



United States  
Environmental Protection Agency  
Washington, DC 20460

☐ Registration  
☐ Amendment  
☒ Other

OPP Identifier Number

292601

## Application for Pesticide - Section I

1. Company/Product Number 228-381	2. EPA Product Manager J. Tompkins	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) Riverdale Foresters	PM# 25	
5. Name and Address of Applicant (Include ZIP Code) Nufarm Americas, Inc. Riverdale - A Nufarm Company 1333 Burr Ridge Parkway, Suite 125A Burr Ridge, IL 60527-0866 <input type="checkbox"/> Check if this is a new address		6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. _____ Product Name _____

## Section - II

<input type="checkbox"/> Amendment - Explain below.	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____	<b>NOTIFICATION</b> FEB 20 2004
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application.	
<input checked="" type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - Explain below.	

Explanation: Use additional page(s) if necessary. (For section I and Section II.)  
Clarified "Rights-of-Way" to clearly include Roadsides, via Notification.

## Section - III

1. Material This Product Will Be Packaged In:			
Child-Resistant Packaging <input type="checkbox"/> Yes * <input type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No If "Yes" Unit Packaging wgt. No. per container	Water Soluble Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No If "Yes" Package wgt. No. per container	2. Type of Container <input type="checkbox"/> Metal <input type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) _____
* Certification must be submitted			
3. Location of Net Contents Information <input type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container	5. Location of Label Directions <input type="checkbox"/> On Label <input type="checkbox"/> On Labeling accompanying product
6. Manner in Which Label is Affixed to Product <input type="checkbox"/> Lithograph <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled		<input type="checkbox"/> Other _____	

## Section - IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)			
Name Russell F. Sawyer	Title Regulatory Affairs Manager	Telephone No. (Include Area Code) 708/754-3330	
<b>Certification</b> I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.			6. Date Application Received (Stamped)
2. Signature 	3. Title Regulatory Affairs Manager		
4. Typed Name Russell F. Sawyer	5. Date February 1, 2004		

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NOTIFICATION

FEB 20 2004

RIVERDALE

FORESTERS'

NON-SELECTIVE HERBICIDE

FOR USE IN FORESTRY, RIGHTS-OF-WAY AND HABITAT RESTORATION AREAS:  
AND OTHER LISTED APPLICATIONS

ACTIVE INGREDIENT:

Glyphosate, N-(phosphonomethyl)glycine, in the form of its isopropylamine salt*	53.8%
INERT INGREDIENTS:	46.2%
<b>TOTAL</b>	<b>100.0%</b>

\*Contains 648 grams per litre or 5.4 pounds per U.S. gallon of the active ingredient, glyphosate, in the form of its isopropylamine salt. Equivalent to 480 grams per litre or 4 pounds per U.S. gallon of the acid, glyphosate.

Foresters' and Riverdale are Registered Trademarks of Nufarm Americas Inc.

**KEEP OUT OF REACH OF CHILDREN**

**CAUTION**

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

EPA NO. 228-381

NET CONTENTS

EPA EST. NO. 228-IL-1

MANUFACTURED BY NUFARM AMERICAS INC., BURR RIDGE, ILLINOIS 60527-0866

Revised 2/14/03 Clarified application rates for use on Woody Brush and Trees. Also  
timing of CA use for Conifer Release.  
1/30/04 Clarified "Rights-of-Way" to clearly include Roadsides via Notification.

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

Harmful if inhaled or swallowed. Avoid breathing spray mist. Avoid contact with eyes, skin or clothing. Wash thoroughly with soap and water after handling.

**FIRST AID STATEMENT**

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

**IF INHALED:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

**IF SWALLOWED:** Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

**PERSONAL PROTECTIVE EQUIPMENT:** Applicators and other handlers must wear long-sleeved shirt and long pants and 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, use detergent and hot water. Keep and wash PPE separately from other laundry.

**ENGINEERING CONTROL STATEMENTS:** 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)], the handler PPE requirements may be reduced or modified as specified in the WPS.

**USER SAFETY RECOMMENDATIONS**

Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

**ENVIRONMENTAL HAZARDS**

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

**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. 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.

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

**DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in any manner inconsistent with its labeling. 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 protection 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 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is: coveralls, shoes plus socks, and chemical resistant gloves Category A (such as butyl rubber, natural rubber, neoprene rubber or nitrile).

**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 to prevent transfer of this product onto desirable vegetation.

**GENERAL INFORMATION**

DO NOT APPLY THIS PRODUCT USING AERIAL SPRAY EQUIPMENT EXCEPT UNDER CONDITIONS AS SPECIFIED WITHIN THIS LABEL OR CURRENT SUPPLEMENTAL LABELING ISSUED BY MANUFACTURER.

This product, a water-soluble liquid, mixes readily with water and nonionic surfactant to be applied as a foliar spray after dilution and through mixing with water in accordance with label instructions. Hand-held sprayers may also be used.

Always use the higher rate of this product per acre within the recommended range when vegetation is heavy or dense. When treating dense multi-canopied sites or woody vegetation or difficult-to-control herbaceous or woody plants.

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 brush species may not occur for 7 days or more. Extremely cool or cloudy weather following treatment may slow the 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 directed 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.

Unemerged plants arising from unattached underground rhizomes or root stocks of perennials or brush will not be affected by the spray and will continue to grow. For this reason best control of most perennial weeds or brush is obtained when treatment is made at late growth stages approaching maturity.

Reduced or unacceptable control may result if weeds or brush are treated under poor growing conditions such as drought stress, disease or insect damage. Reduced results may also occur when treating weeds or brush heavily covered with dust.

Reduced control may result when applications are made to any weed or brush species that have been mowed, grazed or cut, and have not been allowed to regrow to the recommended 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 product off the foliage and a repeat treatment may be required.

When this product comes in contact with soil (on the soil surface or as suspended soil or sediment in water) it is bound to soil particles. Under recommended use situations, once this product is bound to soil particles, it is not available for plant uptake and will not harm off-site vegetation where roots grow into the treatment area or if the soil is transported off-site. Under recommended use conditions, the strong affinity of this product to soil particles prevents this product from leaching out of the soil profile and entering ground water. The affinity between this product and soil particles remains until this product is degraded, which is primarily a biological degradation process carried out under both aerobic and anaerobic conditions by soil micro flora.

Mixing this product with herbicides or other materials not recommended in this label may result in reduced performance. However, unless otherwise prohibited on this label or the label of an intended tank mix product may be applied in combination with any herbicide registered for the same site, timing, and method of application. Observe the most restrictive label statements of various tank mix products used. LIABILITY FOR CROP INJURY, HERBICIDE NONPERFORMANCE OR OTHER LOSS OR DAMAGE RESULTING FROM A TANK MIXTURE NOT SPECIFIED ON THIS LABEL, OR SUPPLEMENTAL LABELING DISTRIBUTED FOR THIS PRODUCT, IS SPECIFICALLY DISCLAIMED BY MANUFACTURER. BUYER AND ALL USERS ARE RESPONSIBLE FOR ALL LOSS OR DAMAGE IN CONNECTION WITH THE USE OR HANDLING OF MIXTURES OF THIS PRODUCT OR OTHER MATERIALS THAT ARE NOT EXPRESSLY RECOMMENDED IN THIS LABEL.

