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**SUPPLEMENTAL LABELING**

READ THE ENTIRE LABEL FOR ROUNDUP® ULTRA 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 Ultra, container labels and this supplement.

**ACCEPTED**

MAR 2 1998

Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 524-475

**Roundup Ultra Herbicide**

EPA Reg. No. 524-475

**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.

Roundup® and Roundup Ready® Gene are registered trademarks of Monsanto Company.

Roundup Ready™ is a trademark of Monsanto Company.

**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 "APPLICATION INSTRUCTIONS" sections of the label booklet for Roundup® Ultra herbicide for essential product performance information.

**General Information**

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

- Applying this product to soybean varieties which are not designated as Roundup Ready™ 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.

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**Application Instructions**

This product may be applied postemergence to Roundup Ready soybeans from the cracking stage throughout the full-flowering-stage.  
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 5 quarts/A.
- **In-crop:** Maximum combined total of ~~single or multiple~~ in-crop applications from cracking throughout to flowering is 23 quarts/A. The maximum rate for any single in-crop application is 2 quarts/A. The maximum combined total of this product which can be applied during flowering is 2 quarts/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 1 quart/A. The combined total of in-crop and preharvest Roundup Ultra applications may not exceed 3 quarts/A.
- **Cropping Season:** Combined total per year for all applications may not exceed 8 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.  
~~APPROPRIATE BUFFER ZONES MUST BE MAINTAINED.~~

AERIAL APPLICATIONS ON ROUNDUP READY SOYBEANS, MAY BE MADE ONLY IN THE FOLLOWING STATES: ALABAMA, ARKANSAS, FLORIDA, GEORGIA, KANSAS, LOUISIANA, MISSISSIPPI, MISSOURI (BOOT-HEEL ONLY), NORTH CAROLINA, OKLAHOMA, SOUTH CAROLINA, TENNESSEE AND TEXAS.

**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.

~~Tank mixtures with other herbicides are not recommended due to potential for crop injury and/or weed antagonism and to rotational crop restrictions of the tank mix partner.~~

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 Ultra.

This product may be used up to 64 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 64 fluid ounces per acre.

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, always burn down existing weeds before soybeans emerge. Apply a preplant burn-down treatment of 16-64 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 32 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 48 fl oz/A for best results.

<u>Weed Height</u> <u>(inches)</u>	<u>Rate</u> <u>(fl oz/A)</u>
3-6	24
6-12	32
12-18	48

Under adverse growing conditions such as drought, hail, wind damage or a poor soy-bean stand that slows or delays canopy closure, a sequential application of this product at 16 to 32 fluid ounces per acre may be necessary to control late flushes of weeds. The combined total application in-crop must not exceed 64 fluid ounces per acre.

Wide row soybeans: An single-in-crop application of this product will provide effective control of the initial stand of labeled weeds. For best results, an initial application of 32 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 Treatment**

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Weed Height (inches)	Rate (fl oz/A)
3-6	24
<u>-6-12</u> 8	<u>32</u>
<u>12-18</u> 18	48

Sequential Application (if needed)\*

Weed Height (inches)	Rate (fl oz/A)
1-3	16
3-6	24
6-12	32

\*Combined total application in-crop not to exceed 64-96 fluid ounces per acre.

For morningglory, black nightshade, groundcherry, and Pennsylvania smartweed apply:

Weed Height (inches)	Rate (fl oz/A)
1-3	24
3-6	32
6-12	48

Giant ragweed: Apply 32 fl oz/A when the weed is 8-12" tall to avoid the need for sequential application.

Groundcherry, ladysthumb, Pennsylvania smartweed and morningglory: Apply 32 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 16 fluid ounces of this product per acre for sequential applications. The combined total of all in-crop postemergence treatments must not exceed 64-96 fluid ounces per acre.

**MID-ATLANTIC/SOUTHEAST RECOMMENDATIONS**

Narrow row, or drilled, or wide-row soybeans: An single-in-crop application of this product will provide effective control of the initial stand of labeled weeds. For best results, an initial application of 32 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 (inches)	Rate (fl oz/A)
3-6	24
<u>-6-12</u> 6	<u>32</u>
<u>12-18</u> 12	48

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 16 to 32 fluid ounces per acre may be necessary to control late flushes of weeds.

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~~Wide row soybeans: A single in-crop application of this product will provide effective control of initial stand of labeled weeds. If new flushes of weeds occur, they can be controlled by sequential applications of this product.~~

Initial Treatment

<u>Weed Height</u> <u>(inches)</u>	<u>Rate</u> <u>(fl oz/A)</u>
3-6	24
6-12	32
12-18	48

Sequential Application (if needed)\*

<u>Weed Height</u> <u>(inches)</u>	<u>Rate</u> <u>(fl oz/A)</u>
1-2-3	16
3-6	24
6-12	32

\*Combined total application in-crop not to exceed 64.96 fluid ounces per acre.

