524-494 5/20/98

#### SUPPLEMENTAL LABELING

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READ THE ENTIRE LABEL FOR ROUNDUP<sup>®</sup> D-PAK HERBICIDE BEFORE PROCEEDING WITH THE USE DIRECTIONS CONTAINED IN THIS SUPPLEMENTAL LABELING. "Label" as used in this supplemental labeling refers to the label booklet for Roundup D-PAK, container labels and this supplement.

# Roundup D-PAK Herbicide

EPA Reg. No. 524-494 Roundup Ready and Roundup are registered trademarks of Monsanto Company.

# FOR POSTEMERGENCE APPLICATIONS TO SOYBEANS WITH THE ROUNDUP READY ® GENE

# Keep out of reach of children. CAUTION!

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

#### DIRECTIONS FOR USE

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

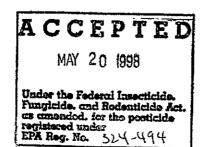
This label must be in the possession of the user at the time of application.

See "GENERAL INFORMATION" and "MIXING, ADDITIVIES AND APPLICATION INSTRUCTIONS" sections of the label booklet for Roundup® D-PAK herbicide for essential product performance information.

#### **General Information**

MONSANTO COMPANY RECOMMENDS USE OF THIS PRODUCT FOR POSTEMERGENCE APPLICATION ONLY ON SOYBEAN VARIETIES DESIGNATED AS CONTAINING THE ROUNDUP READY® GENE.

- Applying this product to soybean varieties which are not designated as Roundup Ready<sup>®</sup> will result in severe crop injury and yield loss. Avoid contact with foliage, green stems, or fruit of crops, or any desirable plants which do not contain the Roundup Ready gene, since severe injury or destruction will result.
- Roundup Ready varieties must be purchased from an authorized seed supplier. Crop safety and weed control performance are not warranted by Monsanto when this product is used in conjunction with "brown bag" or "bin run" soybean seed saved from previous year's production and replanted.
- The Roundup Ready designation indicates that the soybean contains a patented gene which provides tolerance to Monsanto's Roundup brand herbicides. Information on Roundup Ready soybeans may be obtained from your seed supplier or Monsanto representative.



#### **Application Instructions**

This product may be applied postemergence to Roundup Ready soybeans from the cracking stage throughout flowering. Allow a minimum of 14 days between application and harvest of soybeans.

#### Maximum Allowable Yearly Rates

- Preplant: Maximum amount of this product which can be applied prior to crop emergence is 3 quarts/A.
- In-crop: Maximum combined total of single or multiple in-crop applications from cracking throughout the flowering stage is 60 fl. oz./A. The maximum rate for any single in-crop application is 40 fl. oz./A. The maximum combined total of this product which can be applied during flowering is 40 fl. oz./A.
- Preharvest: Maximum amount of this product that can be applied after loss of green color in soybean pods until 14 days before harvest is 20 fl. oz./A. The combined total of in-crop and preharvest Roundup D-PAK herbicide applications may not exceed 60 fl.oz./A.
- Cropping Season: Combined total per year for all applications may not exceed 5 quarts/A.

When applied as directed, this product will control labeled annual grasses and broadleaf weeds in Roundup Ready soybeans. Many perennial grasses and broadleaf weeds will be controlled or suppressed with one or more applications of this product.

There are no rotational crop restrictions following applications of this product.

For ground applications: Use the recommended rates of this product in 5 to 20 gallons of spray solution per acre as a broadcast spray. Carefully select proper nozzle and spray pressure to avoid spraying a fine mist. For best results with ground application equipment, use nozzles which provide a flat fan pattern. Check for even distribution of spray droplets.

For aerial applications: Use the recommended rates of this product in 3 to 15 gallons of spray solution per acre. Do not exceed 1 quart of this product per acre. DO NOT APPLY DURING LOW LEVEL INVERSION CONDITIONS, WHEN WINDS ARE GUSTY OR UNDER ANY OTHER CONDITIONS WHICH FAVOR DRIFT. DRIFT MAY CAUSE DAMAGE TO ANY VEGETATION CONTACTED TO WHICH TREATMENT IS NOT INTENDED. MAINTAIN APPROPRIATE BUFFER ZONES TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION.,

#### ANNUAL WEED RATE TABLES

The following rate recommendations will provide control of labeled grasses and broadleaf weeds in conventional and no-till soybean production systems. Refer to the label booklet for rate recommendations for specific annual weeds.