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.

#### ATTENTION

AVOID CONTACT WITH FOLIAGE, GREEN STEMS, EXPOSED NON-WOODY ROOTS, OR FRUIT OF CROPS, DESIRABLE PLANTS AND TREES, SINCE SEVERE INJURY OR DESTRUCTION MAY RESULT. AVOID DRIFT. EXTREME CARE MUST BE USED WHEN APPLYING THIS PRODUCT TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS.

Do not allow the herbicide solution to mist, drip, drift or splash onto desirable vegetation since minute quantities of this product can cause severe damage or destruction

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to the crop, plants or other areas on which treatment was not intended. The likelihood of plant or crop 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.

#### 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 powder 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 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 recommended, 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 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.

#### APPLICATION EQUIPMENT AND TECHNIQUES

This product may be applied with the following application equipment:

**Aerial** - Fixed Wing and Helicopter

Broadcast Spray

Controlled Droplet Application (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, 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, and wiper applications. See the appropriate part of this section for specific instructions and rates of application.

**AERIAL EQUIPMENT**

Use the recommended rates of this herbicide in 3 to 40 gallons of water per acre unless otherwise specified on this label. See the "WEEDS CONTROLLED" section of this label for specific rates. Unless other specified, do not exceed 1-1/2 pints per acre.

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 above the manufacturer's recommendation.

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

**Ensure uniform application-** To avoid 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 prevent corrosion.

This product plus Oust®, 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 to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

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

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

**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 recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy protection. 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 should 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 should 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 a 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 literally in a connected cloud (under low wind conditions) indicates an inversion, while smoke that moves upwards and rapidly dissipates indicates good vertical air mixing.



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**Sensitive Areas**

The pesticide should 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).

**BOOM EQUIPMENT**

For control of weed or brush species listed in this label using conventional boom equipment - Use the recommended rates of this product and surfactant in 3 to 30 gallons of water per acre as a broadcast spray, unless otherwise specified. See the "WEEDS CONTROLLED" section of this label for specific rates. As density of vegetation increases, spray volume should be increased within the recommended range to ensure complete coverage. Carefully select correct nozzle to avoid spraying a fine mist. For best results with ground application equipment, use flat fan nozzles. Check for even distribution of spray droplets.

**HAND-HELD and HIGH-VOLUME EQUIPMENT****Use Coarse Sprays Only**

For control of weeds listed in this label using knapsack sprayers or high-volume spraying equipment utilizing handguns or other suitable nozzle arrangements - Prepare a 3/4 to 2 percent solution of this product in water, add a nonionic surfactant and apply to foliage of vegetation to be controlled. For specific rates of application and instructions for control of various annual and perennial weeds, see the "WEEDS CONTROLLED" section in this label.

Applications should be made on a spray-to-wet basis. Spray coverage should be uniform and complete. Do not spray to point of runoff.

This product may be used as a 5 to 8 percent solution plus 0.5 to 1 ounce non-ionic surfactant per gallon spray solution for low-volume directed sprays for spot treatment of trees and brush. It is most effective in areas where there is a low density of undesirable trees or brush. If a straight stream nozzle is used, start the application at the top of the targeted vegetation and spray from top to bottom in a lateral zig-zag motion. Ensure that at least 50 percent of the leaves are contacted by the spray solution. For flat fan and cone nozzles and with hand-directed mist blowers, mist the application over the foliage of the targeted vegetation.

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

Prepare the desired volume of spray solution by mixing the amount of this product in water:

2 tablespoons = 1 fluid ounce

**Spray Solution**

AMOUNT OF FORESTRY NON-SELECTIVE HERBICIDE						
DESIRED VOLUME	3/4%	1%	1-1/4%	1-1/2%	5%	8%
1 Gal.	1 oz.	1-1/3 ozs.	1-2/3 ozs.	2 ozs.	6 ozs.	10-1/4 ozs.
25 Gal.	1-1/2 pts.	1 qt.	1-1/4 qts.	1-1/2 qts.	5 qts.	2 gals.
100 Gal.	3 qts.	1 gal.	1-1/4 gals.	1-1/2 gals.	5 gals.	8 gals.

**SELECTIVE EQUIPMENT**

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

A shielded applicator directs the herbicide solution onto weeds, while shielding desirable vegetation from the herbicide.

A wiper applicator applies the herbicide solution onto weeds by rubbing the weed with an absorbent material containing the herbicide solution.

**AVOID CONTACT WITH DESIRABLE VEGETATION.**

This section summarizes the general weed control spectrum and rates of application for this herbicide. Additional information specific to individual use patterns is detailed in following sections.

**ANNUAL WEEDS**

Apply to actively growing annual grasses and broadleaf weeds. Allow at least 7 days after application before disturbing treated vegetation. After this period the weeds may be mowed, tilled or burned. See "DIRECTIONS FOR USE", "GENERAL INFORMATION" AND "MIXING AND APPLICATION INSTRUCTIONS" for labeled users and specific application instructions.

**Broadcast Application** - Use 1-1/2 pints of this product per acre, plus 2 or more quarts of a nonionic surfactant per 100 gallons of spray solution, if weeds are less than 6 inches tall. If weeds are greater than 6 inches tall, use 2-1/2 pints of this product per acre plus 2 or more quarts of a nonionic surfactant per 100 gallons of spray solution.

**Hand-Held, High-Volume Application** - Use a 3/4 percent solution of this product in water plus 2 or more quarts of a nonionic surfactant per 100 gallons of spray solution and apply to foliage or vegetation to be controlled.

