

524-505

3-31-1999

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U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs
Registration Division (H7505C)
401 "M" St., S.W.
Washington, D.C. 20460

EPA Reg. Number:

524-505

Date of Issuance:

MAR 31 1999

NOTICE OF PESTICIDE:

Registration
 Reregistration

(under FIFRA, as amended)

Term of Issuance:

Conditional

Name of Pesticide Product:

Roundup ProDry
Herbicide

Name and Address of Registrant (include ZIP Code):

Monsanto Company
700 14th Street, N.W. Suite #1100
Washington, DC 20005

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with section 3(c)(7)(A) and (B) of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) provided that you:

1. Submit/cite all data required for registration/reregistration of your product under FIFRA section 3(c)(5) or 4 when the Agency requires all registrants of similar products to submit such data.
2. Make the labeling changes listed below before you release the product for shipment.
 - a. Add the phrase "EPA Registration No. 524-505."
 - b. The statement "Harmful If Swallowed" must be added to the headings "Hazards to Humans and Domestic Animals".
 - c. One of the following statements must be added under "First Aid"

Signature of Approving Official:

Date:

03-31-99

IF SWALLOWED: Call a physician or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching back of the throat with finger. If a person is unconscious, do not give anything by mouth and do not induce vomiting.

OR

IF SWALLOWED: Call a physician or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger or if available by administering syrup of ipecac. If a person is unconscious, do not give anything by mouth and do not induce vomiting.

3. Submit three(3) copies of your final printed labeling before you release the product for shipment.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

A stamped copy of labeling is enclosed for your records.

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ROUNDUP PRODRY

Herbicide by Monsanto

Complete Directions for Use

EPA Reg. No. 524-~~XXX~~LNL

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

A member of the Roundup family of herbicides.

Roundup ProDry is a trademark of Monsanto Company.

The President's Green Chemistry Award was presented in 1996 to Monsanto for its innovative "zero-waste" process in the manufacture of Roundup Herbicide.

Read the entire label before using this product.

Use only according to label instructions.

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

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

THIS IS AN END-USE PRODUCT. MONSANTO DOES NOT INTEND AND HAS NOT REGISTERED IT FOR REFORMULATION OR REPACKAGING. REFORMULATION OR REPACKAGING IS PROHIBITED.

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1.0 INGREDIENTS

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ACTIVE INGREDIENT:

*Glyphosate, N-(phosphonomethyl)
glycine, in the form of its ammonium salt 71.4%

OTHER INGREDIENTS: 28.6%

100.0%

* Equivalent to 64.9% of the acid, glyphosate

1.156 pounds of Roundup ProDry contains 0.75 pounds of glyphosate acid, and is equivalent to 1 quart of liquid Roundup Pro Herbicide.

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).

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2.0 IMPORTANT PHONE NUMBERS

- 1. FOR PRODUCT INFORMATION OR ASSISTANCE IN USING THIS PRODUCT,
CALL TOLL-FREE,
1-800-332-3111
- 2. IN CASE OF AN EMERGENCY INVOLVING THIS PRODUCT, OR FOR MEDICAL
ASSISTANCE, CALL COLLECT, DAY OR NIGHT,
(314)-694-4000

3.0 PRECAUTIONARY STATEMENTS

3.1 Hazards to Humans and Domestic Animals

Keep out of reach of children.

CAUTION!

CAUSES MODERATE EYE IRRITATION

Avoid contact with eyes or clothing

FIRST AID: IF IN EYES, flush with plenty of water. Get medical attention if irritation persists.

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.

ACCEPTED
with COMMENTS
In EPA Boston Office
MAR 31 1999
Under the Federal Insecticide,
Fungicide, and Rodenticide Act
as amended, for the pesticide
registered under EPA Reg. No. 524-505

Personal Protective Equipment (PPE)

Applicators and other handlers must wear: long-sleeved shirt and long pants, and shoes plus socks. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

Engineering controls 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) (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.



3.2 Environmental Hazards

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

3.3 Physical or Chemical Hazards

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

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

DIRECTIONS FOR USE

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

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, waterproof gloves, 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.

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Keep people and pets off treated areas until spray solution has dried to prevent transfer of this product onto desirable vegetation.

4.0 STORAGE AND DISPOSAL

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

See container label for STORAGE AND DISPOSAL instructions.

[Container labels statements]

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 bag retains product residue. Observe all labeled safeguards until container is destroyed.

Completely empty bag into application equipment. Then dispose of empty bag and box in a sanitary landfill or by incineration or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Completely empty container by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application equipment. Dispose of container in a sanitary landfill or by incineration if allowed by state and local authorities.

5.0 GENERAL INFORMATION (HOW THIS PRODUCT WORKS)

Product Description: This product is a postemergent, systemic herbicide with no soil residual activity. It is generally non-selective and gives broad spectrum control of many annual weeds, perennial weeds, woody brush and trees. It is formulated as a water-soluble granule containing surfactant and no additional surfactant is needed or recommended. It may be applied through most standard sprayers after dilution and thorough mixing with water according to label instructions.

