas: airfields; airports; alleys, lanes, trails & access roads; around commercial or industrial structures or outbuildings; around farm and ranch structures and outbuildings; around ornamental gardens; around ornamental trees & shrubs; bare ground; beaches; campgrounds; construction sites; ditch banks; drive-in theaters; driveways & ramps; dry ditches & canals; fences & fencerows; firebreaks; golf courses; gravel yards; habitat restoration & management areas; highways & roadsides (including aprons, medians, guardrails & right of ways); industrial plant sites; industrial areas; lumber yards; mulched areas; natural areas; paths and trails; parking areas; parks; paved areas; petroleum & other tank farms; pumping installations; pipeline, power, telephone & utility rights-of-way; power stations; preplant to turf & ornamental plants; railroad rights-of-way; recreation areas; refineries; resorts; schools; sidewalks; sports areas; storage areas; substations; tennis courts; uncropped farmstead areas; uncultivated non-agricultural areas; vacant lots; walkways; wastelands; & wildlife habitat areas.

For specific rates of application and instructions for control of various annual and perennial weeds and woody brush and trees, see the "WEEDS CONTROLLED" section of this label.

This product may be applied with recirculating sprayers, shielded applicators, or wiper applicators in any non-cultivated site specified on this label. See the Selective Equipment part of "APPLICATION EQUIPMENT and TECHNIQUES" section of this label for information on proper use and calibration of this equipment.

### Chemical mowing - Perennials

This product will suppress perennial grasses listed in this section to serve as a substitute for mowing. Use 8 fluid ounces of this product per acre when treating tall fescue, fine fescue, orchardgrass or quackgrass covers. Use 6 fluid ounces of this product per acre when treating Kentucky bluegrass. Apply treatments in sufficient volume of water to ensure thorough coverage.

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

### Chemical mowing - Annuals

For growth suppression of some annual grasses, such as annual ryegrass, wild barley and wild oats growing in coarse turf on roadsides or other industrial areas, apply 4 to 5 fluid ounces of this product in sufficient volume of water to ensure thorough coverage.

Applications should be made when annual grasses are actively growing and before the seedheads are in the boot stage of development. Treatments may cause injury to the desired grasses.

## RAILROADS

### Bare ground, Ballast and Shoulders, Crossings, and Spot treatment

This product may be used to maintain bare ground on railroad ballast and shoulders. This product may be used to improve line-of-sight at railroad crossings and reduce the need for mowing along rights-of-way, wayside structures, and other similar areas. This product may be tank mixed with other herbicides for ballast, shoulder, spot, bare ground, crossing treatments UNLESS SPECIFICALLY PROHIBITED BY THE PRODUCT LABEL.

### Brush control

This product may be used to control woody brush and trees on railroad rights-of-way. Apply 4 to 10 quarts of this product per acre as a broadcast spray, using boom-type or boom-less nozzles. Up to 80 gallons of spray solutions per acre may be used. Apply a 3/4 to 2 percent solution of this product when using high-volume spray-to-wet applications. Apply a 5 to 10 percent solution of this product when using low volume directed sprays for spot treatment. This product may be tank mixed with other products for enhanced control of woody brush and trees UNLESS SPECIFICALLY PROHIBITED BY THE PRODUCT LABEL.

### Actively Growing Bermudagrass and Bermudagrass Release

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

Bahiagrass; Bluestem, silver; Fescue, tall; Johnsongrass; Trumpet creeper; Vaseygrass

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

Bahiagrass; Blackberry; Bluestem, silver; Broomsedge; Dallisgrass; Dewberry; Dock, curly; Dogfennel; Fescue, tall; Johnsongrass; Poorjoe; Raspberry; Trumpet creeper; Vaseygrass; Vervain, blue

Use only on well-established bermudagrass. Bermudagrass injury may result from the treatment, but regrowth will occur under moist conditions. Do not repeat applications in the same season as severe injury may occur.

## ROADSIDES

### Shoulder treatments

This product may be used on road shoulders.

### Guardrails and other obstacles to mowing

This product may be used to control weeds growing under guardrails and around signposts and other objects along the roadside.



**Spot treatment**

This product may be used as a spot treatment to control unwanted vegetation growing along roadsides.

**Tank mixtures**

This product may be tank mixed with other herbicides for shoulder, guardrail, spot and bare ground treatments UNLESS SPECIFICALLY PROHIBITED BY THE PRODUCT LABEL.