When applied as directed under the conditions described in this label, this product plus nonionic surfactant WILL CONTROL the following ANNUAL WEEDS:

<b>Balsamapple**</b> <i>Momordica charantia</i>	<b>Lambsquarters, common</b> <i>Chenopodium album</i>
<b>Barley</b> <i>Hordeum vulgare</i>	<b>Lettuce, prickly*</b> <i>Lactuca serriola</i>
<b>Barnyardgrass</b> <i>Echinochloa crus-galli</i>	<b>Morningglory</b> <i>Ipomoea spp.</i>
<b>Bassia, fivehook*</b> <i>Bassia hyssopifolia</i>	<b>Mustard, blue</b> <i>Chorispora tenella</i>
<b>Bluegrass, annual</b> <i>Poa annua</i>	<b>Mustard, tansy</b> <i>Descurainia pinnata</i>
<b>Bluegrass, bulbous</b> <i>Poa bulbosa</i>	<b>Mustard, tumble</b> <i>Sisymbrium altissimum</i>
<b>Brome*</b> <i>Bromus spp.</i>	<b>Mustard, wild</b> <i>Sinapis arvensis</i>
<b>Buttercup</b> <i>Ranunculus spp.</i>	<b>Oats, wild</b> <i>Avena fatua</i>

<b>Cheat</b> <i>Bromus secalinus</i>	<b>Panicum*</b> <i>Panicum spp.</i>
<b>Chickweed, mouseear</b> <i>Cerastium vulgatum</i>	<b>Pennycress, field</b> <i>Thlaspi arvense</i>
<b>Cocklebur</b> <i>Xanthium strumarium</i>	<b>Pigweed, redroot</b> <i>Amaranthus retroflexus</i>
<b>Corn, volunteer</b> <i>Zea mays</i>	<b>Pigweed, smooth</b> <i>Amaranthus hybridus</i>
<b>Crabgrass</b> <i>Digitaria spp.</i>	<b>Ragweed, common*</b> <i>Ambrosia artemisiifolia</i>
<b>False dandelion</b> <i>Krigia cespitosa</i>	<b>Ragweed, giant*</b> <i>Ambrosia trifida</i>
<b>Falseflax, smallseed</b> <i>Camelina microcarpa</i>	<b>Rocket, London</b> <i>Sisymbrium irio</i>
<b>Fiddleneck*</b> <i>Amsinckia spp.</i>	<b>Rye</b> <i>Secale cereale</i>
<b>Flaxleaf fleabane*</b> <i>Conyza bonariensis</i>	<b>Ryegrass, Italian*</b> <i>Lolium multiflorum</i>
<b>Fleabane*</b> <i>Erigeron spp.</i>	<b>Sandbur, field</b> <i>Cenchrus spp.</i>
<b>Foxtail</b> <i>Setaria spp.</i>	<b>Shattercane</b> <i>Sorghum bicolor</i>
<b>Foxtail, Carolina</b> <i>Alopecurus carolinianus</i>	<b>Shepherd's-purse</b> <i>Capsella bursa-pastoris</i>
<b>Grounsel, common</b> <i>Senecio vulgaris</i>	<b>Signalgrass, broadleaf</b> <i>Brachiaria platyphylla</i>
<b>Horseweed/Marestail</b> <i>Conyza canadensis</i>	<b>Smartweed, Pennsylvania</b> <i>Polygonum pennsylvanicum</i>
<b>Kochia*</b> <i>Kochia scoparia</i>	<b>Sowthistle, annual*</b> <i>Sonchus oleraceus</i>
<b>Spanishneedles*</b> <i>Bidens bipinnata</i>	<b>Spurry, umbrella</b> <i>Holosteum umbellatum</i>
<b>Stinkgrass</b> <i>Eragrostis cilianensis</i>	<b>Velvetleaf*</b> <i>Abutilon theophrasti</i>
<b>Sunflower*</b> <i>Helianthus annus</i>	<b>Wheat</b> <i>Triticum aestivum</i>
<b>Thistle, Russian</b> <i>Salsola kali</i>	<b>Witchgrass</b> <i>Panicum capillare</i>

\*Apply 3 pints of this product per acre. \*\*Apply with hand-held equipment only.

Annual weeds will generally continue to germinate from seed throughout the growing season. Repeat treatments will be necessary to control later germinating weeds.

#### PERENNIAL WEEDS

Apply this product as follows to control most vigorously growing perennial weeds. Unless otherwise directed, allow at least 7 days after application before disturbing vegetation.

See individual control recommendations for specific weeds following the table. For other perennials listed on this label, apply 4-1/2 to 7-1/2 pints of product per acre as a broadcast spray or as a 3/4 to 1-1/2 percent solution with hand-held equipment. Apply when target plants are actively growing and most have reached early head or early bud stage of growth.

Add 2 or more quarts of a nonionic surfactant per 100 gallons of spray solution to the rates of this product given in this list. See the "GENERAL INFORMATION," "DIRECTIONS FOR USE" and "MIXING AND APPLICATION" sections in this label for specific uses and application instructions.

NOTE: If weeds have been mowed or tilled, do not treat until regrowth has reached the recommended stages. Fall treatments must be applied before a killing frost. Repeat treatments may be necessary to control weeds regenerating from underground parts or seed.

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

Alfalfa <i>Medicago sativa</i>	Clover, white <i>Trifolium repens</i>
Alligatorweed* <i>Alternanthera philoxeroides</i>	Cogongrass <i>Imperata cylindrica</i>
Anise/Fennel <i>Foeniculum culgare</i>	Cordgrass <i>Spartina spp.</i>
Artichoke, Jerusalem <i>Helianthus tuberosus</i>	Cutgrass, giant* <i>Zizaniopsis miliacea</i>
Bahiagrass <i>Paspalum notatum</i>	Dallisgrass <i>Paspalum dilatatum</i>
Bermudagrass <i>Cynodon dactylon</i>	Dandelion <i>Taraxacum officinale</i>
Bindweed, field <i>Convolvulus arvensis</i>	Dock, curly <i>Rumex crispus</i>
Bluegrass, Kentucky <i>Poa pratensis</i>	Dogbane, hemp <i>Apocynum cannabinum</i>
Blueweed, Texas <i>Helianthus ciliaris</i>	Fescue <i>Festuca spp.</i>
Brackenfern <i>Pteridium spp.</i>	Fescue, tall <i>Festuca arundinacea</i>
Bromegrass, smooth <i>Bromus inermis</i>	Guineagrass <i>Panicum maximum</i>
Canarygrass, reed <i>Phalaris arundinacea</i>	Hemlock, poison <i>Conium maculatum</i>
Cattail <i>Typha spp.</i>	Horsenettle <i>Solanum carolinense</i>
Clover, red <i>Trifolium pratense</i>	Horseradish <i>Armoracia rusticana</i>
Ice Plant <i>Mesembryanthemum crystallinum</i>	Quackgrass <i>Agropyron repens</i>
Johnsongrass <i>Sorghum halepense</i>	Reed, giant <i>Arundo donax</i>

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Kikuyugrass <i>Pennisetum clandestinum</i>	Ryegrass, perennial <i>Lolium perenne</i>
Knapweed <i>Centaurea repens</i>	Smartweed, swamp <i>Polygonum cockineum</i>
Lantana <i>Lantana camara</i>	Starthistle, yellow <i>Centaurea solstitialis</i>
Lespedeza: common, serices <i>Lespedeza striata</i> <i>Lespedeza cuneata</i>	Sweet potato, wild* <i>Ipomoea pandurata</i>
Milkweed <i>Asclepias</i> spp.	Thistle, artichoke <i>Cynara cardunculus</i>
Muhly, wirestem <i>Muhlenbergia frondosa</i>	Thistle, Canada <i>Cirsium arvense</i>
Mullein, common <i>Verbascum thapsus</i>	Timothy <i>Phleum pratense</i>
Napiergrass <i>Pennisetum purpureum</i>	Torpedograss* <i>Panicum repens</i>
Nightshade, silverleaf <i>Solanum elaeagnifolium</i>	Vaseygrass <i>Paspalum urvillei</i>
Nutsedge: purple, yellow <i>Cyperus rotundus</i> <i>Cyperus esculentus</i>	Velvetgrass <i>Holcus</i> spp.
Orchardgrass <i>Dactylis glomerata</i>	Wheatgrass, western <i>Agropyron</i>
Pampasgrass <i>Cortaderia jubata</i>	
Paragrass <i>Brachiaria mutica</i>	
Phragmites** <i>Phragmites</i> spp.	