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

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

Cultural Considerations: 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 recommended stage for treatment.

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

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

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

Environmental Fate: When this product comes in contact with soil, it is bound to soil particles and organic matter. Under recommended use situations, once this product is bound to soil particles and organic matter, it is not available for plant uptake and will not harm off-site vegetation where roots grow into the treated area or if the soil is transported off-site. The strong affinity of this product to soil particles and organic matter 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 microflora. **Volatility:** Roundup ProDry is non-volatile. Therefore, it cannot move as a vapor after application to affect nearby vegetation.

Toxicology Testing: Exposure to workers and other applicators generally is expected to pose minimal risks based on results of short-term toxicity studies. Glyphosate has been thoroughly tested and determined not to cause cancer or other adverse long-term health effects.

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

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

Annual Maximum Use Rate: Except as otherwise specified in a crop section of this label, the combined total of all treatments must not exceed 9.25 pounds of this product per acre per year.

For noncrop uses, the combined total of all treatments must not exceed 12.25 pounds of this product per acre per year.

ATTENTION

AVOID CONTACT OF HERBICIDE WITH FOLIAGE, GREEN STEMS, EXPOSED NON-WOODY ROOTS OR FRUIT OF CROPS, DESIRABLE PLANTS AND TREES, BECAUSE 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 to the crop, plants or

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other areas on which treatment was not intended. The likelihood of injury occurring from the use of this product increases when winds are gusty, as wind velocity increases, when wind direction is constantly changing or when there are other meteorological conditions that favor spray drift. When spraying, avoid combinations of pressure and nozzle type that will result in splatter or 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. Keep container closed to prevent spills and contamination.

6.0 MIXING

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

NOTE: REDUCED RESULTS MAY OCCUR IF WATER CONTAINING SOIL IS USED, SUCH AS VISIBLY MUDDY WATER OR WATER FROM PONDS AND DITCHES THAT IS NOT CLEAR.

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.

6.1 Procedure For Preparing Spray Solution

Use the following procedure to mix this product in water alone or when preparing tank mixtures with other labeled products.

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. Add Roundup ProDry using a circular motion while pouring.
4. If second product is a wettable powder, first make a slurry with the water carrier, then add the slurry **SLOWLY** through the screen into the tank. Continue agitation.
5. If a flowable formulation is used, premix one part flowable with one part water. Add diluted mixture **SLOWLY** through the screen into the tank. Continue agitation.
6. If an emulsifiable concentrate formulation is used, premix one part emulsifiable concentrate with two parts water. Add diluted mixture slowly through the screen into the tank. Continue agitation.
7. Continue filling the spray tank with water and add water soluble liquids near the end of the filling process.

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.

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Keep by-pass line on or near the bottom of the tank to minimize foaming. Screen size in nozzle or line strainers should be no finer than 50 mesh.

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

Refer to the "Tank Mixing" section of "GENERAL INFORMATION" for additional precautions.

6.2 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. Stir or agitate to ensure dissolution of Roundup ProDry. For use in backpack sprayers, it is suggested that the recommended amount of this product be mixed with water in a larger container. Fill sprayer with the mixed solution.

Spray Solution

Desired Volume %W/W	Amount of Roundup ProDry				
	0.64%	0.97%	1.3%	3.2%	6.4%
1 Gal	0.8 oz	1.2 oz	1.53 oz	3.6 oz	7.2 oz
3 Gal	2.4 oz	3.6 oz	4.8 oz	12.0 oz	1.5 lb
25 Gal	1.25 lb	2.0 lb	2.5 lb	6.0 lb	12.0 lb
100 Gal	5 lb	7.5 lb	10 lb	25 lb	50 lb

Above percentages are on a weight-to-weight basis with water as an 8.34 pound gallon. A 0.64% solution of Roundup ProDry contains approximately the same amount of glyphosate acid as a 1% volume-to-volume solution of Roundup Pro Herbicide.

6.3 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 dilution. Use colorants or dyes according to the manufacturer's recommendations.

6.4 Drift Control Additives

Drift control additives may be used with all equipment types, except wiper applicators, sponge bars and CDA equipment. When a drift control additive is used, read and carefully observe the cautionary statements and all other information appearing on the additive label.

7.0 APPLICATION EQUIPMENT AND TECHNIQUES

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

APPLY THESE SPRAY SOLUTIONS IN PROPERLY MAINTAINED AND CALIBRATED EQUIPMENT CAPABLE OF DELIVERING DESIRED VOLUMES.

7.1 Aerial Equipment

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

FOR AERIAL APPLICATION IN CALIFORNIA, REFER TO THE FEDERAL SUPPLEMENTAL LABEL FOR AERIAL APPLICATIONS IN THAT STATE FOR SPECIFIC INSTRUCTIONS, RESTRICTIONS AND REQUIREMENTS. This product plus Banvel™ or 2,4-D tank mixtures may not be applied by air in California.

