

# **TURFGRASSES AND GRASSES FOR SEED PRODUCTION - PREPLANT AND TRENOVATION - ANNUAL WEEDS - LOW VOLUME FOLIAR APPLICATION**

## General Information

### GENERAL INFORMATION

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

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

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

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

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

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

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

to the 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 spray mixture off the foliage and a repeat treatment may be required.

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

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

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

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

#### APPLICATION EQUIPMENT AND TECHNIQUES

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

This product may be applied with the following application equipment:

Aerial - Fixed Wing and Helicopter

Broadcast Spray

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

Hand-Held and High-Volume Spray Equipment - Knapsack and backpack sprayers,

pump-up pressure sprayers, handguns, handwands, mistblowers, lances and other hand-held and motorized spray equipment used to direct the spray onto weed foliage.

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

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

## AERIAL EQUIPMENT

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

FOR AERIAL APPLICATION IN CALIFORNIA, refer to the label.

Avoid direct application to any body of water.

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

Coarse sprays are less likely to drift; therefore, do not use nozzles or nozzle configurations which dispense spray as fine spray droplets.

Do not angle nozzles forward into the airstream and do not increase spray volume by increasing nozzle pressure.

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

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

Thoroughly wash aircraft, especially landing gear, after each day of spraying to remove residues of this product accumulated during spraying or from spills.

PROLONGED EXPOSURE OF THIS PRODUCT TO UNCOATED STEEL SURFACES MAY RESULT IN CORROSION AND POSSIBLE FAILURE OF THE PART. LANDING GEAR ARE MOST SUSCEPTIBLE. The maintenance of an organic coating (paint), which meets aerospace specification MIL-C-38413, may be used to prevent corrosion.

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

#### BROADCAST EQUIPMENT

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

#### CONTROLLED DROPLET APPLICATION (CDA)

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

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

For vehicle-mounted CDA equipment apply in a sufficient volume of water to ensure thorough coverage.

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

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

may result.

## HAND-HELD and HIGH-VOLUME EQUIPMENT

### Use Course Sprays Only

Mix this product in clean water and apply to foliage of vegetation to be controlled. For applications made on a spray-to-wet basis,

spray coverage should be uniform and complete. Do spray to the point of runoff. For control of annual weeds listed on the label, apply a 0.5 percent solution of this product to weeds less than 6 inches in height or runner length. Apply prior to seedhead formation in grass or bud formation in broadleaf weeds. For agricultural uses, allow 3 or more days before tillage or mowing.

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

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

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

## SELECTIVE EQUIPMENT

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

### SHIELDED AND HOODED APPLICATORS

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

Use nozzles that provide uniform coverage within the treated area. Keep shields on

shielded sprayers adjusted to protect desirable vegetation. **EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT WITH DESIRABLE VEGETATION.**

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

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

#### WIPER APPLICATORS

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

Equipment must be designed, maintained and operated to prevent the herbicide solution from contacting desirable vegetation.

Operate this equipment at ground speeds no greater than 5 mph. Performance may be improved by reducing speed in areas of heavy weed infestations to ensure adequate wiper saturation. Better results may be obtained if 2 applications are made in opposite directions.

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

Do not use wiper equipment when weeds are wet.

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

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

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

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

When applied as recommended under the conditions described for "WIPER APPLICATORS", this product CONTROLS the listed weeds in the label.

For annual, perennial weeds and woody brush method of application, application rate and recommended spray volume, please refer to the "Application Rates Table" in the label.

Limitations, Restrictions, and Exceptions

TURFGRASSES AND GRASSES FOR SEED PRODUCTION

PREPLANT AND RENOVATION

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

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

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

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

DO NOT DISTURB SOIL OR UNDERGROUND PLANT PARTS BEFORE TREATMENT.

Tillage or renovation techniques such as vertical mowing, coring or slicing should be delayed for 7 days after application to allow proper translocation into underground

plant parts.

## GRASSES FOR SEED PRODUCTION

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

DO NOT feed or graze treated areas within 8 weeks after application.

## ANNUAL WEEDS

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

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

When applied as directed under the conditions described, this product will control the weeds listed when: Water carrier volumes of 3 to 10 gallons per acre for ground applications and 3 to 5 gallons per acre for aerial applications are recommended. (See the "AERIAL APPLICATION" section of the label for approved sites.)

## NOTE

- The addition of 2 percent dry ammonium sulfate by weight or 17 pounds per 100 gallons of water may increase the performance of this product on annual weeds. The improvement in performance may be apparent where environmental stress is a concern. Refer to the "MIXING, ADDITIVES and APPLICATION INSTRUCTIONS" section of the label.



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

Note:

Use these rates to control Barnyardgrass in Alabama, Arkansas, Mississippi, Missouri, Louisiana and Texas for preplant treatments.

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

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

Method

[Broadcast/Foliar Air](#)

[Broadcast/Foliar Ground](#)

[Broadcast/Foliar Air](#)

[Broadcast/Foliar Ground](#)

Rates

[field rates 0](#)

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Restricted Entry Interval

4 hours

Timings

[Preplant](#)

[Postemergence \(Weed\)](#)