\*Partial control.

\*\*Partial control in southeastern states. See specific recommendations below.

Alligatorweed - Apply 6 pints of this product per acre as a broadcast spray or as a 1-1/4 percent solution with hand-held equipment to provide partial control of alligatorweed. Apply when most of the target plants are in bloom. Repeat applications will be required to maintain such control.

Bermudagrass - Apply 7-1/2 pints of this product per acre as a broadcast spray or as a 1-1/2 percent solution with hand-held equipment. Apply when target plants are actively growing and when seedheads appear.

Bindweed, field/Silverleaf Nightshade/Texas Blueweed - Apply 6 to 7-1/2 pints of this product per acre as a broadcast spray west of the Mississippi River and 4-1/2 to 6 pints of this product per acre east of the Mississippi River. With hand-held equipment, use a 1-1/2 percent solution. Apply when target plants are actively growing and are at or beyond full bloom. For silverleaf nightshade, best results can be obtained when application is made after berries are formed. Do not treat when weeds are under drought stress. New leaf development indicates active growth. For best results apply in late summer or fall.

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Brackenfern - Apply 4-1/2 to 6 pints of this product per acre as a broadcast spray or as a 3/4 to 1 percent solution with hand-held equipment. Apply to fully expanded fronds which are at least 18 inches long.

Cattail - Apply 4-1/2 to 6 pints of this product per acre as a broadcast spray or as a 3/4 percent solution with hand-held equipment. Apply when target plants are actively growing and are at or beyond the early-to-full bloom stage of growth. Best results are achieved when application is made during the summer or fall months.

Cogongrass - Apply 4-1/2 to 7-1/2 pints of this product per acre as a broadcast spray. Apply when cogongrass is at least 18 inches tall and actively growing in late summer or fall. Allow 7 or more days after application before tillage or mowing. Due to uneven stages of growth and the dense nature of vegetation preventing good spray coverage, repeat treatments may be necessary to maintain control.

Dogbane, hemp/Knapweed/Horseradish - Apply 6 pints of this product per acre as a broadcast spray or as a 1-1/2 percent solution with hand-held equipment. Apply when target plants are actively growing and most have reached the late bud-to-flower stage of growth. For best results, apply in late summer or fall.

Fescue, tall - Apply 4-1/2 pints of this product per acre as a broadcast spray or as a 1 percent solution with hand-held equipment. Apply when target plants are actively growing and most have reached the boot-to-head stage of growth. When applied prior to the boot stage, less desirable control may be obtained.

Guineagrass - Apply 4-1/2 pints of this product per acre as a broadcast spray or as a 3/4 percent solution with hand-held equipment. Apply when target plants are actively growing and when most have reached at least the 7-leaf stage of growth.

Johnsongrass/Bluegrass, Kentucky/Bromegrass, smooth/Canarygrass, reed/Orchardgrass/Ryegrass, perennial/Timothy/Wheatgrass, western - Apply 3 to 4-1/2 pints of this product per acre as a broadcast spray or as a 3/4 percent solution with hand-held equipment. Apply when target plants are actively growing and most have reached the boot-to-head stage of growth. When applied prior to the boot stage, less desirable control may be obtained. In the fall, apply before plants have turned brown.

Lantana - Apply this product as a 3/4 to 1 percent solution with hand-held equipment. 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.

Milkweed, common - Apply 4-1/2 pints of this product per acre as a broadcast spray or as a 1-1/2 percent solution with hand-held equipment. Apply when target plants are actively growing and most have reached the late bud-to-flower stage of growth.

Nutsedge: purple, yellow - Apply 4-1/2 pints of this product per acre as a broadcast spray, or as a 3/4 percent solution with hand-held equipment to control existing nutsedge plants and immature nutlets attached to treated plants. Apply when target 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.

Pampasgrass - Apply a 1-1/2 percent solution of this product with hand-held equipment when plants are actively growing.

Phragmites - For partial control of phragmites in Florida and the counties of other states bordering the Gulf of Mexico, apply 7-1/2 pints per acre as a broadcast spray or apply a 1-1/2 percent solution with hand-held equipment. In other areas of the U.S., apply 4 to 6 pints per acre as a broadcast spray or apply a 3/4 percent solution with hand-held equipment for partial control. For best results, treat during late summer or fall months when plants are actively growing and in full bloom. Due to the dense nature of the vegetation, which may prevent good spray coverage and uneven stages of growth,

repeat treatments may be necessary to maintain control. Visual control symptoms will be slow to develop.

Quackgrass/Kikuyugrass/Muhly, wirestem - Apply 3 to 4-1/2 pints of this product per acre as a broadcast spray or as a 3/4 percent solution with hand-held equipment when most

Quackgrass or wirestem muhly is at least 8 inches in height (3 to 4-leaf stage of growth) and actively growing. Allow 3 or more days after application before tillage.

Reed, giant/ice plant - For control of giant reed and ice plant, apply a 1-1/2 percent solution of this product with hand-held equipment when plants are actively growing. For giant reed, best results are obtained when applications are made in late summer to fall.

Sweet potato, wild - Apply this product as a 1-1/2 percent solution using hand-held equipment. Apply to actively growing weeds that are at or beyond the bloom stage of growth. Repeat applications will be required. Allow the plant to reach the recommended stage of growth before retreatment.

Thistle: Canada, artichoke - Apply 3 to 4-1/2 pints of this product per acre as a broadcast spray or as a 1-1/2 percent solution with hand-held equipment for Canada thistle. To control artichoke thistle, apply a 2 percent solution as a spray to wet application. Apply when target plants are actively growing and are at or beyond the bud stage of growth.

Torpedograss - Apply 6 to 7-1/2 pints of this product per acre as a broadcast spray or as a 3/4 to 1-1/2 percent solution with hand-held equipment to provide partial control of torpedograss. Use the lower rates under terrestrial conditions, and the higher rates under partially submerged or a floating mat condition. Repeat treatments will be required to maintain such control.