**Release of Bermudagrass or Bahiagrass****Dormant applications**

This product may be used to control or partially control many winter annual weeds and tall fescue for effective release of dormant bermudagrass or bahiagrass. Treat only when turf is dormant and prior to spring greenup. This product may also be tank-mixed with Spyder (Sulfometuron methyl) for residual control. Tank mixtures of this product with Spyder may delay greenup.

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

Apply 8 to 64 fluid ounces of this product per acre alone or in a tank mixture with 1/4 to 1 ounce per acre of Spyder. Use only in areas where bermudagrass or bahiagrass are desirable ground covers and where some temporary injury or discoloration can be tolerated. To avoid delays in greenup and minimize injury, add no more than 1 ounce of Spyder per acre on bermudagrass and no more than 0.5 ounce of Spyder per acre on bahiagrass and avoid treatments when these grasses are in semi-dormant condition.

**Actively growing bermudagrass**

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

Bahiagrass; Bluestem, silver; Fescue, tall; Johnsongrass; Trumpet creeper; Vaseygrass

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

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

Use only on well-established bermudagrass. Bermudagrass injury may result from the treatment, but regrowth will occur under moist conditions. Do not repeat applications in the same season as severe injury may occur.

**Actively growing bahiagrass**

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

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

**TANK MIXTURES FOR NON-CULTIVATED SITES AND FORESTRY SITE PREPARATIONS****RAZOR PRO HERBICIDE plus Spyder (Sulfometuron methyl)**

Use on non-cultivated sites including airports, industrial plants, lumberyards, petroleum tank farms, pumping stations, railroads, roadsides, storage areas or other similar sites where bare ground is desired.

This tank mixture may also be used as a site preparation treatment for sites to be planted to jack pine, loblolly pine, red pine, slash pine, Virginia pine and other conifer species. When applied as directed for "NON-CULTIVATED USES" under the conditions described, this product plus Spyder provides control of annual weeds listed in the "WEEDS CONTROLLED" section of the label for this product and control or partial control of the perennial weeds listed below.

Apply 1 to 2 quarts of this product with 2 to 4 ounces of Spyder per acre as a broadcast spray to actively growing weeds. This mixture may be applied by aerial equipment in site prep operations. When applied by air, use the specified rates. This product plus Spyder tank mixtures may not be applied by air in California.

For control of annual weeds, use the lower rates of these products.

For control of the listed perennial weeds, use the higher rates of both products. For partial control, use the lower rates.

Bahiagrass; Bermudagrass\*; Broomsedge; Dock, curly; Dogfennel; Fescue, tall; Johnsongrass\*\*; Poorjoe\*\*; Quackgrass; Trumpet creeper\*; Vaseygrass; Vervain, blue

\*Suppression at the higher rates only.

\*\*Control at the lower rates.

Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used.

## TANK MIXTURES NON-CULTIVATED SITES

When applied as a tank mixture, this product provides control of the emerged annual weeds and partial control to the emerged perennial weeds listed in this label. THIS PRODUCT MAY BE TANK MIXED WITH MOST NON-CULTIVATED HERBICIDES UNLESS PROHIBITED BY THE SPECIFIC LABEL.

Use according to the most restrictive label directions for each product in the mixture.

### FARMSTEAD WEED CONTROL

When applied as directed for "NON-CULTIVATED USES", under conditions described, this product controls undesirable vegetation listed on this label around farmstead building foundations, along and in fences, shelterbelts and for nonselective farmstead weed control. For specific rates of application and instructions for control of various annual and perennial weeds, see the "WEEDS CONTROLLED" section of this label.

#### PRODUCT WEED CONTROL AND TRIM AND EDGE

This product may be used to control annual weeds, perennial weeds and woody brush found in any part of the farmstead, including around building foundations and equipment storage areas, along and in fences, in dry ditches and canals, along ditchbanks, farm roads, shelterbelts, and prior to planting landscape ornamentals.

This product may be tank mixed with labeled rates of other products, provided that the specific product used is registered for the same non-cultivated sites, timing and method of application. Refer to the individual product labels for approved farmstead sites and application rates. Read and follow label directions, restrictions and precautions of all products in the tank mix. Observe the most restrictive label statements of various tank mix products used.