AVOID DRIFT--DO NOT APPLY DURING LOW-LEVEL INVERSION CONDITIONS, WHEN WINDS ARE GUSTY OR UNDER ANY OTHER CONDITION WHICH FAVORS DRIFT. DRIFT IS LIKELY TO 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.

Avoid direct application to any body of water.

Use the recommended rates of this herbicide in 3 to 25 gallons of water per acre.

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.

PROLONGED EXPOSURE OF THIS PRODUCT TO UNCOATED STEEL SURFACES MAY RESULT IN CORROSION AND POSSIBLE FAILURE OF THE PART. The maintenance of an organic coating (paint) which meets aerospace specification MIL-C-38413 may prevent corrosion. To prevent corrosion of exposed parts, thoroughly wash aircraft after each day of spraying to remove residues of this product accumulated during spraying or from spills. Landing gear are most susceptible.

7.2 Ground Broadcast Equipment

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

7.3 Hand-Held and High-Volume Equipment

Apply to foliage of vegetation to be controlled. For applications made on a spray-to-wet basis, spray coverage should be uniform and complete. Do not spray to the point of runoff. Use coarse sprays only.

For control of weeds listed in the "Annual Weeds" section of "WEEDS CONTROLLED", apply a 0.32 percent WW solution of this product to weeds less than 6 inches in height or runner length. For annual weeds over 6 inches tall, or unless otherwise specified, use a 0.64 percent WW solution. Apply prior to seedhead formation in grass or bud formation in broadleaf weeds.

For best results, use a 1.3 percent W/W solution on harder-to-control perennials, such as bermudagrass, dock, field bindweed, hemp dogbane, milkweed and Canada thistle.

For low volume directed spray applications, use a 3.2 to 6.4 percent W/W solution of this product for control or partial control of annual weeds, perennial weeds, or woody brush and trees. Spray coverage should be uniform with at least 50 percent of the foliage contacted. Coverage of the top one half of the plant is important for best results. To ensure adequate spray coverage, spray both sides of large or tall woody brush and trees, when foliage is thick and dense, or where there are multiple sprouts.

8.0 SITE AND USE RECOMMENDATIONS

Detailed instructions follow alphabetically, by site.

Unless otherwise specified, applications may be made to control any weeds listed in the annual, perennial and woody brush tables.

8.1 General Noncrop Areas and Industrial Sites

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

General weed control, Trim-and-edge and Bare ground

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

Repeated applications of this product may be used, as weeds emerge, to maintain bare ground.

This product may be tank mixed with the following products. Refer to these products' labels for approved noncrop sites and application rates.

- | | |
|-----------------|------------------|
| ARSENAL™ | PENDULUM™ 3.3 EC |
| BANVEL | PENDULUM WDG |
| BARRICADE™ 65WG | PLATEAU™ |
| DIURON | PRINCEP™DF |
| ENDURANCE™ | PRINCEP™ LIQUID |
| ESCORT™ | RONSTAR™ 50WP |
| GARLON™ 3A | SAHARA™ |
| GARLON 4 | SIMAZINE |
| KARMEX™ DF | SURFLAN™ |
| KROVAR™ I DF | TELAR™ |
| MANAGE® | 2,4-D |
| OUST™ | |

Banvel and 2,4-D tank mixtures may not be applied by air in California.

When applied as a tank mixture for bare ground, this product provides control of the emerged annual weeds and control or partial control of emerged perennial weeds, woody brush and trees.

For control or partial control of the following perennial weeds, apply 1.2 to 2.4 lb of this product plus 2 to 4 ounces of Oust per acre.

- | | |
|--------------|---------------|
| Bahiagrass | Johnsongrass |
| Bermudagrass | Poorjoe |
| Broomsedge | Quackgrass |
| Dallisgrass | Vaseygrass |
| Dock, curly | Vervain, blue |
| Dogfennel | |
| Fescue, tall | |

Chemical mowing - Perennials

This product will suppress perennial grasses listed in this section to serve as a substitute for mowing. Use 4.8 ounces of this product per acre when treating tall fescue, fine fescue, orchardgrass, smooth brome, reed canarygrass or quackgrass covers. Use 3.6 ounces of this product per acre when treating Kentucky bluegrass. Apply treatments in 10 to 40 gallons of spray solution per acre. Apply after grasses have greened up to at least 75% green color in the spring, or 7 - 10 days after mowing when sufficient regrowth has occurred to provide a desirable height for growth regulation.

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 2.4 ounces of this product in 10 to 40 gallons of spray solution per acre. Applications should be made when annual grasses are actively growing and before the seedheads are in the boot stage of development. Treatments may cause injury to the desired grasses.

Dormant turfgrass

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

Apply 4.8 to 38.4 ounces of this product per acre. Apply the recommended rates in 10 to 40 gallons of water per acre. Use only in areas where bermudagrass or bahiagrass are desirable ground covers and where some temporary injury or discoloration can be tolerated.