#### WOODY BRUSH AND TREES

See individual control recommendations for specific woody brush and trees to be controlled following the table. For partial control of other woody brush and trees listed in the table, apply 3 to 7-1/2 pints of this product per acre as a broadcast spray or as a 3/4 to 1-1/2 percent solution with hand-held equipment.

Apply the recommended rate of this product plus 2 or more quarts of a nonionic surfactant per 100 gallons of spray solution 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.

Applied as a 5 to 8 percent solution as a directed application as described in the HAND-HELD AND HIGH-VOLUME EQUIPMENT" section, this product will control or partially control all species listed in this section of the label. Use the higher rate of application for dense stands and larger woody brush and trees.

In arid areas, best results are obtained when application is made in the Spring or early Summer when brush species are at high moisture content and are flowering. Insure thorough coverage when using hand-held equipment. Symptoms may not appear prior to frost or senescence with Fall treatment.

Allow 7 or more days after application before 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.

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

Application Rates<sup>1</sup>

Method of Application	Application Rate	Spray Volume (gal/acre)
Broadcast Aerial Ground	1.5 to 7.5 qt/acre 1.5 to 7.5 qt/acre	5 to 30 10 to 60
Spray-to-Wet Handgun, Backpack Mistblower	0.75 to 2% by volume	spray-to-wet
Low Volume Directed Spray <sup>2</sup> Handgun, Backpack Mistblower	5% to 10% by volume	partial coverage

<sup>1</sup>Where repeat applications are necessary do not exceed 8.0 quarts per acre per year.

<sup>2</sup>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.

Alder <i>Alnus</i> spp.	Ceanothus <i>Ceanothus</i> spp.
Ash* <i>Fraxinus</i> spp.	Chamise <i>Adenostoma fasciculatum</i>
Aspen, quaking <i>Populus tremuloides</i>	Cherry:
Bearclover, Bearmat <i>Chamaebatia foliolosa</i>	Bitter <i>Prunus emarginata</i>
Birch <i>Betula</i> spp.	Black <i>Prunus serotina</i>
Blackberry <i>Rubus</i> spp.	Pin <i>Prunus pensylvanica</i>
Broom:	Coyote brush <i>Baccharis consanguinea</i>
French <i>Cytisus monspessulanus</i>	Creeper, Virginia* <i>Parthenocissus quinquefolia</i>
Scotch <i>Cytisus scoparius</i>	Dewberry <i>Rubus trivialis</i>
Buckwheat, California* <i>Eriogonum fasciculatum</i>	Dogwood <i>Cornus</i> spp.
Cascara* <i>Rhamnus purshiana</i>	Elderberry <i>Sambucus</i> spp.
Catsclaw* <i>Acacia greggi</i>	Elm* <i>Ulmus</i> spp.
Eucalyptus, bluegum <i>Eucalyptus globulus</i>	Poplar, yellow* <i>Liriodendron tulipifera</i>



Hasardia* <i>Haplopappus squamosus</i>	Prunus <i>Prunus</i> spp.
Hawthorn <i>Crataegus</i> spp.	Raspberry <i>Rubus</i> spp.
Hazel <i>Corylus</i> spp.	Redbud, eastern <i>Cercis canadensis</i>
Hickory <i>Carya</i> spp.	Rose, multiflora <i>Rosa multiflora</i>
Holly, Florida; Brazilian Peppertree <i>Schinus terebinthifolius</i>	Russian-olive <i>Elaeagnus angustifolia</i>
Honeysuckle <i>Lonicera</i> spp.	Sage: black, white <i>Salvia</i> spp.
Hornbeam, American <i>Carpinus caroliniana</i>	Sagebrush, California <i>Artemisia californica</i>
Locust, black* <i>Robinia pseudoacacia</i>	Salmonberry <i>Rubus spectabilis</i>
Manzanita <i>Arctostaphylos</i> spp	Salt cedar* <i>Tamarix</i> spp.
Maple:	Saltbush, Sea myrtle <i>Baccharis halimifolia</i>
Red** <i>Acer rubrum</i>	Sassafras <i>Sassafras albidum</i>
Sugar <i>Acer saccharum</i>	Sourwood* <i>Oxendrum arboreum</i>
Vine* <i>Acer circinatum</i>	Sumac:
Monkey Flower* <i>Mimulus guttatus</i>	Poison* <i>Rhus vernix</i>
Oak:	Smooth* <i>Rhus glabra</i>
Black* <i>Quercus velutina</i>	Winged* <i>Phus copallina</i>
Northern pine <i>Quercus palustris</i>	Sweet gum <i>Liquidambar styraciflua</i>
Post <i>Quercus stellata</i>	Swordfern* <i>Polystichum munitum</i>
Red <i>Quercus rubra</i>	Tallowtree, Chinese <i>Sapium sebiferum</i>
Southern red <i>Quercus falcata</i>	Thimbleberry <i>Rubus parviflorus</i>
White* <i>Quercus alba</i>	Tobacco, tree* <i>Nicotiana glauca</i>
Persimmon* <i>Diospyros</i> spp.	Trumpetcreeper <i>Campsis radicans</i>

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Water Oak <i>Quercus Nigra</i>	Waxmyrtle, southern* <i>Myrica cerifera</i>
Poison Ivy <i>Rhus radicans</i>	Willow <i>Salix spp.</i>
Poison Oak <i>Rhus toxicodendron</i>	

\*Partial control

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

Apply the product as follows to control or partially control the following woody brush and trees.

**Alder/Blackberry/Dewberry/Honeysuckle/Oak, Post/Raspberry** - For control, apply 4-1/2 to 6 pints per acre as a broadcast spray or as a 3/4 to 1-1/4 percent solution with hand-held equipment.

**Aspen, Quaking/Hawthorn/Trumpet creeper** - For control, apply 3 to 4-1/4 pints of this product per acre as a broadcast spray or as a 3/4 to 1-1/4 percent solution with hand-held equipment.

**Birch/Elderberry/Hazel/Salmonberry/Thimbleberry** - For control, apply 3 pints per acre as a broadcast spray or as a 3/4 percent solution with hand-held equipment.

**Broom: French, Scotch** - For control, apply a 1-1/4 to 1-1/2 percent solution with hand-held equipment.

**Buckwheat, California/Hazardia/Monkey Flower/Tobacco, Tree** - For partial control of these species, apply a 3/4 to 1-1/2 percent solution of this product as a foliar spray with hand-held equipment. Thorough coverage of foliage is necessary for best results.

**Catsclaw** - For partial control, apply a 1-1/4 to 1-1/2 percent solution with hand-held equipment when at least 50 percent of the new leaves are fully developed.

**Cherry: Bitter, Black, Pin/Oak, Southern Red/Sweet Gum/Prunus** - For control, apply 3 to 7-1/2 pints of this product per acre as a broadcast spray or as a 1 to 1-1/2 percent solution with hand-held equipment.

**Coyote brush** - For control, apply a 1-1/4 to 1-1/2 percent solution with hand-held equipment when at least 50 percent of the new leaves are fully developed.

