

2/27/2002

Herbicide by Monsanto

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# Outrider herbicide is a selective herbicide for control of annual and perennial grass and broadleaf weeds in noncrop areas.

**Complete Directions For Use** 

Outrider is a trademark of Monsanto Technology LLC.

EPA Reg. No. 524-500

524-500

## 2002-1

Read the entire label before using this product.

Use only according to label instructions.

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

Read the "LIMIT OF WARRANTY AND LIABILITY" 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. SEE INDIVIDUAL CONTAINER LABEL FOR REPACKAGING LIMITATIONS.

ACTIVE INGREDIENT:

Sulfosulfuron	75.0%
OTHER INGREDIENTS:	<u>25.0%</u>
1	00.0%

This product is protected by U.S. Patent Nos. 5,017,212 and 5,534,482. No license granted under any non U.S. Patent(s).

## PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

Keep out of reach of children.

## CAUTION!

CAUSES EYE IRRITATION.

Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling

	FIRST AID
IF IN EYES	Hold eye open and rinse slowly and gently with water for 15-20 minutes.
	<ul> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.</li> </ul>
	<ul> <li>Call a poison control center or physician for treatment advice.</li> </ul>
<ul> <li>Have the product or going for treat</li> </ul>	t container or label with you when calling a poison control center or physician, ment.
<ul> <li>In case of an em</li> </ul>	ergency involving this product, Call Collect, day or night, (314) 694-4000.
• This product is id	lentified as Outrider Herbicide, EPA Reg. No. 524-500.

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Under the Federal Insecticide, Fundicide, and Rodenticide Act,

as amended, for the pesticide

-500

registered under

BPA Reg. No 524

**Environmental Hazards** 

This chemical demonstrates the properties and characteristics associated with chemicals detected in ground water. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.

This pesticide is highly toxic to non-target plants. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to plants in neighboring areas. Do not contaminate water when disposing of equipment washwaters or rinsate.

The use of any pesticide in a manner that may kill or otherwise harm an endangered species or adversely modify their habitat is a violation of Federal Laws.

## DIRECTIONS FOR USE

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

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

## Storage and Disposal

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

STORAGE: Store under cool, dry conditions (below 120°F). Do not store under moist conditions.

**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.

See individual container label for disposal information.

## APPLICATION EQUIPMENT AND INSTRUCTIONS

#### **Ground Broadcast Equipment**

Apply Outrider®herbicide uniformly with properly calibrated ground equipment in 10 to 50 gallons of water per acre. Select spray volumes that ensure thorough and uniform weed coverage. Use equipment which is capable of continuous agitation. Choose nozzles which provide optimum spray distribution and uniform coverage at the appropriate spray pressure. Avoid streaking, skips, overlaps, and spray drift during applications.

## Hand-Heid and High-Volume Equipment

Hand-held spray guns, backpacks, or other similar sprayers may be used to apply this product. 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.

Do not apply product through any type of irrigation system.

IMPORTANT: Do not allow this product to contact roots or foliage of desirable vegetation, areas where roots of desirable vegetation may extend, or areas where this product may be washed or moved into contact with roots of desirable vegetation.

Desirable plants may be injured if planted into treated areas.

Do not use on food or feed crops.

## Equipment cleaning

Clean application equipment after using this product by thoroughly flushing with water.

## **Injection Systems**

This product may be used in ground injection spray systems. It may be diluted prior to injecting into the spray stream. Do not mix this product with the undiluted concentrate of other products when using injections systems, unless specifically recommended.

## ATTENTION

AVOID DRIFT. Care must be used when applying this product to prevent injury to desirable plants and crops. Do not allow the herbicide solution to mist, drift, or splash onto desirable vegetation or soil areas where sensitive crops will be planted since minute quantities of this product can cause severe damage or destruction to plants 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. Drift control agent additives should be used for ground broadcast applications. When a drift control additive is used, read and carefully observe the precautionary statements and all other information appearing on the additive label.

## **MIXING INSTRUCTIONS**

Thoroughly clean equipment prior to mixing spray solution.

Fill the spray tank to about three-fourths of the desired volume. Add the recommended amount of this product. Complete the filling process while maintaining agitation. Use caution to avoid siphoning back into the carrier source. Use approved anti-back-siphoning devices where required by state or local regulations. Add nonionic surfactant near the end of the filling process where required.