Monsanto will not warrant crop safety or weed control when Roundup Ready soybeans are treated with herbicides not specified on this supplemental label. Because of the potential for; 1) crop injury, 2) poor weed control from antagonism, and/or 3) rotational crop restrictions, herbicides not specified on this supplemental label should not be used, whether applied preemergence or applied postemergence as a tank mixture with Roundup D-PAK.

This product may be used up to 40 fluid ounces per acre in any single application for control of annual weeds, where heavy weed densities exist. The maximum combined total of this product which can be applied during flowering is 40 fl.oz./A.

**NOTE:** The following recommendations are based on a clean start at planting by using a burn down application or tillage to control existing weeds before crop emergence. In no-till and stale seedbed systems, a preplant burn-down treatment of 10-40 fluid ounces per acre of this product can be used to control existing weeds prior to crop emergence.

#### MIDWEST/ MID-ATLANTIC RECOMMENDATIONS

Narrow row or drilled soybeans: A single in-crop application of this product will provide effective control of labeled weeds. For best results, an initial application of 20 fluid ounces per acre (fl oz/A), on 4-8" weeds is recommended. Weeds will generally be 4-8" tall 3 to 5 weeks after planting. If the initial application is delayed and weeds are 8-18" tall, use 30 fl oz/A for best results.

Under adverse growing conditions such as drought, hail, wind damage or a poor soybean stand that slows or delays canopy closure, a sequential application of this product at 10 to 20 fluid ounces per acre may be necessary to control late flushes of weeds. The combined total application in-crop must not exceed 60 fluid ounces per acre.

Wide row soybeans: An in-crop application of this product will provide effective control of the initial stand of labeled weeds. For best results, an initial application of 20 fluid ounces per acre (fl oz/A), on 4-8" weeds is recommended. Weeds will generally be 4-8" tall 3 to 5 weeks after planting. If new flushes of weeds occur, they can be controlled by sequential applications of this product.

	Initial Treat	ment_	,,,,
Weed Height	Rate		1 1 1
(inches)	(fl oz/A)		,,,,
4-8	20	7 1 7 7 7 4 2	, ,
8-18	30	2 1 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	* * * * *
		> 1 > 1 > 3 > 3 > 1 > 1 > 1 > 1 > 1 > 1	***
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			, , , ,

### Sequential Application (if needed)\*

Weed Height	Rate
(inches)	(fl oz/A)
1-3	10
3-6	15
6-12	20

\*Combined total application in-crop not to exceed 60 fluid ounces per acre.

Giant ragweed: Apply 20 fl oz/A when the weed is 8-12" tall to avoid the need for sequential application.

Groundcherry, ladysthumb, Pennsylvania smartweed and morningglory: Apply 20 fl oz/A to weeds 3-6" tall.

Some weeds, such as black nightshade, woolly cupgrass, shattercane, wild proso millet, burcumber, and giant ragweed, with multiple germination times may require a sequential application of this product. Suppressed or stunted weeds may also require sequential applications. Sequential applications should be made after some regrowth has occurred. Use a minimum of 10 fluid ounces of this product per acre for sequential applications. The combined total of all in-crop postemergence treatments must not exceed 60 fluid ounces per acre.

#### SOUTHEAST RECOMMENDATIONS

Narrow row, drilled, or wide-row soybeans: An in-crop application of this product will provide effective control of the initial stand of labeled weeds. For best results, an initial application of 20 fluid ounces per acre (fl oz/A), on 3-6" weeds is recommended. Weeds will generally be 3-6" tall 2 to 3 weeks after planting.

Weed Height	Rate ( <u>fl oz/A)</u>	
(inches)		
3-6	20	
6-12	30.	