WEEDS	HEIGHT OF WEED (Inches)	RATE (Fluid Ounces per Acre)
Annual Weeds	< 6	22
	6 to 12	32
	>12	44
Perennial Weeds	--	44 fluid ounces to 3.3 quarts

For application of tank mixtures with these products using backpack sprayers, handguns, or other hand-held applicators, see "WEEDS CONTROLLED – APPLICATIONS RATE TABLE" section of the label for specified label rates of this product.

#### GREENHOUSE AND SHADEHOUSE

This product may be used to control weeds in and around greenhouses and shadehouses.

Desirable vegetation must not be present during application and air circulation fans must be turned off until after the application has dried. Do not use in residential greenhouses.

#### CHEMICAL MOWING

This product will suppress perennial grasses listed in this section to serve as a substitute for mowing.

GRASSES	RATE (Fluid Ounces per Acre)	USE INSTRUCTIONS
Bahiagrass Fine fescue Kentucky bluegrass Orchardgrass Quackgrass covers Tall fescue	4	Apply treatments in a minimum of 10 gallons of spray solution per acre.
Bermudagrass	11	
Paragrass Torpedograss	44	

- Chemical mowing applications may be made along farm ditches and other parts of farmsteads.
- Use only in areas where some temporary injury or discoloration of perennial grasses can be tolerated.

#### FARM DITCHES

This product will suppress perennial grasses along farm ditches. Apply this product at a rate of 6 to 8 fluid ounces per acre. Use 8 fluid ounces per acre when treating tall (coarse) fescue, fine fescue, orchardgrass or quackgrass covers. For best suppression of these species, add ammonium sulfate at a rate of 1.7 pounds per 10 gallons of spray solution. Use 6 fluid ounces per acre without ammonium sulfate when treating Kentucky bluegrass.

Apply treatments to actively growing perennial grass covers. For best spray distribution and coverage, use flat fan nozzles.

Additional surfactant may be used. If additional surfactant is to be used follow the manufacturer's rates and instructions for use of the surfactant.

Where broadleaf weed control or suppression is desired, tank mix this product with an appropriate, labeled broadleaf weed herbicide.

## CONSERVATION RESERVE PROGRAM (CRP ACRES)

This product can be used to control undesirable vegetation when rotating out of CRP acres or to suppress competitive growth and seed production of undesirable vegetation in CRP acres.

For specific rates of application for various annual and perennial weeds, see the "WEEDS CONTROLLED" section of this label.

CRP applications may be made with wiper applicators or conventional spray equipment.

For selective applications with broadcast spray equipment, apply 12 to 16 ounces per acre of this product in early spring before desirable CRP grasses, such as crested and tall wheatgrass, break dormancy and initiate green growth. Late fall applications can be made after desirable perennial grasses have reached dormancy. Some stunting of CRP perennial grasses will occur if applications are made when plants are not dormant.

## DORMANT RANGELAND

This product will control or suppress weeds in dormant rangeland. Refer to the "WEEDS CONTROLLED SECTION" of this label.

Apply 8 to 16 ounces per acre of this product in the early spring when the weeds have greened up, but desirable grasses, such as crested and tall wheatgrass are still truly dormant.

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

Do not use additional surfactant or ammonium sulfate when spraying dormant rangeland grasses with this product.

## BROMUS SPECIES AND MEDUSAHEAD IN PASTURE AND RANGELANDS

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

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

**Application Equipment and Techniques:** Applications may be made using ground or aerial equipment. Aerial applications for these uses may be made using fixed wing or helicopter equipment. For aerial applications, apply in 2 to 10 gallons of water per acre. For applications using ground equipment, apply in 10 to 20 gallons of water per acre.

When applied as directed there are no grazing restrictions.

## HABITAT MANAGEMENT

This product is for the restoration and/or maintenance of native habitats and in wildlife management areas. Apply as instructed in the "NON-CULTIVATED USES" section of this label.

**Habitat Restoration and Maintenance** - When applied as directed, exotic and other undesirable vegetation may be controlled in habitat management areas. Applications can be made to allow recovery of native plant species, prior to planting desirable native species, and for similar broad spectrum vegetation control requirements in habitat management areas. Spot treatments can be made to selectively remove unwanted plants for habitat maintenance and enhancement. For spot treatments, care should be exercised to keep spray off desirable plants.

**Wildlife Food Plots** - This product may be used as a site preparation treatment prior to planting wildlife food plots. Any wildlife food species may be planted after applying this product, or native species may be allowed to repopulate the area. If tillage is needed to prepare a seedbed, wait 7 days after applying this product before tilling.