**Dogwood/Hickory/Salt cedar** - For partial control, apply a 1 to 2 percent solution of this product with hand-held equipment or 6 to 7-1/2 pints per acre as a broadcast spray.

**Eucalyptus, bluegum** - For control of eucalyptus resprouts, apply a 1-1/2 percent solution of this product with hand-held equipment when resprouts are 6 to 12 feet tall. Ensure complete coverage. Apply when plants are actively growing. Avoid application to drought-stressed plants.

**Holly, Florida/Waxmyrtle, southern** - For partial control, apply this product as a 1-1/2 percent solution with hand-held equipment.

**Kudzu** - For control, apply 6 pints of this product per acre as a broadcast spray or as a 1-1/2 percent solution with hand-held equipment. Repeat applications will be required to maintain control.

**Maple, Red** - For control apply as a 3/4 to 1-1/4 percent solution with hand-held equipment when leaves are fully developed. For partial control, apply 2 to 7-1/2 pints of this product per acre as a broadcast spray.

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**Maple, Sugar/Oak: Northern Pin, Red** - For control, apply as a 3/4 to 1-1/4 percent solution with hand-held equipment when at least 50 percent of the new leaves are fully developed.

**Poison Ivy/Poison Oak** - For control, apply 6 to 7-1/2 pints of this product per acre as a broadcast spray or as a 1-1/2 percent solution with hand-held equipment. Repeat applications may be required to maintain control. Fall treatments must be applied before leaves lose green color.

**Rose, multiflora** - For control, apply 3 pints of this product per acre as a broadcast spray or a 3/4 to 1-1/2 percent solution with hand-held equipment. Treatments should be made prior to leaf deterioration by leaf-feeding insects.

**Sage, black/Sagebrush, California/Chamise/Tallowtree, Chinese** - For control of these species, apply a 3/4 solution of this product as a foliar spray with hand-held equipment. Thorough coverage of foliage is necessary for best results.

**Saltbrush/Sea myrtle** - For control, apply this product as a 1 percent solution with hand-held equipment.

**Willow** - For control, apply 4-1/2 pints of this product per acre as a broadcast spray or as a 3/4 percent solution with hand-held equipment.

**Other woody brush and trees listed in this label** - For partial control, apply 3 to 7-1/2 pints of his product per acre as a broadcast spray or as a 3/4 to 1-1/2 percent solution with hand-held equipment.

NOTE: If brush has been mowed or tilled or trees have been cut, do not treat until regrowth has reached the recommended stage of growth.

#### NONCROP USES

See "GENERAL INFORMATION" and "MIXING, ADDITIVES and APPLICATION INSTRUCTIONS" sections of this label for essential product performance information and the following "NONCROP" sections for specific recommended uses.

EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OR 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. Where repeat applications are necessary, do not exceed 8 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 cautionary statements and all other information appearing on the labels of all herbicides used.

#### INDUSTRIAL, RECREATIONAL AND PUBLIC AREAS

When applied as directed for "NONCROP USES", under conditions described, this product may be used to control the listed weeds in terrestrial non-crop sides within these areas:

Habitat Restoration & Management Area  
Pipeline, Power, Telephone, Utility and Roadside Rights-of-Way  
Pumping Installations

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This product is a non-selective herbicide that is diluted and applied to the foliage of actively growing weeds as a spot or broadcast application. It is absorbed by the leaves and moves throughout the stem and roots to control the entire plant. Visible symptoms may require a week or more to appear, with burndown usually occurring in 2 to 4 weeks. Symptoms are a gradual wilting and yellowing of the sprayed plant followed by deterioration of both shoots and roots. This product has no herbicide activity in the soil and will not wash or leach to affect nearby vegetation. **Any ornamental species may be planted in treated areas 7 days or more after application.** For most effective results, delay mowing, clipping, planting or sodding of treated areas for at least 7 days after application. This allows time for this product to move within the plant.

For specific rates of application and instructions for control of particular annual weeds, perennial weeds, woody brush and trees, see the "WEEDS CONTROLLED" section of this label. These applications may be made to large affected areas or as spot treatments. For general use in small areas, see alternative instructions below under "Small Area Treatment With Hand-held Sprayers".

Unless the "Agriculture Use Requirements" on this label are observed, the following restrictions apply:

Not for use on plants being grown for sale or other commercial use, or for commercial seed production, or for research purposes. For use on plants intended for aesthetic purposes or climatic modification and being grown in ornamental gardens or parks, or on golf courses or lawns and grounds.

AVOID SPRAY DRIFT CONTACT WITH DESIRABLE LAWN GRASSES, FLOWERS, VEGETABLES, SHRUBS OR TREES. DO NOT CONTACT GREEN BARK OF TREES OR SHRUBS. IF DESIRABLE VEGETATION IS CONTACTED, WASH IMMEDIATELY WITH WATER.

Depending on the type of noncrop application, this product may be applied with boom equipment, high-volume spray equipment and hand-held sprayers as described in the respective portions of the "APPLICATION EQUIPMENT and TECHNIQUES" section of the label. Additionally, the product may be applied with recirculating sprayers, shielded applicators, or wiper applicators in any noncrop 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.

Small Area Treatment With Hand-held Sprayers - Add 2-1/4 to 4-1/2 fluid ounces of this product plus 0.5 to 1 fluid ounce of nonionic surfactant to 1 gallon of clean water. Use the lower rate for many grasses and annual weeds. Use the higher recommended rate for control of perennials and brush. Use pump-up sprayer, backpack sprayer or other sprayer suitable for small areas. Adjust equipment to deliver a coarse spray pattern. USE OF HOSE-END SPRAYERS OR SPRINKLER-TYPE DEVICES MAY NOT BE USED.

#### TANK MIXTURES FOR NON-CROP SITES

When applied as a tank mixture, this product provides control of the emerged annual weeds and partial control of the emerged perennial weeds listed in this label. When applied as a tank mixture, the following residual herbicides will provide preemergence control of the weeds listed in the individual product labels.

Foresters' Non-Selective Herbicide + Diuron  
Foresters' plus Krovar® I, Krovar® II  
Foresters' plus Princep®, Caliber™ 90, Simazine 4L, 80W or 90DF  
Foresters' plus Surflan® 75W, Surflan AS  
Foresters' plus Ronstar® 50WP

When tank mixing with residual herbicides, add a nonionic surfactant at 0.5 to 1 percent by volume of spray solution. See the "MIXING, ADDITIVES AND APPLICATION INSTRUCTIONS" section of this label before preparing these tank mixtures.

Read and carefully observe the label claims, precautionary statements, recommended use rate and all other information on the labels of all products used in these tank mixtures.

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

#### CONTROL OF EMERGED WEEDS

Note: For backpack sprayer and handgun applications, see the "HAND-HELD AND HIGH VOLUME EQUIPMENT" section for recommended rates.