Florida pusley, Hemp sesbania and spurred anoda: Apply 24 fl oz/A at 0-2" tall; 32 fl oz/A at 2-4" to weeds 2-4" for the initial application. Apply 32 oz/A when these weeds are 3-6" tall if a sequential application is necessary; 40 fl oz/A at 4-6" tall; 48 fl oz/A at 6-8" tall.

For Morningglory, black nightshade, groundcherry, and Pennsylvania smartweed: Apply 24 fl oz/A on 1-3" weeds, 32 fl oz/A on 3-6" weeds, or 48 fl oz/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 16 fluid ounces of this product per acre for sequential applications. The combined total of all in-crop postemergence treatments must not exceed 64-96 fluid ounces per acre.

### DELTA/MID-SOUTH RECOMMENDATIONS

Narrow row, or 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 32 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.

Wide row soybeans: An in-crop application of this product will provide effective control of initial stand of labeled weeds. A sequential application will be required to control new flushes of weeds.

<u>Initial Treatment</u>	
Weed Height (inches)	Rate (fl oz/A)
1-3	24
3-6-4	32
6-12-12	48

<u>Sequential Application*</u>	
Weed Height (inches)	Rate (fl oz/A)
1-2-3	16
3-6	24
6-12	32

\*Combined total application in-crop not to exceed 64-96 fluid ounces per acre.

Hemp sesbania and spurred anoda: Apply a sequential treatment of 24 fl oz/A at 0-2" tall; 32 fl oz/A at 2-4" 3-6" tall weeds if necessary; 40 fl oz/A at 4-6" tall; 48 fl oz/A at 6-8" tall.

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 16 fluid ounces of this product per acre for sequential applications. The combined total of all in-crop postemergence treatments must not exceed 96 fluid ounces per acre.

**PERENNIAL WEEDS RATE RECOMMENDATIONS**

A 32 to 64 fluid ounces per acre rate (single or multiple applications) of this product will control or suppress perennial weeds such as: bermudagrass, Canada thistle, 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 Ultra. For additional information on perennial weeds, see the "PERENNIAL WEED RATE TABLE" of the label booklet for Roundup Ultra. For some perennial species, repeat application may be required to eliminate crop competition throughout the growing season.

**Read the "Limit of Warranty and Liability" in the label booklet for Roundup Ultra 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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MONSANTO COMPANY  
ST. LOUIS, MISSOURI 63167

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This supplemental label will expire February 1, 1999

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# SUPPLEMENTAL LABELING

READ THE ENTIRE LABEL FOR ROUNDUP® ULTRA 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® Ultra and this supplement.

**ACCEPTED**

MAR 2 1998

Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under Reg. No. 524-475

ROUNDUP® ULTRA  
Herbicide by Monsanto

EPA Reg. No. 524-475

## FOR COTTON WITH THE ROUNDUP READY® GENE IN-CROP APPLICATIONS

Keep out of reach of children  
**CAUTION!**

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

Roundup® and Roundup Ready® are registered trademarks of Monsanto Company.

### 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.

### General Information

WARNING: ~~MONSANTO THESE RECOMMENDATIONS THIS PRODUCT REFER ONLY~~ FOR USE ONLY OVER-THE-TOP OF OR DIRECTED ONTO IMPROVED COTTON VARIETIES THAT ARE DESIGNATED AS COTTON WITH THE ROUNDUP READY® GENE. SEVERE INJURY OR DEATH OF COTTON WILL RESULT IF ANY COTTON VARIETIES NOT LAWFULLY PROPERLY DESIGNATED AS HAVING THE ROUNDUP READY® GENE ARE SPRAYED WITH THIS PRODUCT. AVOID CONTACT OF HERBICIDE WITH FOLIAGE, GREEN STEMS, OR FRUIT OF CROPS, OR ANY DESIRABLE PLANTS AND TREES, OTHER THAN CROPS WITH THE ROUNDUP READY® GENE, SINCE SEVERE INJURY OR DESTRUCTION WILL RESULT.

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ROUNDUP READY™ COTTON VARIETIES MUST BE PURCHASED FROM AN AUTHORIZED LICENSED SEED SUPPLIER. THE DESIGNATION, "ROUNDUP READY", INDICATES THE COTTON VARIETY CONTAINS A PATENTED PROPRIETARY TRAIT. IT IS UNLAWFUL TO SELL OR PLANT SAVED SEED.

DO NOT USE THIS PRODUCT ON ANY ROUNDUP READY COTTON EXCEPT FOR THOSE ORIGINALLY PURCHASED FROM AN AUTHORIZED LICENSED SEED SUPPLIER.

COTTON WITH THE ROUNDUP READY® GENE MAY ONLY BE USED FOR PLANTING A COMMERCIAL CROP IN A SINGLE SEASON. SEED MAY NOT BE SAVED FOR REPLANTING AND SAVED SEED MAY NOT BE SUPPLIED TO OTHERS FOR REPLANTING. MONSANTO DOES NOT WARRANT THE SAFETY OR PERFORMANCE OF THIS PRODUCT WHEN USED ON "BROWN BAG" OR FARMER- SAVED SEED.