Treatments in excess of 9.6 ounces per acre may result in injury or delayed greenup in highly maintained areas, such as golf courses and lawns. DO NOT apply tank mixtures of this product plus Oust in highly maintained turfgrass areas. For further uses, refer to the "ROADSIDES" section of this label, which gives rates for dormant bermudagrass and bahiagrass treatments.

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Actively growing bermudagrass

This product may be used to control or partially control many annual and perennial weeds for effective release of actively growing bermudagrass. DO NOT apply more than 9.6 ounces of this product per acre in highly maintained turfgrass areas. DO NOT apply tank mixtures of this product plus OUST in highly maintained turfgrass areas. For further uses, refer to the "ROADSIDES" section of this label, which gives rates for actively growing bermudagrass treatments. Use only in areas where some temporary injury or discoloration can be tolerated.

Turfgrass renovation, seed, or sod production

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

Do not disturb soil or underground plant parts before treatment. Tillage or renovation techniques such as vertical mowing, coring or slicing should be delayed for 7 days after application to allow translocation into underground plant parts.

Desirable turfgrasses may be planted following the above procedures.

Hand-held equipment may be used for spot treatment of unwanted vegetation growing in existing turfgrass. Broadcast or hand-held equipment may be used to control sod remnants or other unwanted vegetation after sod is harvested.

Do not feed or graze turfgrass grown for seed or sod production for 8 weeks following application.

8.2 FORESTRY SITE PREPARATION

This product is recommended for the control or partial control of woody brush, trees and herbaceous weeds in forestry. This product is also recommended for use in preparing or establishing wildlife openings within these sites and maintaining logging roads.

This product is recommended for use in site preparation prior to planting any tree species, including Christmas trees, eucalyptus, hybrid tree cultivars and silvicultural nursery sites.

APPLICATION RATES AND TIMING

APPLICATION	ROUNDUP PRODRY	SPRAY VOLUME GAL/A
BROADCAST		
Aerial	2.4 to 12 lb/a	5 to 30
Ground	2.4 to 12 lb/a	10 to 60
SPRAY-TO-WET		

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Handgun, Backpack,	1.3 % WW	spray-to-wet
LOW VOLUME DIRECTED SPRAY		
Handgun, Backpack,	3.2 % to 6.4 % WW	partial coverage*

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

Use higher rates of this product within the recommended range for control or partial control of woody brush, trees and hard-to-control perennial herbaceous weeds. For best results, apply to actively growing woody brush and trees after full leaf expansion and before fall color and leaf drop. Increase rates within the recommended range for control of perennial herbaceous weeds any time after emergence and before seedheads, flowers or berries appear.

Use the lower rates of this product within the recommended range for control of annual herbaceous weeds and actively growing perennial herbaceous weeds after seedheads, flowers or berries appear. Apply to the foliage of actively growing annual herbaceous weeds any time after emergence.

This product has no herbicidal or residual activity in the soil. Where repeat applications are necessary, do not exceed 12 lb of this product per acre per year.

TANK MIXTURES

Tank mixtures of this product may be used to increase the spectrum of vegetation controlled. When tank mixing, read and carefully observe the label claims, cautionary statements and all information on the labels of all products used. Use according to the most restrictive precautionary statements for each product in the mixture.

NOTE: For forestry site preparation, make sure the tank-mix product is approved for use prior to planting the desired species. Observe planting interval restrictions.

Any recommended rate of this product may be used in a tank mix with the following products for forestry site preparation.

PRODUCT	BROADCAST RATE
Arsenal Applicators Concentrate	2 to 16 fl oz /a
Escort	½ to 3 ½ oz/a
Chopper™	4 to 32 fl oz/a
Garlon 4	1 to 4 qts/a
Oust	1 to 4 oz/a
PRODUCT	SPRAY-TO-WET RATES
Arsenal Applicators Concentrate	1/32 % to 1/2 % by volume
PRODUCT	LOW VOLUME DIRECTED SPRAY RATES
Arsenal Applicators Concentrate	1/8% to 1/2% by volume

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

DO NOT APPLY THIS PRODUCT AS AN OVER-THE-TOP BROADCAST SPRAY FOR FORESTRY CONIFER OR HARDWOOD RELEASE.

8.3 Habitat Management

Habitat restoration and management

This product may be used to control exotic and other undesirable vegetation in habitat management and natural areas, including rangeland and wildlife refuges. 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. Spot treatments can be made to selectively remove unwanted plants for habitat management and enhancement.

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 application before tillage to allow translocation into underground plant parts.

8.4 Ornamentals and Plant Nurseries, Christmas Trees

Post-directed, Trim-and-edge

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

Desirable plants may be protected from the spray solution by using shields or coverings made of cardboard or other impermeable material. **THIS PRODUCT IS NOT RECOMMENDED FOR USE AS AN OVER-THE-TOP BROADCAST SPRAY IN ORNAMENTALS AND CHRISTMAS TREES.** Care must be exercised to avoid contact of spray, drift or mist with foliage or green bark of established ornamental species.

