

# **TURFGRASS RENOVATION - ANNUAL WEEDS**

## General Information

### GENERAL INFORMATION

#### (HOW THIS PRODUCT WORKS)

**Product Description:** This product is a postemergence, 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 may be applied through most standard sprayers after dissolution 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 1 day, and on most perennial weeds in 2 days. Extremely cool or cloudy weather following treatment may slow activity of this product and delay development of visual symptoms. Visible effects are a quick yellowing of the foliage which advances to complete browning of above-ground growth and deterioration of underground plant parts.

**Mode of Action:** One of the active ingredients in this product inhibits an enzyme found only in plants and microorganisms that is essential to formation of specific amino acids. The second active rapidly disrupts cell integrity of photosynthetically active tissues in the contacted foliage.

**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 foliage and a repeat application may be required for adequate control.

**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.

**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:** For noncrop uses, the combined total of all treatments must not exceed 10 quarts 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 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.

#### 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 antifoam or defoaming agent.

#### 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 Razor Burn 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.

When tank mixing Razor Burn with other products, 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 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.

#### MIXING FOR HAND-HELD SPRAYERS

Prepare the desired volume of spray solution by adding the desired amount of this product as shown in the following table to a clean, empty sprayer. Add the appropriate amount of water and stir or agitate to ensure dissolution of Razor Burn herbicide: 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.

#### 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. Certain blue dyes are not stable in the spray solution in the presence of this product. A jar test to determine if the desired blue dye is stable is recommended. If stability is a problem consider switching to an alternate color dye.

#### APPLICATION EQUIPMENT AND TECHNIQUES

##### SPRAY DRIFT MANAGEMENT

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

Avoid 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/is responsible for considering all these factors when making decisions.

Do not apply this product by air.

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

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 other areas on which treatment was not intended.

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

#### **GROUND BROADCAST EQUIPMENT**

Use the recommended rates of this product in 10 to 80 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.

#### **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 2 fluid ounces of this product per 1 gallon of spray solution. See table in "Mixing for Hand-Held Sprayers", for larger mixing volumes.

For best results, use 2.5 fluid ounces of this product per 1 gallon of spray solution on harder-to-control perennials, such as Bermudagrass, dock, field bindweed, hemp dogbane, milkweed and Canada thistle. See table in "Mixing for Hand-Held Sprayers", for larger mixing volumes.

For low-volume directed spray applications, use 6.7 to 13.3 fluid ounces of this product per 1 gallon of spray solution for control or partial control of brush weeds. See table in "Mixing for Hand-Held Sprayers", for larger mixing volumes. 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 brush and tree seedlings when foliage is thick and dense, or where there are multiple sprouts.

#### Limitations, Restrictions, and Exceptions

#### TURFGRASS RENOVATION (Except for Commercial Sod Farms.0

This product controls most existing vegetation prior to renovating turfgrass areas. This product is not for use on turf being grown for sale or other commercial use as sod, or for commercial seed production, or for research purposes. 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. Do not use this product for renovation of Bermudagrass or kikuyugrass sods. 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.

Do not feed or graze treated turfgrass or feed treated thatch to livestock.

#### 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.

## ANNUAL WEEDS

Use 7.5 quarts per acre of this product as a broadcast spray to control annual weeds. For spray-to-wet applications, apply 2.0 fluid ounces of this product per 1 gallon of spray solution.

When using field broadcast equipment (boom sprayers using flat-fan nozzles) the following species will be controlled or partially controlled using 3.75 quarts of this product per acre: Barley, Barnyardgrass, Bittercress, Black nightshade, Bluegrass, annual, Bluegrass bulbous, Brome, downy, Brome, Japanese, Browntop panicum, Buttercup, Carolina foxtail, Cheatgrass, Chervil, Chickweed, Cocklebur, Corn, Corn speedwell, Crabgrass, Dwarf dandelion, Eastern manna grass, Eclipta, Fall panicum, Falsedandelion, Falseflax, smallseed, Field pennycress, Fleabane, annual, Fleabane, hairy, (*Coryza bonariensis*), Fleabane, rough, Foxtail, Goatgrass jointed, Grain sorghum (milo), Groundsel, common, Itchgrass, Lambsquarters, Little barley, London rocket, Medusahead, Mustard, blue, Mustard, tansy, Mustard, tumble, Mustard, wild, Pigweed, Plains/Tickseed coreopsis, Prickly lettuce, Ragweed, common, Rye, Ryegrass, Sandbur, field, Shattercane, Shepherdspurse, Signalgrass, broadleaf, Smartweed, lady thumb, Smartweed, Pennsylvania, Speedwell, purslane, Sprangletop, Spurge, prostrate, Spurge, spotted, Spurry, umbrella, Stickgrass, Sunflower, Texas panicum, Virginia pepperweed, Wheat, Wild oats, Witchgrass, Woolly cupgrass, Yellow rocket.

Applications must be made using 10 to 80 gallons of carrier volume per acre. Use nozzles that ensure thorough coverage of foliage and treat when weeds are in an early growth stage.

### Method

[Broadcast/Foliar Ground](#)

[Spot treatment](#)

[Hand-Held Spray](#)

[Spray-to-wet](#)

### Rates

[field\\_rates 0](#)

[field\\_rates 1](#)

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Timings

[Postemergence \(Weed\)](#)