## ORNAMENTALS, NURSERIES (PLANTS AND TREES) AND CHRISTMAS TREES

DO NOT USE THIS PRODUCT AS AN OVER-THE-TOP BROADCAST SPRAY IN ORNAMENTALS AND CHRISTMAS TREES.

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

When applied as instructed for the conditions described for "NON-CULTIVATED USES", this product controls undesirable vegetation listed on this label prior to planting, within and around greenhouses and shadehouses, and as a postdirected spray around established ornamentals and Christmas trees. This product may also be used to trim and edge around trees, buildings, sidewalks, roads, potted plants and other objects in a nursery setting.

For specific rates of application and instructions for control of various annual and perennial weeds, see the "WEEDS CONTROLLED" section of this label.

Where repeat applications are necessary, do not exceed 10.6 quarts of this product per acre per year.

**Site Preparation** - Following preplant applications of this product, any ornamental, nursery species or Christmas tree species may be planted. Precautions should be taken to protect nontarget plants during site preparation applications.

**Greenhouse/Shadehouse Use** - This product may be used to control weeds listed on this label which are growing in greenhouses. Desirable vegetation must not be present during application and air circulation fans must be turned off.

**Postdirected Spray** - Use as a postdirected spray around established woody ornamental species, nursery species or Christmas trees such as those listed below. Care must be exercised to avoid contact of spray, drift or mist with foliage or green bark of established ornamental species.

Arborvitae; Azalea; Boxwood; Crabapple; Euonymus; Fir; Hollies; Jojoba; Lilac; Magnolia; Maple; Oak; Privet; Pine; Spruce

## **SILVICULTURAL SITES and RIGHTS-OF-WAY**

NOTE: DO NOT USE AS AN OVER-THE-TOP BROADCAST SPRAY IN SILVICULTURAL NURSERIES

When applied as directed for "NON-CULTIVATED USES" under conditions described, this product controls undesirable vegetation listed on this label.

For specific rates of application and instructions for control of various brush, annual and perennial weeds, see the "WEEDS CONTROLLED" section of this label.

Do not exceed 10.6 quarts of this product per acre per year.

**Aerial Application** - This product may be applied using aerial spray equipment for silvicultural site preparation, and rights-of-way treatments. See the "APPLICATION EQUIPMENT and TECHNIQUES" part of the "MIXING, ADDITIVES and APPLICATION INSTRUCTIONS" section of this label for information on how to apply this product by air.

DO NOT APPLY THIS PRODUCT BY AIR TO RIGHTS-OF-WAY SITES IN THE STATE OF CALIFORNIA.

### **SITE PREPARATION**

Following preplant applications of this product, any silvicultural species may be planted.

### **POSTDIRECTED SPRAY**

In established silvicultural sites, use as a spray on the foliage of undesirable vegetation. Care must be exercised to avoid contact of spray, drift or mist with foliage or green bark of desirable species.

### **CUT STUMP TREATMENTS**

Woody vegetation may be controlled by treating freshly cut stumps of trees and resprouts with this product. Apply this product using suitable equipment to ensure coverage of the entire cambium. Cut vegetation close to the soil surface. Apply a 50 to 100 percent solution of this product to the freshly-cut surface immediately after cutting. Delays in application may result in reduced performance.

For best results, applications should be made during periods of active growth and full leaf expansion.

When used according to directions for cut stump application, this product will CONTROL, PARTIALLY CONTROL or SUPPRESS many types of woody brush and tree species, some of which are listed below:

Alder; Eucalyptus; Madrone; Oak; Reed, giant; Salt cedar; Sweetgum; Tan Oak; Willow

### **INJECTION AND FRILL APPLICATIONS**

Woody vegetation may be controlled by injection or frill application of this product. Apply this product using suitable equipment which must penetrate into the living tissue. Apply the equivalent of 1 ml of this product per each 2 to 3 inches of trunk diameter (DBH). This is best achieved by applying a 50 to 100 percent concentration of this material either to a continuous frill around the tree or as cuts evenly spaced around the tree below all branches. As tree diameter increases in size, better results are achieved by applying diluted material to a continuous frill or more closely spaced cuttings. Avoid application techniques that allow runoff to occur from frill or cut areas in species that exude sap freely after frills or cutting. In species such as this, make frill or cut at an oblique angle so as to produce a cupping effect and use undiluted material. For best results, application should be made during periods of active growth and after full leaf expansion.