For tank mixtures, add individual formulations to the spray tank in the following sequence: water, water soluble bags, dry flowables, emulsifiable concentrates, drift control additive, water soluble liquids followed by a nonionic surfactant. Tank mixtures of this product with Roundup Pro<sup>®</sup> herbicide do not require addition of surfactant.

## **GENERAL INFORMATION**

Outrider herbicide is a preemergent and postemergent, systemic herbicide for control of many annual and perennial broadleaf and grass weeds on noncrop sites where unimproved bermudagrass, bahiagrass and tall fescue are present. It is formulated as a water dispersible granule (WDG).

## NONCROP SITES

Outrider herbicide may be used for general weed control on noncrop sites including roadsides, utility rights-of-way, airports, fallow areas, ditch banks, dry ditches, dry canals, fencerows, industrial sites, lumberyards, manufacturing sites, petroleum tank farms and pumping installations, railroads, storage areas, utility substations, warehouse areas, and similar industrial and noncrop sites.

## BERMUDAGRASS AND BAHIAGRASS

Outrider herbicide may be used to control or partially control many annual and perennial weeds for effective release of bermudagrass or bahiagrass on roadsides and other labeled noncrop sites.

## **Application Information**

## Ground Broadcast

Apply Outrider herbicide at 0.75 to 2.0 ounces per acre. Do not exceed 2.66 ounces of this product per acre per year. Follow-up applications should be made after suitable re-growth of weeds and no sooner than 30 days after the previous application.

Use the higher recommended rates of this product for control of large established weeds or when weed growth is heavy or dense. Best results are obtained when weeds are in the early stage of growth and are not disturbed by mowing or other factors for 12 days prior to, or 12 days after application.

Addition of a nonionic surfactant at 0.5 percent by volume (2 quarts per 100 gallons of spray solution) is required for postemergence applications unless tank mixed with Roundup Pro herbicide. Use only nonionic surfactants which contain at least 90 percent active ingredient. When this product is applied in a tank mixture with Roundup Pro herbicide, addition of a surfactant is not necessary.

## Hand-Held and High-Volume Equipment

Add 1.0 ounce of Outrider herbicide per 100 gallons of water. Add 2 quarts of a nonionic surfactant per 100 gallons of spray solution. Use only nonionic surfactants containing at least 90 percent active ingredient.

#### **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 directions, precautionary statements and all information on the labels of all products used.

Any recommended rate of this product may be tank mixed with the following products. Refer to these product labels for approved noncrop sites and application rates. Always apply tank mixtures according to the most restrictive label of the products used. Products recommended as tank mixes with Outrider herbicide for bermudagrass or bahiagrass release are restricted to those specified in the "RELEASE OF BERMUDAGRASS OR BAHIAGRASS" section.

BANVEL™ CAMPAIGN<sup>®</sup> DIURON ESCORT™ GARLON™ 3A KARMEX™ DF MSMA OUST™ PLATEAU™ ROUNDUP PRO<sup>®</sup> TELAR™ TRANSLINE™ VANQUISH™ 2,4-D

**NOTE:** Tank mixtures with broadleaf herbicides formulated as amines (including 2,4-D and others) may decrease the effectiveness of Outrider herbicide.

## **RELEASE OF BERMUDAGRASS OR BAHIAGRASS**

#### **Dormant Applications**

This product may be used to control or partially control many winter annual weeds for effective release of dormant bermudagrass or bahiagrass when treated after grass is dormant and prior to spring green-up.

Apply any labeled rate of this product alone or in a tank mixture with 8 to 64 fluid ounces of Roundup Pro herbicide or with 16 to 64 fluid ounces of Campaign herbicide per acre. In dormant bermudagrass only, up to 1 ounce per acre of Escort may be added to Outrider herbicide or tank mixtures of Outrider herbicide and Roundup Pro herbicide to increase the spectrum of broadleaf weeds controlled. Addition of Escort may delay green-up of bermudagrass. DO NOT apply tank mixtures of this product with Escort in highly maintained turfgrass areas.

In the state of Texas, applications of Outrider herbicide applied before September 30 will not delay green-up of bermudagrass the following spring, however some temporary discoloration of desirable spring germinating wildflowers may occur.

#### Actively Growing Bermudagrass Release

This product may be used to control or partially control johnsongrass and other weeds for effective release of actively growing bermudagrass. Use only on well-established bermudagrass. Apply any labeled rate of this product alone or in a tank mixture with 8 to 32 fluid ounces of Roundup Pro herbicide per acre. Use the higher rates of each product to control perennial weeds or annual weeds greater than 6 inches in height.