Site preparation

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

Greenhouse/Shadehouse

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

8.5 Parks, Recreational and Residential Areas

This product may be used in parks, recreational and residential areas. It may be applied with any application equipment described in this label. This product may be used to trim-and-edge around

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trees, fences, paths, around buildings, sidewalks, and other objects in these areas. This product may be used for spot treatment of unwanted vegetation. This product may be used to eliminate unwanted weeds growing in established shrub beds or ornamental plantings. This product may be used prior to planting an area to ornamentals, flowers, turfgrass (sod or seed), or prior to laying asphalt or beginning construction projects.

All of the instructions in the "GENERAL NONCROP AREAS AND INDUSTRIAL SITES" section apply to park and recreational areas.

8.6 Railroads

All of the instructions in the "GENERAL NONCROP AREAS AND INDUSTRIAL SITES" section apply to railroads.

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

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

- | | |
|----------|-------------|
| ARSENAL | KROVAR I DF |
| BANVEL | OUST |
| DIURON | SAHARA |
| ESCORT | SPIKE™ |
| GARLON3A | TELAR |
| GARLON 4 | 2,4-D |
| HYVAR™ X | |

Brush control

This product may be used to control woody brush and trees on railroad rights-of-way. Apply 4.8 to 12 lb of this product per acre as a broadcast spray, using boom-type or boomless nozzles. Up to 80 gallons of spray solution per acre may be used. Apply a 1.3 percent WW solution of this product when using high-volume spray-to-wet applications. Apply a 3.2 to 6.4 percent WW solution of this product when using low volume directed sprays for spot treatment. This product may be mixed with the following products for enhanced control of woody brush and trees:

- | | |
|-----------|-----------|
| ARSENAL | GARLON 4 |
| ESCORT | TORDON™ K |
| GARLON 3A | |

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 0.6 to 1.8 lb of this product in up to 80 gallons of spray solution per acre. Use the lower rate when treating annual weeds below 6 inches in height (or runner length). Use the higher rate as weeds increase in size or as they approach flower or seedhead-formation. These rates will also provide partial control of the following perennial species:

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Bahiagrass	Johnsongrass
Bluestem, silver	Trumpetcreeper
Fescue, tall	Vaseygrass

This product may be tank-mixed with Oust. If tank-mixed, use no more than 0.6 to 1.8 lb of this product with 1 to 2 ounces of Oust per acre. Use the lower rates of each product to control annual weeds less than 6 inches in height (or runner length) that are listed in this label and the Oust label. Use the higher rates as annual weeds increase in size and approach the flower or seedhead stages. These rates will also provide partial control of the following perennial weeds:

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

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

8.7 RANGELANDS

TYPES OF APPLICATIONS: Postemergence

USE INSTRUCTIONS: This product will control or suppress many annual weeds growing in perennial cool and warm season grass rangelands.

Preventing viable seed production is key to the successful control and invasion of annual grassy weeds in rangelands. Follow-up applications in sequential years should eliminate most of the viable seeds.

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

PRECAUTIONS, RESTRICTIONS: Do not use ammonium sulfate when spraying rangeland grasses with this product. Do not make more than one application per year.

Postemergence

Apply 7-9.5 ounces per acre of this product to control or suppress many weeds, including downy brome, cheat grass, cereal rye and jointed goatgrass in rangelands. Apply when most mature brome plants are in early flower and before the plants including seedheads turn color. Allowing for secondary weed flushes to occur in the spring following rain events further depletes the seed reserve, and encourages perennial grass conversion on weedy sites. Fall applications are possible, and recommended where spring moisture is usually limited and fall germination allows for good weed growth.

Apply 9.5 ounces per acre when the medusahead has reached the 3 leaf stage. Delaying applications beyond this stage will result in reduced or unacceptable control. Fire may be useful in

eliminating the thatch layer produced by slow decaying culms prior to application. Allow new growth to occur before spraying after a burn. Repeat applications in subsequent years may be necessary to eliminate the seedbank before reestablishing desirable perennial grasses in medusahead dominated rangelands.

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.

8.8 Roadsides

All of the instructions in the "GENERAL NONCROP AREAS AND INDUSTRIAL SITES" section apply to roadsides.

Shoulder treatments

This product may be used on road shoulders. It may be applied with boom sprayers, shielded boom sprayers, high-volume off-center nozzles, hand-held equipment, and similar equipment.

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 the following products for shoulder, guardrail, spot and bare ground treatments:

- | | |
|-----------------|----------------|
| BANVEL | PRINCEP DF |
| DIURON | PRINCEP LIQUID |
| ENDURANCE | RONSTAR 50WP |
| ESCORT | SAHARA |
| KROVAR I DF | SIMAZINE |
| OUST | SURFLAN |
| PENDULUM 3.3 EC | TELAR |
| PENDULUM WDG | 2,4-D |

See the "GENERAL NONCROP AREAS AND INDUSTRIAL SITES" section of this label for general instructions for tank mixing.