This treatment WILL CONTROL the following woody species: Oak; Poplar; Sweetgum; Sycamore

This treatment WILL SUPPRESS the following woody species:

Blackgum; Dogwood; Hickory; Maple, red

## **TURFGRASSES AND GRASSES FOR SEED PRODUCTION**

### **PREPLANT AND RENOVATION**

When applied as directed for "NON-CULTIVATED USES", under conditions described, this product controls most existing vegetation prior to the planting or renovation of either turfgrasses or grass seed production areas.

For specific rates of application and instructions for control of various annual and perennial weeds, and woody brush and trees, see the "WEEDS CONTROLLED" section of this label.

For maximum control of existing vegetation, delay planting to determine if any regrowth from escaped underground plant parts occurs.

Where repeat treatments are necessary, sufficient regrowth must be attained prior to application. For warm-season grasses, such as bermudagrass, summer or fall applications provide best control.

DO NOT DISTURB SOIL OR UNDERGROUND PLANT PARTS BEFORE TREATMENT. Tillage or renovation techniques such as vertical mowing, coring or slicing should be delayed for 7 days after application to allow proper translocation into underground plant parts.

Application to nontarget plants should be avoided as death or severe injury will occur.

### **TURFGRASSES**

Where existing vegetation is growing in a field or unmowed situation, apply this product to actively growing weeds at the stages of growth listed in the "WEEDS CONTROLLED" section of this label.

Where existing vegetation is growing under mowed turfgrass management in such sites as apartment complexes, residential areas and sod farms, apply this product after omitting at least one regular mowing to allow sufficient growth for good interception of the spray. Desirable turfgrasses may be planted following the above procedures.

**GRASSES FOR SEED PRODUCTION**

Apply this product to actively growing weeds at the stages of growth specified in the “WEEDS CONTROLLED” section of this label prior to planting or renovation of turf or forage grass areas grown for seed production.

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

**ANNUAL WEED CONTROL IN DORMANT BERMUDAGRASS AND BAHAGRASS TURF**

When applied as directed for “NON-CULTIVATED USES” under the conditions described, this product will provide control or suppression of many winter annual weeds and tall fescue for effective release of dormant bermudagrass and bahiagrass turf. Refer to the rate table for **RAZOR PRO HERBICIDE** alone under the “RELEASE OF BERMUDAGRASS and BAHAGRASS” section of this label for specified rates and volumes on the species to be suppressed or controlled. Treat only when turf is dormant and prior to spring greenup. Spot treatments or broadcast applications of this product in excess of 16 fluid ounces per acre may result in injury or delayed greenup in highly maintained turfgrass areas; i.e., golf courses, lawns, etc. **DO NOT APPLY TANK MIXTURES** of this product plus Spyder (Sulfometuron methyl) in highly maintained turfgrass areas.

**RELEASE OF BERMUDAGRASS OR BAHAGRASS**

NOTE: Use only in areas where bermudagrass or bahiagrass are desirable ground covers and where some temporary injury or discoloration can be tolerated. Use tank mixtures of this product plus Spyder (Sulfometuron methyl) only on railroads, highways, utility plant sites, or other right-of-way areas.

When applied as directed for “NON-CULTIVATED USES” under the conditions described, this product will provide control or suppression of many winter annual weeds and tall fescue for effective release of dormant bermudagrass or bahiagrass. This product may be tank-mixed with Spyder as directed for residual control. Make applications to dormant bermudagrass or bahiagrass. Tank mixtures of this product plus Spyder may delay greenup. To avoid delays in greenup and minimize injury, do not add more than 1 ounce per acre of Spyder on bermudagrass or more than 0.5 ounce per acre on bahiagrass, or treat when these grasses are in a semi-dormant condition. For best results on winter annuals, treat when plants are in an early growth stage (below 6 inches in height) after most have germinated. For best results on tall fescue, treat when fescue is in or beyond the 4- to 6-leaf stage.

**WEEDS CONTROLLED**

Rate instructions for control or suppression of winter annuals and tall fescue are listed below:

Apply the specified rates of this product alone or as a tank mixture in sufficient water to ensure thorough coverage.

For the best instructions for the mixture of weeds within your geographic area, contact your Nufarm sales representative.