Under adverse growing conditions such as drought, hail, wind damage or a poor soybean stand that slows or delays canopy closure, a sequential application of this product at 10 to 20 fluid ounces per acre may be necessary to control late flushes of weeds.

	Sequential Application	ation (if needed)*
Weed Height	Rate	•
(inches)	(fl oz/A)	
2-3	10	
3-6	15	
6-12	20	

\*Combined total application in-crop not to exceed 60 fluid ounces per acre.

Florida pusley, hemp sesbania and spurred anoda: Apply 20 fl oz/A to weeds' 234' for the initial application. Apply 20 oz/A when these weeds are 3-6" tall if a sequential application is necessary.

Morningglory, black nightshade, groundcherry, and Pennsylvania smartweed: Apply 15 floz/A on 1-3" weeds, 20 floz/A on 3-6" weeds, or 30 floz/A on 6-12" weeds for the initial application.

Some weeds, such as black nightshade, broadleaf signalgrass, Texas panicum, burcumber, and sicklepod, with multiple germination times may require a sequential application of this product. Suppressed or stunted weeds may also require sequential applications. Sequential applications should be made after some regrowth has occurred. Use a minimum of 10 fluid ounces of this product per acre for sequential applications. The combined total of all in-crop postemergence treatments must not exceed 60 fluid ounces per acre.

#### **DELTA/MID-SOUTH RECOMMENDATIONS**

Narrow row, drilled, or wide row soybeans: An in-crop application of this product will provide effective control of the initial stand of labeled weeds. A sequential application will be required to control new flushes of weeds. For best results, an initial application of 20 fluid ounces per acre (fl oz/A), on 2-4" weeds is recommended. Weeds will generally be 2-4" tall 2 to 3 weeks after planting.

	Initial Treatment
Weed Height	Rate
(inches)	(fl oz/A)
2-4	20
5-12	30
	Sequential Application*
Weed Height	Rate
(inches)	(fl oz/A)
2.2	1.0

W cca Hcight	Nate
(inches)	(fl oz/A)
2-3	10
3-6	15
6-12	20

<sup>\*</sup>Combined total application in-crop not to exceed 60 fluid ounces per acre.

Hemp sesbania and spurred anoda: Apply a sequential treatment of 20 fl oz/A on 3-6"weeds if necessary

Some weeds, such as black nightshade, broadleaf signalgrass, Texas panicum, burcumber, and sicklepod, with multiple germination times may require a sequential application of this product. Suppressed or stunted weeds may also require sequential applications. Sequential applications should be made after some regrowth has occurred. Use a minimum of 10 fluid ounces of this product per acre for sequential applications. The combined total of all in-crop postemergence treatments must not exceed 60 fluid ounces per acre.

## PERENNIAL WEEDS RATE RECOMMENDATIONS '';'';

A 20 to 64 fluid ounces per acre rate (single or multiple applications) of this product will control or suppress perennial weeds such as: bermudagrass, Canada, this tle, common

milkweed, field bindweed, hemp dogbane, horsenettle, marestail (horseweed), nutsedge, quackgrass, rhizome johnsongrass, redvine, trumpetcreeper, swamp smartweed, and wirestem muhly.

For best results, allow perennial weed species to achieve at least 6" of growth before spraying with Roundup D-PAK. For additional information on perennial weeds, see the "PERENNIAL WEED RATE TABLE" of the label booklet for Roundup D-PAK. For some perennial species, repeat application may be required to eliminate crop competition throughout the growing season.

NOTE: This product requires use of a nonionic surfactant. When using this product, mix 2 or more quarts of a nonionic surfactant per 100 gallons of spray solution. The surfactant should contain at least 70 percent active ingredient.

The addition of certain surfactants to this product may result in some crop response including leaf necrosis, leaf chlorosis or leaf speckling due to the surfactant added to the spray mixture. Read and carefully observe cautionary statements and other information appearing on the surfactant label.

Read the "Limit of Warranty and Liability" in the label booklet for Roundup D-PAK herbicide before using. These terms apply to this supplemental labeling and if these terms are not acceptable, return the product unopened at once.

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4/17/98

This supplemental label will expire February 1, 1999