Release of Bermudagrass or Bahiagrass

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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 Oust for residual control. Tank mixtures of this product with Oust 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 4.8 to 38.4 ounces of this product per acre alone or in a tank mixture with 1/4 to 1 ounce per acre of Oust. Apply the recommended rates in 10 to 40 gallons of water per acre. Use only in areas where bermudagrass or bahiagrass are desirable ground covers and where some temporary injury or discoloration can be tolerated. To avoid delays in greenup and minimize injury, add no more than 1 ounce of Oust per acre on bermudagrass and no more than 0.5 ounce of Oust per acre on bahiagrass and avoid treatments when these grasses are in a 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 9.6 to 28.8 ounces of this product in 10 to 40 gallons of spray solution per acre. Use the lower rate when treating annual weeds below 6 inches in height (or runner length). Use the higher rate as weeds increase in size or as they approach flower or seedhead formation. These rates will also provide partial control of the following perennial species:

- | | |
|------------------|----------------|
| Bahiagrass | Johnsongrass |
| Bluestem, silver | Trumpetcreeper |
| Fescue, tall | Vaseygrass |

This product may be tank-mixed with Oust. If tank-mixed, use no more than 9.6 to 19.2 ounces of this product with 1 to 2 ounces of Oust per acre. Use the lower rates of each product to control annual weeds less than 6 inches in height (or runner length) that are listed in this label and the Oust label. Use the higher rates as annual weeds increase in size and approach the flower or seedhead stages. These rates will also provide partial control of the following perennial weeds:

- | | |
|------------------|----------------|
| Bahiagrass | Fescue, tall |
| Bluestem, silver | Johnsongrass |
| Broomsedge | Poorjoe |
| Dallisgrass | Trumpetcreeper |
| Dock, curly | Vaseygrass |
| Dogfennel | Vervain, blue |

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

Actively growing bahiagrass

For suppression of vegetative growth and seedhead inhibition of bahiagrass for approximately 45 days, apply 3.6 ounces of this product in 10 to 40 gallons of water 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 2.4 ounces of this product per acre, followed by an application of 1. to 2.4 ounces per acre about 45 days later. Make no more than 2 applications per year.

A tank mixture of this product plus Oust may be used. Apply 3.6 ounces of this product plus 0.25 ounce of Oust per acre 1 to 2 weeks following an initial spring mowing. Make only one application per year.

9.0 WEEDS CONTROLLED

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

Reduced results may occur when treating weeds heavily covered with dust. For weeds that have been mowed, grazed or cut, allow regrowth to occur prior to treatment.

Refer to the following label sections for recommended rates for the control of annual and perennial weeds and woody brush and trees. For difficult to control perennial weeds and woody brush and trees, where plants are growing under stressed conditions, or where infestations are dense, this product may be used at 6 to 12 lb per acre for enhanced results.

9.1 Annual Weeds

Use 1.2 lb per acre if weeds are less than 6 inches in height or runner length and 1.8 lb to 4.8 lb per acre if weeds are over 6 inches in height or runner length or when weeds are growing under stressed conditions.

For spray-to-wet applications, apply a 0.32 percent W/W solution of this product to weeds less than 6 inches in height or runner length. Apply prior to seedhead formation in grass or bud formation in broadleaf weeds. For annual weeds over 6 inches tall, or for smaller weeds growing under stressed conditions, use a 0.64 to 1.3 percent W/W solution. Use the higher rate for tough-to-control species or for weeds over 24 inches tall.

WEED SPECIES

- Annoda, spurred
- Barley*
- Barnyardgrass*
- Bittercress*
- Black nightshade*
- Bluegrass, annual*
- Bluegrass, bulbous*
- Bassia, fivehook

Brome, downy*
Brome, Japanese*
Browntop panicum*
Buttercup*
Carolina foxtail*
Carolina geranium
Castor bean
Cheatgrass*
Cheeseweed (*Malva parviflora*)
Chervil*
Chickweed*
Cocklebur*
Copperleaf, hophornbeam
Corn*
Corn speedwell*
Crabgrass*
Dwarf dandelion*
Eastern manna grass*
Eclipta*
Fall panicum*
Falsedandelion*
False flax, smallseed*
Fiddleneck
Field pennycress*
Filaree
Fleabane, annual*
Fleabane, hairy (*Conyza bonariensis*)*
Fleabane, rough*
Florida pusley
Foxtail*
Goatgrass, jointed*
Goosegrass
Grain sorghum (milo)*
Groundsel, common*
Hemp sesbania
Henbit
Horseweed/Marestail (*Conyza canadensis*)
Itchgrass*
Johnsongrass, seedling
Junglerice
Knotweed
Kochia
Lambsquarters*
Little barley*
London rocket*
Mayweed
Medusahead*
Morningglory (*Ipomoea spp.*)
Mustard, blue*
Mustard, tansy*
Mustard, tumble*
Mustard, wild*
Oats
Pigweed*

