

ROUNDUP READY ALFALFA (ESTABLISHED STANDS) - ANNUAL WEEDS

General Information

PRODUCT 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 liquid. It may be applied through most standard industrial or field-type sprayers after dilution and thorough mixing with water or other carriers 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.

Stage of Weeds: Annual weeds are easiest to control when they are small. Best control of most perennial weeds is obtained when treatment is made at late growth stages approaching maturity. Refer to the "ANNUAL WEEDS", "PERENNIAL WEEDS" and "WOODY BRUSH AND TREES RATE TABLES" for rates for specific weeds.

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

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 specified stage for treatment.

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.

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.

Biological Degradation: Degradation of this product is primarily a biological process carried out by soil microbes.

Annual Maximum Use Rate: Except as otherwise specified in a crop section of the label, the combined total of all treatments must not exceed 8 quarts of this product per acre per year. For applications in non-crop sites or in tree, vine, or shrub crops, the combined total of all treatments must not exceed 10.6 quarts of this product per acre per year. The maximum use rates stated throughout this product's labeling apply to this product combined with the use of all other herbicides containing glyphosate or sulfosate as the active ingredient, whether applied as mixtures or separately. Calculate the application rates and ensure that the total use of this and other glyphosate or sulfosate containing products does not exceed stated maximum use rate.

NOTE: Use of this product in any manner not consistent with the label may result in injury to persons, animals or crops, or other unintended consequences.

WEED RESISTANCE MANAGEMENT

Information on Weed Resistance - GROUP 9 HERBICIDE Glyphosate, the active ingredient in this product, is a Group 9 herbicide. Target site resistance to Group 9 herbicides is rare. Although rare in occurrence, any weed population may contain plants naturally resistant to Group 9 herbicides. Weed species resistant to Group 9 herbicides may be effectively managed utilizing another herbicide from a different Group or using other cultural practices. Weed resistance management directions for Group 9 herbicides are: * Ensure optimum weed control by making applications at the right time (correct weed size) and utilizing the label rate for the most difficult to

control weed in your field.* Base decisions on local needs and use the tool(s) necessary to obtain optimum weed control and minimize weed escapes.* Avoid tank-mixtures that reduce this product's efficacy (through antagonism) or which encourage rates of this product below the label directions.* Scout treated weed populations for escapes 2-4 weeks after application.* Report any incidence of repeated nonperformance of this product on a particular weed to the local retailer, county extension agent, or Tenkoz representative.

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

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

Ground Broadcast Spray—Boom or boomless systems, pull-type sprayer, floaters, pick-up sprayers, spray coupes and other ground broadcast equipment.

Hand-Held or 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 and hooded sprayers, wiper applicators and sponge bars.

Injection Systems—Aerial or ground injection sprayers.

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

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

Aerial Equipment

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

Use the specified rates of this herbicide in 3 to 15 gallons of water per acre unless otherwise directed on the label. Unless otherwise specified, do not exceed 1 quart per acre. Refer to the individual use area sections of the label for specified volumes, application rates, and further instructions.

State Information on Aerial Applications

Aerial Applications in ARKANSAS:

AVOID DRIFT. DO NOT APPLY INTO STILL AIR WHERE THERE IS A TEMPERATURE INVERSION LAYER LOW ENOUGH FOR FINE SPRAY PARTICLES TO BECOME SUSPENDED AND MOVE OUTSIDE THE TARGET AREA WHEN THE INVERSION LAYER MOVES. DO NOT APPLY WHEN WINDS ARE GUSTY OR UNDER ANY OTHER CONDITION THAT FAVORS DRIFT. DRIFT IS LIKELY TO CAUSE DAMAGE TO ANY VEGETATION CONTACTED. TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION, APPROPRIATE BUFFER ZONES MUST BE MAINTAINED.

Use the recommended rate of this product in 3 to 15 gallons of water per acre.

Use sufficient carrier volume and appropriate equipment set-up to form droplets large enough to avoid drift potential. Coarse droplets in the 300 to 500 (VMD) micron range are recommended.

Applications should typically be made with the nozzle release point at 8 to 15 feet above the top of the target plants unless a greater height is required for aircraft safety.

The distance of the outermost nozzles on the boom must not exceed 75 percent of the length of the wingspan or rotor. In many cases, reducing this distance to 65 percent of the length of the wingspan or rotor will improve drift control without affecting the swath width.