WEEDS CONTROLLED OR SUPPRESSED WITH RAZOR PRO HERBICIDE ALONE*						
WEED SPECIES	RAZOR PRO HERBICIDE (Fluid Ounces/Acre)					
	8	12	16	24	32	64
Barley, little	S	C	C	C	C	C
Bedstraw, catchweed	S	C	C	C	C	C
Bluegrass, annual	S	C	C	C	C	C
Chervil	S	C	C	C	C	C
Chickweed, common	S	C	C	C	C	C
Clover, crimson	•	S	S	C	C	C
Clover, large hop	•	S	S	C	C	C
Fescue, tall	•	•	•	•	S	S
Geranium, Carolina	•	•	S	S	C	C
Henbit	•	S	C	C	C	C
Ryegrass, Italian	•	•	S	C	C	C
Speedwell, corn	S	C	C	C	C	C
Vetch, common	•	•	S	C	C	C

NOTE: C = Control  
S = Suppression

\*These rates apply only to sites where an established competitive turf is present.



WEEDS CONTROLLED OR SUPPRESSED WITH RAZOR PRO HERBICIDE PLUS SPYDER (SULFOMETURON METHYL)*								
WEED SPECIES	RAZOR PRO HERBICIDE (Fluid Ounces/Acre)	8	12	12	16	16	12	16
	+	+	+	+	+	+	+	+
	Spyder (Ounces/Acre)	1/4	1/4	1/2	1/4	1/2	1	1
Barley, little		C	C	C	C	C	C	C
Bedstraw, catchweed		C	C	C	C	C	C	C
Bluegrass, annual		S	C	C	C	C	C	C
Chervil		C	C	C	C	C	C	C
Chickweed, common		S	C	C	C	C	C	C
Clover, crimson		S	S	S	S	C	C	C
Clover, large hop		•	•	S	S	C	C	C
Fescue, tall		•	•	•	•	•	S	S
Geranium, Carolina		•	S	S	C	C	C	C
Henbit		•	S	C	C	C	C	C
Ryegrass, Italian		•	S	S	C	C	C	C
Speedwell, corn		S	C	C	C	C	C	C
Vetch, common		C	C	C	C	C	C	C

NOTE: C = Control  
S = suppression

\*These rates or mixtures of rates apply only to sites where an established competitive turf is present.

**RELEASE OF ACTIVELY GROWING BERMUDAGRASS**

When applied as directed, this product will aid in the release of bermudagrass by providing control of annual species listed in the “WEEDS CONTROLLED” section of this and the Spyder (Sulfometuron methyl) label and suppression or partial control of certain perennial weeds. For control or suppression of those annual species listed on this label, use 1 to 3 pints of this product as a broadcast spray in sufficient water to ensure thorough coverage. Use the lower rate when treating annual weeds below 6 inches in height (or length of runner in annual vines). Use the higher rate as weeds increase in size or as they approach flower or seedhead formation.

Use the higher rate of this product for partial control of the following perennial species. Use the lower rates for suppression of growth. For best results, see the “WEEDS CONTROLLED” section of this label for proper stage of growth.

Bahiagrass; Bluestem, silver; Fescue, tall; Johnsongrass\*; Trumpet creeper\*\*; Vaseygrass

\*Control at the higher rates.

\*\*Suppression at higher rates only.

This product may be tank-mixed with Spyder. If tank-mixed, use no more than 1 to 2 pints per acre of this product with 1 to 2 ounces of Spyder per acre.

Use the lower rates of both mixtures to control annual weeds below 6 inches in height (or runner length in annual vines) that are listed in the “WEEDS CONTROLLED” section of this booklet and the Spyder label. Use the higher rates as annual weeds increase in size and approach the flower or seedhead stages.

Use the higher rates of this product to provide partial control of the following perennial weeds. Use the lower rates for suppression of growth.

Bahiagrass; Bluestem, silver; Broomsedge; Dock, curly; Dogfennel; Fescue, tall; Johnsongrass\*; Poorjoe\*; Trumpet creeper\*\*; Vaseygrass; Vervain, blue

\*Suppression at higher rates only.

\*\*Control at the higher rates.



## COOL SEASON TURF GROWTH REGULATION

When applied as directed, this product will suppress growth and seedhead development of listed turf species in non-cultivated sites.