- Plains/Tickseed coreopsis*
- Prickly lettuce*
- Purslane, common
- Ragweed, common*
- Ragweed, giant
- Red rice
- Russian thistle
- Rye*
- Ryegrass*
- Sandbur, field*
- Shattercane*
- Shepherd's-purse*
- Sicklepod
- Signalgrass, broadleaf*
- Smartweed, ladythumb*
- Smartweed, Pennsylvania*
- Sowthistle, annual
- Spanishneedles
- Speedwell, purslane*
- Sprangletop*
- Spurge, annual
- Spurge, prostrate*
- Spurge, spotted*
- Spurry, umbrella*
- Starthistle, yellow
- Stinkgrass*
- Sunflower*
- Teaweed/ Prickly sida
- Texas panicum*
- Velvetleaf
- Virginia copperleaf
- Virginia pepperweed*
- Wheat*
- Wild oats*
- Witchgrass*
- Woolly cupgrass*
- Yellow rocket

*When using field broadcast equipment (aerial applications or boom sprayers using flat fan nozzles) these species will be controlled or partially controlled using 0.6 lb of this product per acre. Applications must be made using 3 to 10 gallons of carrier volume per acre. Use nozzles that ensure thorough coverage of foliage and treat when weeds are in an early growth stage.

9.2 Perennial Weeds

Best results are obtained when perennial weeds are treated after they reach the reproductive stage of growth (seedhead initiation in grasses and bud formation in broadleaves). For non-flowering plants, best results are obtained when the plants reach a mature stage of growth. In many situations, treatments are required prior to these growth stages. Under these conditions, use the higher application rate within the recommended range.

Ensure thorough coverage when using spray-to-wet treatments using hand-held equipment. When using hand-held equipment for low volume directed spot treatments, apply a 3.2 to 6.4 percent W/W solution of this product.

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Allow 7 or more days after application before tillage.

Weed Species	Rate (lb/a)	Hand-Held % Solution W/W
Alfalfa*	1.25	1.3
Alligatorweed*	5	1
Anise (fennel)	2.5-5.0	.64- 1.3
Bahiagrass	3.75-6.25	1.3
Beachgrass, European (Ammophila arenaria)	-	3.2
Bentgrass*	2	1.3
Bermudagrass	6.25	1.3
Bermudagrass, water (knotgrass)	2	1.3
Bindweed, field	5.0-6.25	1.3
Bluegrass, Kentucky	2.5	1.3
Blueweed, Texas	5.0-6.25	1.3
Brackenfern	3.75-5.0	0.64-1.0
Bromegrass, smooth	2.5	1.3
Bursage, woolly-leaf	-	1.3
Canarygrass, reed	2.5-3.75	1.3
Cattail	3.75-6.25	1.3
Clover, red, white	3.75-6.25	1.3
Cogongrass	3.75-6.25	1.3
Dallisgrass	3.75-6.25	1.3
Dandelion	3.75-6.25	1.3
Dock, curly	3.75-6.25	1.3
Dogbane, hemp	5	1.3
Fescue (except tall)	3.75-6.25	1.3
Fescue, tall	1.25-3.75	1.3
German ivy	2.5-5.0	0.64-1.3
Guineagrass	3.75	0.64
Horsenettle	3.75-6.25	1.3
Horseradish	5	1.3
Iceplant	2.5	1.3
Jerusalem artichoke	3.75-6.25	1.3
Johnsongrass	2.75-3.75	0.64
Kikuyugrass	2.75-3.75	1.3
Knapweed	5	1.3
Lantana	-	1.0-1.3
Lespedeza	3.75-6.25	1.3
Milkweed, common	3.75	1.3
Muhly, wirestem	2.5	1.3
Mullein, common	3.75-6.25	1.3
Napierrgrass	3.75-6.25	1.3
Nightshade, silverleaf	2.5	1.3
Nutsedge; purple, yellow	3.75	0.64-1.3
Orchardgrass	2.5	1.3
Pampasgrass	3.75-6.25	1.0-1.3
Paragrass	3.75-6.25	1.3
Pepperweed, perennial	5	1.3
Phragmites*	3.75-6.25	0.64-1.3

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Poison hemlock	2.5-5.0	0.64-1.3
Quackgrass	2.75-3.75	1.3
Redvine*	2.5	1.3
Reed, giant	5-6.25	1.3
Ryegrass, perennial	2.75-3.75	1
Smartweed, swamp	3.75-6.25	1.3
Spurge, leafy*	-	1.3
Sweet potato, wild*	-	1.3
Thistle, artichoke	2.75-3.75	0.64-1.3
Thistle, Canada	2.75-3.75	1.3
Timothy	2.75-3.75	1.3
Torpedograss*	5-6.25	1.3
Trumpet creeper*	2.75-3.75	1.3
Vaseygrass	3.75-6.25	1.3
Velvetgrass	3.75-6.25	1.3
Wheatgrass, western	2.75-3.75	1.3

*Partial control

9.3 Woody Brush and Trees

Apply this product after full leaf expansion, unless otherwise directed. Use the higher rate for larger plants and/or dense areas of growth. On vines, use the higher rate for plants that have reached the woody stage of growth. Best results are obtained when application is made in late summer or fall after fruit formation.