**Application Instructions**

This product will control many troublesome weeds with over-the-top, post-directed, hooded sprayer, or preharvest applications in Roundup Ready cotton. Allow a minimum of 7 days between application and cotton harvest.

Maximum Allowable Yearly Rates

- |  |            |
|--|------------|
| 1. Combined total per year for all applications      | 8 quarts/A |
| 2. Preplant, Preemergence applications               | 5 quarts/A |
| 3. Total in-crop applications from cracking to layby | 4 quarts/A |
| 4. Maximum preharvest application rate               | 2 quarts/A |

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

For aerial applications, apply this product in 3 to 15 gallons of water per acre.

DO NOT EXCEED A MAXIMUM RATE OF 1 QUART PER ACRE OF THIS PRODUCT WHEN MAKING APPLICATIONS BY AIR. AVOID DRIFT. EXTREME CARE MUST BE USED WHEN APPLYING THIS PRODUCT TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS WHICH DO NOT CONTAIN THE ROUNDUP READY® GENE. 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. To prevent injury to adjacent desirable vegetation, appropriate buffer zones must be maintained.

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

Sprayer Preparation: It is important that sprayer and mixing equipment be clean and free of pesticide residue before making applications of this product to Roundup Ready cotton. Follow the cleaning procedures specified on the label of the product(s) previously used. Cotton is very sensitive to many herbicides at extremely low concentrations and care should be taken to thoroughly clean all equipment prior to use.

In addition to preplant and preemergence uses listed in the Roundup® Ultra label booklet, the following applications can be made:

**Over-the-top applications:** This product may be applied by aerial or ground application equipment postemergence to Roundup Ready cotton from the ground cracking stage until the four leaf (node) stage of development (until the fifth true leaf reaches the size of a quarter). DO NOT APPLY OVER THE TOP OF COTTON WITH THE ROUNDUP READY™ GENE AFTER THE FOUR (4) LEAF STAGE OF COTTON DEVELOPMENT. Over-the-top applications made after the four leaf (node) stage of development may result in boll loss, delayed maturity and/or yield loss. Any single over-the-top broadcast application should not exceed 1 quart per acre. No more than two over-the-top broadcast applications may be made per growing season from crop emergence through the four leaf (node) stage of development. Sequential over-the-top applications of this product must be at least 10 days apart and cotton must have at least two nodes of incremental growth between applications. **NOTE:** Always plant into a weed free seedbed. In no-till and stale seedbed systems, always burn down existing weeds before cotton emerges. Apply a preplant burndown treatment of 16-48 fluid ounces per acre of this product.

**Post-directed or hooded applications.** This product may be applied using precision by post-directed or hooded sprayers application to Roundup Ready cotton until through layby. Be especially careful to minimize contact of the spray with cotton leaves. At this stage, post-directed equipment should be used which directs the spray toward the base of the cotton plants, but still covers any weeds below the cotton plants. Place nozzles in a low position directing a horizontal spray pattern under the cotton leaves to contact weeds in the row. For best results, make applications while weeds are small (less than 3 inches). Minimize spray drift onto the leaves of the cotton plants by maintaining low spray pressure (less than 30 PSI). Applications that contact the cotton leaves may result in boll loss, delayed maturity and/or yield loss. Any single post-directed application should not exceed 1 quart per acre of this product. No more than two post-directed applications should be made per growing season from the fifth leaf through layby. Sequential in-crop applications of this product must be at least 10 days apart and cotton must have at least two nodes of incremental growth between applications.

**Salvage Treatment.** This treatment may be used after the four leaf stage of development and should only be used where weeds threaten to cause the loss of the crop. One quart per acre may be applied either as an over-the-top applications or as a post-directed treatments sprayed higher on the cotton plants and over the weeds. **NOTE: SALVAGE TREATMENTS WILL RESULT IN SIGNIFICANT BOLL LOSS, DELAYED MATURITY AND/OR YIELD LOSS. NO MORE THAN ONE SALVAGE TREATMENT SHOULD BE USED PER GROWING SEASON.**

**Weeds controlled.** For specific rates of application and instructions for control of various annual and perennial weeds, refer to "ANNUAL WEEDS RATE TABLE" section of the label booklet. Roundup Ultra applied at 1 quart per acre will burndown or suppress the growth of the following perennial weeds and reduce crop competition: yellow and purple nutsedge, rhizome johnsongrass, common bermudagrass, silverleaf nightshade, trumpet creeper, and redvine. Fall preharvest applications may be required for control of these perennial weeds.

Tank mixtures with other agricultural chemicals herbicides may result in reduced weed control or crop injury and are not recommended for over-the-top applications of this product made to cotton prior to the development of the fourth true cotton leaf.