This product is for management of coarse turf on roadside rights-of-way. Use in areas such as airports, apartment complexes, Christmas tree farms, ditch banks, dry ditches, dry canals, fencerows, golf courses, highways, industrial sites, lumberyards, manufacturing sites, office complexes, ornamental nurseries, parks, parking areas, pipelines, petroleum tank farms and pumping installations, railroads, recreational pipeline areas, residential areas, rights-of-way, roadsides (including guardrails and shoulders), sod or turf seed farms, schools, storage areas, substations and warehouse areas. Do not use on high-quality turf or other areas where some turf color changes cannot be tolerated. Slight turf discoloration may occur but turf will regreen and regrow under moist conditions as effects of this product wear off.

Apply 4 to 6 fluid ounces of this product per acre alone or in a tank mixture.

Apply the rates of this product alone or as a tank mixture in sufficient water to ensure thorough coverage.

This product can be used for growth and seedhead suppression of:

### TALL FESCUE/SMOOTH BROME

For best results, apply this product in a tank mixture to actively growing turfgrasses after greenup in the spring of the year. For suppression of seedheads, applications must be made before boot-to-seedhead stage of development. Applications made from seedhead emergence until maturity may result in turf discoloration or injury.

After mowing or removal of seedheads, this product in a tank mixture may also be used to suppress the growth of certain turfgrasses. Allow turf to recover from stress caused by heat, drought or mowing before making applications. Applications made to turf under stress may increase the potential for discoloration or injury.

### ANNUAL GRASSES

For growth suppression of some annual grasses such as annual ryegrass, wild barley and wild oats, apply 3 to 4 fluid ounces of this product per acre. Applications should be made when annual grasses are actively growing and before the seedheads are in the boot stage of development. Treatments made after seedhead emergence may cause injury to the desired grasses.

### TANK MIXTURES

For the following tank mixtures, consult each product label for weeds controlled and the correct stage of application. Do not treat turf under stress.

#### Tank mixtures plus 2,4-D Amine

For additional weed control benefits, up to 1 pound a.i. per acre of 2,4-D amine may be added to the following tank mixtures. Consult the label for 2,4-D amine for weeds controlled.

#### TALL FESCUE

##### RAZOR PRO HERBICIDE plus Corsair® (Chlorsulfuron)

For suppression of tall fescue growth and seedheads, and control or partial control of some annual weeds, apply this tank mixture after greenup and prior to boot-to-seedhead stage of development. Use up to 0.5 ounce of chlorsulfuron per acre.

This tank mixture can also be applied after mowing or removal of tall fescue seedheads for turf growth suppression. Make only one of the above applications per growing season.

##### RAZOR PRO HERBICIDE plus Spyder (Sulfometuron methyl)

For suppression of tall fescue growth and seedheads, and control or partial control of some annual weeds, apply this tank mixture after greenup and prior to boot-to-seedhead stage of development. Use up to 0.25 ounce of sulfometuron methyl per acre.

##### RAZOR PRO HERBICIDE plus Manor® Metsulfuron methyl)

This tank mixture can be applied after mowing or removal of tall fescue seedheads for turf growth suppression and control or partial control of some annual weeds. Use up to 1/3 ounce of metsulfuron methyl per acre.

#### SMOOTH BROME

##### RAZOR PRO HERBICIDE Plus Spyder (Sulfometuron methyl)

For suppression of smooth brome growth and seedheads and control or partial control of some annual weeds, apply this tank mixture after greenup and prior to boot-to-seedhead stage of development. use up to 0.25 ounce of sulfometuron methyl per acre.

## STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** STORE ABOVE 10°F (-12°C) TO KEEP PRODUCTS 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 shake, roll or agitate to mix well before using.

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product that cannot be used or chemically reprocessed must be disposed of in a landfill approved for pesticide disposal or in accordance with applicable Federal, state or local procedures. Emptied container retains vapor and product residue. Observe all label safeguards until container is destroyed.

### CONTAINER HANDLING:

**NOTE:** This product is available in multiple containers. Refer to the Net Contents section of this products labeling for the applicable "No refillable" or "Refillable" designation. Follow the container disposal [handling] instructions below that apply to your container type / size.

**Nonrefillable Containers 5 Gallons or Less:** Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available. 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. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Plastic containers are also disposable by incineration, or, if allowed by State and local authorities, by burning. If burned stay out of smoke.

**Nonrefillable containers larger than 5 gallons:** Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available. If recycling or reconditioning not available, puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Plastic containers are also disposable by incineration, or, if allowed by State and local authorities, by burning. If burned stay out of smoke. Triple rinse or pressure 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. **Pressure rinse as follows:** 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 containers larger than 5 gallons:** 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 a mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for two minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

## WARRANTY DISCLAIMER

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