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

Ensure thorough coverage when using spray-to-wet treatments using hand-held equipment. When using hand-held equipment for low volume directed-spray spot treatments, apply a 3.2 to 6.4 percent solution of this product.

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.

Weed Species	Broadcast Rate (lb/a)	Hand-Held Spray-to-Wet % Solution W/W
Alder	3.75-5.0	0.64-1.3
Ash*	2.5-6.25	0.64-1.3
Aspen, quaking	2.5-3.75	0.64-1.3
Bearclover (Bearnat)*	2.5-6.25	0.64-1.3
Beech*	2.5-6.25	0.64-1.3
Birch	2.5	0.64
Blackberry	3.75-5.0	0.64-1.3
Blackgum	2.5-6.25	0.64-1.3
Bracken	2.5-6.25	0.64-1.3
Broom; French, Scotch	2.5-6.25	0.64-1.3

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Buckwheat, California*	2.5-5.0	0.64-1.3
Cascara*	2.5-6.25	0.64-1.3
Castor bean	5.0	1.3
Catsclaw*	-	0.64-1.3
Ceanothus*	2.5-6.25	0.64-1.3
Chamise*	2.5-6.25	0.64
Cherry; bitter, black, pin	2.5-3.75	0.64-1.3
Cottonwood, eastern	5.0	1.3
Coyote brush	3.75-5.0	1.0-1.3
Cypress, swamp, bald	5.0	1.3
Deerweed	2.5-6.25	0.64
Dogwood*	2.5-6.25	0.64-1.3
Elderberry	2.5	0.64
Elm*	2.5-6.25	0.64-1.3
Eucalyptus	-	1.3
Gallberry	5.0	1.3
Hackberry, western	5.0	1.3
Gorse*	2.5-6.25	0.64-1.3
Hasardia*	2.5-5.0	0.64-1.3
Hawthorn	2.5-3.75	0.64-1.3
Hazel	2.5	0.64
Hickory*	2.5-6.25	0.64-1.3
Honeysuckle	3.75-5.0	0.64-1.3
Hornbeam, American*	2.5-6.25	0.64-1.3
Huckleberry	5.0	1.3
Kudzu	5.0	1.3
Locust, black*	2.5-5.0	0.64-1.3
Madrone resprouts*	-	1.3
Magnolia, sweetbay	5.0	1.3
Manzanita*	2.5-6.25	0.64-1.3
Maple, red	2.5-5.0	0.64-1.3
Maple, sugar	-	0.64-1.3
Monkey flower*	2.5-5.0	0.64-1.3
Oak; black, white*	2.5-5.0	0.64-1.3
Oak, post	3.75-5.0	0.64-1.3
Oak; northern, pin	2.5-5.0	0.64-1.3
Oak, Scrub*	2.5-5.0	0.64-1.3
Oak; southern red	2.5-3.75	0.64-1.3
Orange, Osage	5.0	1.3
Peppertree, Brazilian (Florida holly)*	2.5-6.25	0.64-1.3
Persimmon*	2.5-6.25	0.64-1.3
Pine	2.5-6.25	0.64-1.3
Poison ivy	5.0-6.25	1.3
Poison oak	5.0-6.25	1.3
Poplar, yellow*	2.5-6.25	0.64-1.3
Redbud, eastern	2.5-6.25	0.64-1.3
Redcedar, eastern	5.0	1.3
Rose, multiflora	2.5	0.64
Russian olive*	2.5-6.25	0.64-1.3
Sage, black	2.5-5.0	0.64
Sage, white*	2.5-5.0	0.64-1.3
Sage brush, California	2.5-5.0	0.64
Salmonberry	2.5	0.64
Saltcedar*	5-6.25	1.3

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Sassafras*	2.5-6.25	0.64-1.3
Sourwood*	2.5-6.25	0.64-1.3
Sumac; laurel, poison, smooth, sugarbush, winged*	2.5-5.0	0.64-1.3
Sweetgum	2.5-3.75	0.64-1.3
Swordfern*	2.5-6.25	0.64-1.3
Tallowtree, Chinese	--	0.64
Tan oak resprouts*	--	1.3
Thimbleberry	2.5	0.64
Tobacco, tree*	2.5-5.0	0.64-1.3
Toyon*	-	1.3
Trumpet creeper	2.5-3.75	0.64-1.3
Vine maple*	2.5-6.25	0.64-1.3
Virginia creeper	2.5-6.25	0.64-1.3
Waxmyrtle, southern*	2.5-6.25	0.64-1.3
Willow	3.75	0.64
Yerbasanta, California*	-	1.3

*Partial control

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10.0 LIMIT OF WARRANTY AND LIABILITY

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

Buyer and all users shall promptly notify this Company of any claims whether based in contract, negligence, strict liability, other tort or otherwise.

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