**Annual Weeds** - Apply 1-1/2 pints per acre of this product in these tank mixtures when weeds are less than 6 inches tall and 2-1/4 pints per acre when weeds are more than 6 inches tall.

**Perennial Weeds** - For partial control of perennial weeds using these tank mixtures, apply 1-1/2 to 7-1/2 pints per acre of this product. Follow the recommendations in the "WEEDS CONTROLLED" section of this label for stage of growth and rate of application for specific perennial weeds.

#### PREEMERGENCE WEED CONTROL

For preemergence weed control, refer to the individual product labels for specific noncrop sites, rates, carrier volumes and precautionary statements.

Mix only the quantity of spray solution which can be used during the same day. Do not allow these tank mixtures to stand overnight as this may result in reduced weed control.

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

NOTE: NOT RECOMMENDED FOR USE AS AN OVER-THE-TOP BROADCAST SPRAY IN SILVICULTURAL NURSERIES.

When applied as directed for "NONCROP USES" under conditions described, this product controls undesirable vegetation listed on this label. This product also suppresses or controls undesirable vegetation listed on this label when applied at recommended rates for release of established coniferous species 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. For specific rates of application for release of listed coniferous species, see the "CONIFER RELEASE" part of this section of the label.

Where repeat applications are necessary, do not exceed 8 quarts of this product per acre per year.

**Aerial Application** - This product may be applied using aerial spray equipment for silvicultural site preparation, conifer release 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.

### CONIFER RELEASE

For release, apply at the end of the first growing season, except in California. Vegetation of target weeds or trees should not be disturbed prior to treatment or until visual symptoms appear after treatment. Symptoms of treatment are slow to appear, especially in woody species treated in late fall. Injury may occur to conifers treated for release, especially where spray patterns overlap or the higher rates are applied or when applications are made during periods of active conifer growth.

Applications must be made after formation of final conifer resting buds in the fall or prior to initial bud swelling in spring. Some autumn colors on undesirable deciduous species are acceptable provided no major leaf drop has occurred. Use the following rates for conifer release to control or partially control the weeds listed in the "WEEDS CONTROLLED" section of this label. For release of the following conifer species:

Douglas Fir	<i>Pseudotsuga menziesii</i>	Pines*	<i>Pinus</i> spp.
Fir	<i>Abies</i> spp.	Spruce	<i>Picea</i> spp.
Hemlock	<i>Tsuga</i> spp.		

\*Includes all species except eastern white pine, loblolly pine or slash pine.

Apply 2-1/4 to 3 pints of this product per acre except in Washington and Oregon, west of the crest of the Cascade Mountains. For spring treatments west of the crest of the Cascade Mountains, apply 1 quart of this product per acre before conifer bud swell for control of annual weeds. For fall treatments in Washington and Oregon, west of the crest of the Cascade Mountains, apply 1-1/2 to 2-1/4 pints of this product per acre before any major leaf drop of deciduous species. Add 10 oz. nonionic surfactant per 2 pints of Foresters' Non Selective Herbicide.

Note for Douglas Fir release: Ensure that surfactant has been adequately tested for Douglas Fir safety and follow manufacturer's recommendation for rate of application.

For release of western hemlock, apply 1 quart of this product per acre.

For release of the following conifer species:

Loblolly pine	<i>Pinus taeda</i>	Slash pine	<i>Pinus elliotii</i>
Eastern white pine	<i>Pinus strobes</i>		

**Late Season Application** - Apply 2-1/4 to 3 pints of this product in a minimum of 5 gallons of spray solution per acre during early autumn. Applications made prior to September 1 or when conditions are conducive to rapid growth of conifers will create the potential for increased injury in the form of tip and/or needle burn. Injury may decrease with later applications. Some autumn colors are acceptable at time of application. Apply prior to frost or leaf drop of undesirable plants. Applications made according to label directions will release loblolly pine, eastern white pine and slash pine by reducing competition from the following species:

Ash	<i>Fraxinus</i> spp.	Oak, White	<i>Quercus alba</i>
Cherry, Black	<i>Prunus serotina</i>	Persimmon	<i>Diospyros</i> spp.
Cherry, Pin	<i>Prunus pensylvanica</i>	Poplar, yellow	<i>Liriodendron tulipifera</i>
Elm	<i>Ulmus</i> spp.	Sassafras	<i>Sassafras albidum</i>
Hawthorn	<i>Crataegus</i> spp.	Sourwood	<i>Oxydendrum arboreum</i>
Maple, red	<i>Acer rubra</i>	Sumac, Poison	<i>Rhus vernix</i>
Locust, black	<i>Robina pseudoacacia</i>	Sumac, Smooth	<i>Rhus glabra</i>
Oak, Black	<i>Quercus velutina</i>	Sumac, Winged	<i>Rhus copallin</i>
Oak, Post	<i>Quercus stellata</i>	Sweetgum	<i>Liquidambar styraciflua</i>
Oak, Southern Red	<i>Quercus falcata</i>		

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Apply only to those sites where woody brush and trees listed in this label constitute the majority of the undesirable species.

**Foresters'® Non-Selective Herbicide plus Oust® Tank Mixtures  
for Conifer Release from Herbaceous Weeds**

To release loblolly pines, slash, red pine and Virginia pine from herbaceous weeds, tank mixtures of this product with Oust® will provide control of annual weeds listed in the "WEEDS CONTROLLED" section of this and the Oust® label, and partial control of the perennial weeds listed below.

Apply 12 to 13 fluid ounces of this product plus 10 fluid ounces nonionic surfactant per quart Foresters' Non-Selective Herbicide with 2 to 4 ounces of Oust® in 10 to 30 gallons of spray solution per acre. Make application to actively growing weeds as a broadcast spray over the top of the young loblolly, slash, red pine and Virginia pine.

This tank mixture may be applied using aerial equipment. When applying by air, use the recommended rate in 5 to 15 gallons of spray solution per acre. This product plus Oust® tank mixtures may not be applied by air in California.

For control of annual weeds below 12 inches in height (or runner length on annual vines), use the lower rates of both products. Use the higher rates of both products. Use the higher rates of both products when annual weeds are in more advanced stages of growth and approaching flower or seed formation.

Use the higher rates of both products for partial control of the following perennial weeds. Use the lower rates for suppression of growth.

<b>Bahiagrass</b> <i>Paspalum notatum</i>	<b>Johnsongrass*</b> <i>Sorghum halepense</i>
<b>Broomsedge</b> <i>Andropogon virginicus</i>	<b>Poorjoe*</b> <i>Diodia teres</i>
<b>Dock, curly</b> <i>Rumex crispus</i>	<b>Trumpetcreeper**</b> <i>Campsis radicans</i>
<b>Dogfennel</b> <i>Eupatorium capilliflorum</i>	<b>Vaseygrass</b> <i>Paspalum urvillei</i>
<b>Fescus, tall</b> <i>Festuca arundinacea</i>	<b>Vervain, blue</b> <i>Verbena hastata</i>

\*Control at the higher rates

\*\*Suppression at the higher rates only.