Nozzles must always discharge backward parallel with the air stream and never discharge downwards more than 45 degrees on fixed wing aircraft or forward of the prevailing airflow on rotary winged aircraft. Avoid the use of nozzles with wide-angle discharge.

Do not apply this product when winds are in excess of 10 miles per hour.

Do not apply when there is a low-level inversion where fine spray particles could be suspended in still air and move outside the target area when the inversion layer moves. These conditions may occur when wind speeds are less than 2 miles per hour. Use the following guidelines

when applications are made near crops or other desirable vegetation:

1. Do not apply within 100 feet of any desirable vegetation or crops.
2. If wind up to 5 miles per hour is blowing toward desirable vegetation or crops, do not apply within 500 feet upwind of the desirable vegetation or crops.
3. Winds blowing from 5 to 10 miles per hour toward desirable vegetation or crops will likely require buffer zones in excess of 500 feet.

See label for additional application information in the States of Arkansas and California.

Refer to the label for Aerial Application in the State of Arkansas and for Glyphosate Weed Resistance Management.

Limitations, Restrictions, and Exceptions

ROUNDUP READY ALFALFA

GENERAL USE INSTRUCTIONS: Refer to the following table for the maximum application rates of this product.

Annual Maximum Application Rates

Combined total per year for all applications, including Preplant during year of establishment 8 quarts per acre

Combined total per year for In-crop applications for newly established and

established stands 6 quarts per acre

GENERAL PRECAUTIONS AND RESTRICTIONS: See the “ROUNDUP READY CROPS” section of the label for general precautionary instructions for use of this product in Roundup Ready crops. See the “GENERAL INFORMATION” section of the label for more information on “Annual Maximum Application Rates”.

ESTABLISHED STANDS

Application Rates

In-crop applications, per cutting, up to 5 days before cutting Up to 2 quarts per acre

PRECAUTIONS, RESTRICTIONS: Where Roundup Ready alfalfa is grown with a companion or cover crop, or is overseeded with a second species, in-crop (over-the-top) applications of this product will eliminate the non-glyphosate tolerant species. Any single in-crop application of this product should not exceed 2 quarts per acre. Sequential applications of this product should be at least 7 days apart. The combined total per year for all in-crop applications in both newly established (seeding year) and established stands (non-seeding year) must not exceed 6 quarts per acre.

Remove domestic livestock before application. Wait a minimum of 5 days after application before grazing, cutting and feeding of forage and hay.

ANNUAL WEEDS RATE SECTION

When water carrier volumes are between 16 and 40 gallons per acre for ground applications and between 6 and 15 gallons per acre for aerial applications, the following use rates will control the annual weeds listed in the table below:

- 1 quart per acre—grass and broadleaf annual weeds less than 6 inches in height or circumference and vines less than 3 inches in length.
- 3 pints per acre—grass and broadleaf annual weeds 6 to 12 inches in height or circumference and vines 3 to 6 inches in length.
- 2 quarts per acre—grass and broadleaf annual weeds greater than 12 inches in height or circumference and vines greater than 6 inches in length.

WHEN WATER CARRIER VOLUMES ARE BETWEEN 3 AND 15 GALLONS PER ACRE FOR

GROUND APPLICATIONS AND BETWEEN 3 AND 5 GALLONS PER ACRE FOR AERIAL APPLICATIONS, USE THE RATES SPECIFIED FOR INDIVIDUAL WEEDS AS FOLLOWS IN THE “ANNUAL WEEDS RATE TABLE (Alphabetically by Species)”.

Apply to actively growing annual weeds. Annual weeds are generally easiest to control when they are small.

Older, mature (hardened) annual weed species may require higher rates even if they meet the size requirements.

Maximum size refers to the maximum plant height, length of runners for vines, or circumference of rosette plants in inches.

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.

This product may be used up to 64 fluid ounces per acre where heavy weed densities exist.

Annual Weeds—Hand-Held or Backpack Equipment

For control of weeds listed in the “ANNUAL WEEDS RATE TABLE” above, 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 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 that 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 and trees.

Method

[Broadcast/Foliar Air](#)

[Broadcast/Foliar Ground](#)

[Hand-Held Spray](#)

Rates

[field_rates 0](#)

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Restricted Entry Interval

4 hours

Timings

[Postemergence \(Weed\)](#)