Up to 0.5 ounce per acre of Oust, up to 1 ounce per acre of Escort, or up to 0.5 ounce per acre of Telar may be added to Outrider herbicide or tank mixtures of Outrider herbicide and Roundup Pro herbicide. DO NOT apply tank mixtures of this product with Oust, Escort or Telar in highly maintained turfgrass areas.

## **Actively Growing Bahiagrass Release**

This product may be used to control or partially control johnsongrass and other weeds for effective release of actively growing bahagrass. Use only on well established bahagrass. Apply any labeled rate of this product alone or in a tank mixture with 4 to 12 ounces of Roundup Pro herbicide per acre. Use the higher rates of each product to control perennial weeds or annual weeds greater than 6 inches in height.

**IMPORTANT:** Established bermudagrass and bahiagrass are tolerant to Outrider herbicide applications. Tank mixtures of other products with Outrider herbicide may increase grass injury.

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Where bermudagrass or bahiagrass are desirable ground cover use tank mixtures only when some temporary injury or discoloration can be tolerated.

## TALL FESCUE

Outrider herbicide may be used to control or partially control johnsongrass and other weeds in tall fescue on roadsides and other labeled noncrop sites.

## **Application Information**

#### **Ground Broadcast**

Apply Outrider herbicide at 0.75 to 1.0 ounce per acre. Do not exceed 1.0 ounce of this product per acre per year.

Use the higher recommended rate for control of large established weeds or when weed growth is heavy or dense. Best results are obtained when weeds are actively growing and are not disturbed by mowing or other factors for 14 days prior to, or 14 days after application.

Addition of a nonionic surfactant at 0.5 percent by volume (2 quarts per 100 gallons of spray solution) is required. Use only nonionic surfactants containing at least 90 percent active ingredient.

#### Hand-Held and High-Volume Equipment

Add 1.0 ounce of Outrider herbicide per 100 gallons of water. Add 2 quarts of a nonionic surfactant per 100 gallons of spray solution. Use only nonionic surfactants containing at least 90 percent active ingredient.

## Timing

Applications should be made to actively growing johnsongrass in early boot to full seadhead stage. Symptom development will be more rapid in less mature johnsongrass.

Use this product only in well-established tall fescue. Use of labeled rates can result in transient growth reduction and discoloration of tall fescue but these cause no long-term detrimental effects.

## WEEDS CONTROLLED

**Barley**, volunteer Hordeum vulgare Bedstraw, catchweed Galium aparine **Bluegrass, roughstalk** Poa tirvialis **Bluegrass**, bulbous Poa bulbosa Brome, downy Bromus tectorum Brome, ripgut Bromus rigidus **Buttercup** Ranunculus arvensis Chamomile, mayweed Anthemus cotula Cheat Bromus secalinus Chess, hairy Bromus commutatus Chickweed, common Stellaria media Horseweed Conyza canadiensis

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Fiddleneck, tarweed Amsinckia lycopsoides Flixweed Descurainia sophia **Johnsongrass** Sorghum halepense Ladysthumb Polygonum persicaria Mustard, tumble Sisymbrium altissimum Mustard, wild Sinapis arvensis Pennycress, field Thlaspi arvense Purple Nutsedge Cyperus rotundus Quackgrass Elytrigia repens Ragweed, common Ambrosia artemisiifolia Shepherd's-purse Capsella bursa-pastoris Sunflower, common Helianthus annuus Tansymustard, pinnate Descurainia pinnata Vetch, sand Vicia acutifolia Yellow Nutsedge Cyperus esculentus

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## 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 pamphlet ("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.

Buyer and all users are responsible for all loss or damage from use or handling which results from conditions beyond the control of this Company, including, but not limited to, incompatibility with products other than those set forth in the Directions, application to or contact with desirable vegetation, unusual weather, weather conditions which are outside the range considered normal at the application site and for the time period when the product is applied, as well as weather conditions which are outside the application ranges set forth in the Directions, application in any manner not explicitly set forth in the Directions, moisture conditions outside the moisture range specified in the Directions, or the presence of products other than those set forth in the Directions in or on the soil, crop or treated vegetation.

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EPA Reg. No. 524-500

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In case of an emergency involving this product, Call Collect, day or night, (314) 694-4000.

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Formulated in the United States Using Active Ingredient Made in Japan.