Pine damage may occur or can be accentuated if treatment takes place when young trees are under stress from drought, flood water, insects or disease, or are in an active growth stage.

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

**NOTE TO USER**

This product must not be used in areas where adverse impact on federally designated endangered/threatened plant or aquatic species is likely.

Prior to making applications, the user of this product must determine that no such species are located in or immediately adjacent to the area to be treated.

**WIPER APPLICATIONS**

For wick or wiper applications, mix 1 gallon of this product with 2 gallons of clean water to make a 33 percent solution. Addition of a nonionic surfactant at a rate of 10 percent by volume of total herbicide solution is recommended.

Wiper applications can be used to control or suppress annual and perennial weeds listed on this label. In heavy weed stands, a double application in opposite directions may improve results. See the "WEEDS CONTROLLED" section in this label for recommended timing, growth stage and other instructions for achieving optimum results.

**CUT STUMP APPLICATION**

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.** Delay 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:

<b>Alder</b> <i>Alnus spp.</i>	<b>Poplar</b> <i>Populus spp.</i>
<b>Coyote Brush</b> <i>Baccharis consanguinea</i>	<b>Reed, Giant</b> <i>Arundo donax</i>
<b>Dogwood</b> <i>Cornus spp.</i>	<b>Salt cedar</b> <i>Tamarix spp.</i>
<b>Eucalyptus</b> <i>Eucalyptus spp.</i>	<b>Sweet gum</b> <i>Liquidambar styraciflua</i>
<b>Hickory</b> <i>Carya spp.</i>	<b>Sycamore</b> <i>Platanus occidentalis</i>
<b>Madrone</b> <i>Arbutus menziesii</i>	<b>Tan Oak</b> <i>Lithocarpus densiflorus</i>
<b>Maple</b> <i>Acer spp.</i>	<b>Willow</b> <i>Salix spp.</i>
<b>Oak</b> <i>Quercus spp.</i>	

**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 25 to 100 percent concentration of this product either to a continuous frill around the tree or as cuts evenly spaced around the tree below all branches. As tree diameter increases in size, better results are achieved by applying diluted material to a continuous frill or more closely spaced cuttings. 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 these, make frill or cut at an oblique angle so as to produce a cupping effect and use undiluted material. For best results, applications should be made during periods of active growth and after full leaf expansion.



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Control		Suppression	
Oak	<i>Quercus spp.</i>	Black gum	<i>Nyssa sylvatica</i>
Poplar	<i>Populus spp.</i>	Dogwood	<i>Cornus spp.</i>
Sweet Gum	<i>Liquidambar stryaciflua</i>	Hickory	<i>Carya spp.</i>
Sycamore	<i>Platanus occidentalis</i>	Maple, red	<i>Acer rubrum</i>

## WETLAND SITES

This product may be used in and around water (aquatic areas) and wetlands found in forestry and in power, telephone and pipeline rights-of-way sites, including where these sites are adjacent to or surrounding domestic water supply reservoirs, supply streams, lakes and ponds. Read and observe the following before making applications in and around water.

Consult local public water control authorities before applying this product in and around public water. Permits may be required to treat in such areas.

There is no restriction on the use of treated water for irrigation, recreation or domestic purposes.

Note: Do not apply this product directly to water within 1/2 mile upstream of an active potable water intake in flowing water (i.e., river, stream, etc.) or within 1/2 mile of an active potable water intake in a standing body of water such as a lake, pond or reservoir. To make aquatic applications around and within 1/2 mile of active potable water intakes, the water intake must be turned off for a minimum period of 48 hours after application. These aquatic applications may be made ONLY in those cases where there are alternative water sources or holding ponds which would permit the turning off of an active potable water intake for a minimum period of 48 hours after the application. This restriction does not apply to intermittent inadvertent overspray of water in terrestrial use sites.

Do not spray open bodies of water where woody brush, trees and herbaceous weeds do not exist. The maximum application rate of 3-3/4 quarts per acre must not be exceeded in a single over-water broadcast application except as follows, where any recommended rate may be applied:

- Stream crossings in utility right-of-way.
- Where applications will result in less than 20 percent of the total water area being treated.

## WILDLIFE HABITAT RESTORATION AND MANAGEMENT AREAS

This product is recommended for the restoration and/or maintenance of native habitat and in wildlife management areas.

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

Wildlife Food Plots - This product may be used as site preparation treatment prior to planting wildlife food plots. Apply as directed to control vegetation in the plot area. Any wildlife food species may be planted after applying this product, or native species may be allowed to reinfest the area. If tillage is needed to prepare a seedbed, wait 7 days after applying this product before tilling to allow for maximum effectiveness.

**STORAGE AND DISPOSAL**

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

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

**CONTAINER DISPOSAL:** Do not reuse container. Triple rinse container. Then puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

**CONTAINER DISPOSAL FOR REFILLABLE CONTAINERS:** Close all openings which have been opened during use and replace all caps. Contact Nufarm's Customer Service Department at 1-708/754-3330, to arrange for return of the empty refillable container.

**WARRANTY**

Seller warrants that the product conforms to its chemical description and is reasonably fit for the purpose stated on the label when used in accordance with directions under normal conditions of use, but neither this warranty nor any other warranty of merchantability or fitness for a particular purpose, expressed or implied, extends to the use of this product contrary to label instructions, or under abnormal conditions or under conditions not reasonable foreseeable to seller, and buyer and the limit of liability of any such use. The exclusive remedy of user or buyer and the limit of liability of Seller is the purchase price paid for the quantity of product involved. (RV 021403A)

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Princep and Caliber are registered trademarks of Syngenta Crop Protection.

Surflan is a registered trademark of Dow AgroSciences LLC.

This product is protected by U.S. Patent No. 4,405,531. Other patents pending. No license granted under any non-U.S. patent(s).

UPS - Overnight  
February 1, 2004

Document Processing Desk (NOTIF)  
Office of Pesticide Programs (7504C)  
U.S. Environmental Protection Agency  
Crystal Mall Bldg. # 2  
1921 Jefferson Davis Highway  
Arlington, VA 22202

Dear Sir/Madam:

Subject: Riverdale Foresters'  
EPA Registration No. 228-381  
Application for Pesticide: Other  
OPP Identifier No. 292601  
Label Revision

We wish to notify the Agency we are attempting to eliminate any ambiguity regarding roadsides being an acceptable application site.

We have enclosed an extra copy of the label highlighted to show **just the changes contained in the submission.**

Thank you for your continuing assistance.

Sincerely yours,

RIVERDALE - A NUFARM COMPANY



By Russell F. Sawyer  
Regulatory Affairs Manager

RFS:jb

Enclosures

