# SOYBEANS WITH ROUNDUP READY GENE - SOUTHEAST RECOMMENDATIONS - ANNUAL WEEDS CONTROL - GROUND APPLICATIONS

General Information

GENERAL INFORMATION

DO NOT APPLY THIS PRODUCT USING AERIAL SPRAY EQUIPMENT EXCEPT UNDER CONDITIONS AS SPECIFIED WITHIN THE LABEL OR CURRENT SUPPLEMENTAL LABELING ISSUED BY MANUFACTURER.

This product, a water-soluble liquid, mixes readily with water and nonionic surfactant to be applied as a foliar spray for the control or destruction of many herbaceous and woody 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. Hand-held sprayers may also be used.

This product moves through the plant from the point of foliage contact and into the root system. Visible effects on most annual weeds occur within 2 to 4 days but on most perennial brush species may not occur for 7 days or more. Extremely cool or cloudy weather following treatment may slow the 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 directed on the label, delay application until vegetation has emerged and reached the stages described for control of such vegetation under the \"WEEDS CONTROLLED\" section. Unemerged plants arising from unattached underground rhizomes or root stocks of perennials or brush will not be affected by the spray and will continue to grow. For this reason best control of most perennial weeds or brush is obtained when treatment is made at late growth stages approaching maturity.

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

Reduced or unacceptable control may result if weeds or brush are treated under poor growing conditions such as drought stress, disease or insect damage. Reduced results may also occur when treating weeds or brush heavily covered with dust.

Reduced control may result when applications are made to any weed or brush species 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 product off the foliage and a repeat treatment may be required.

This product does not provide residual weed control. For subsequent residual weed control, it is recommended that a residual herbicide program specified on the label be used. Read and carefully observe the precautionary statements and all other information appearing on the labels of all herbicides used.

Mixing this product with herbicides or other materials not recommended in the label may result in reduced performance. However, unless otherwise prohibited on the label or the label of an intended tank mix product, this product may be applied in combination with any herbicide registered for the same site, timing, and method of application. Observe the most restrictive label statements of various tank mix products used. LIABILITY FOR CROP INJURY, HERBICIDE NONPERFORMANCE OR OTHER LOSS OR DAMAGE RESULTING FROM A TANK MIXTURE NOT SPECIFIED ON THE LABEL, OR SUPPLEMENTAL LABELING DISTRIBUTED FOR THIS PRODUCT, IS SPECIFICALLY DISCLAIMED BY MANUFACTURER. BUYER AND ALL USERS ARE RESPONSIBLE FOR ALL LOSS OR DAMAGE IN CONNECTION WITH THE USE OR HANDLING OF MIXTURES OF THIS PRODUCT OR OTHER MATERIALS THAT ARE NOT EXPRESSLY RECOMMENDED IN THE LABEL.

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.

# APPLICATION EQUIPMENT AND TECHNIQUES

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

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 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 3 to 20 gallons of water per acre unless otherwise specified on the label. See the "WEEDS CONTROLLED" section for specific rates. Unless otherwise specified, do not exceed 1 1/2 pints 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 FEDERAL SUPPLEMENTAL LABEL FOR AERIAL APPLICATIONS IN THAT STATE FOR SPECIFIC

INSTRUCTIONS, RESTRICTIONS AND REQUIREMENTS.

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 above the manufacturer's recommendation.

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

This product plus Oust, Banvel, dicamba or 2,4-D tank mixtures may not be applied by air in California.

# CONTROLLED DROPLET APPLICATION (CDA)

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 3 to 15 gallons of water per acre.

For the control of labeled annual weeds with hand-held CDA units, apply a 15 percent solution of this product plus 1.5 ounces non-ionic surfactant per quart spray solution at a flow rate of 2 fluid ounces per minute and a walking speed of 1.5 MPH (1-1/2 pints of this product per acre). For the control of labeled perennial weeds, apply a 15 to 30 percent solution of this product plus 1.5 to 3 ounces non-ionic surfactant per quart spray solution at a flow rate of 2 fluid ounces per minute and a walking speed of 0.75 mph (1-1/2 to 3 pints of this product per acre).

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 Coarse Sprays Only

For control of weeds listed in the label using knapsack sprayers or high-volume spraying equipment utilizing handguns or other suitable nozzle arrangements-Prepare a 3/4 to 2 percent solution of this product in water, add a nonionic surfactant and apply to foliage of vegetation to be controlled. For specific rates of application and instructions for control of various annual and perennial weeds, see the \"WEEDS CONTROLLED\" section.

Applications should be made on a spray-to-wet basis. Spray coverage should be uniform and complete. Do not spray to point of runoff.

This product may be used as a 5 to 8 percent solution plus 0.5 to 1 ounce non-ionic surfactant per gallon spray solution for low-volume directed sprays for spot treatment of trees and brush. It is most effective in areas where there is a low density of undesirable trees or brush. If a straight stream nozzle is used, start the application at the top of the targeted vegetation and spray from top to bottom in a lateral zig-zag motion. Ensure that at least 50 percent of the leaves are contacted by the spray solution. For flat fan and cone nozzles and with hand-directed mist blowers, mist the application over the foliage of the targeted vegetation. Small, open-branched trees need only be treated from one side. If the foliage is thick or there are multiple root sprouts, applications must be made from several sides to ensure adequate spray coverage.

For use in knapsack 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 and add the correct amount of surfactant. Prepare the desired volume of spray solution by mixing the amount of this product in water: 2 tablespoons = 1 fluid ounce

# SELECTIVE EQUIPMENT

This product may be applied through a recirculating spray system, a shielded applicator, or a wiper applicator 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.

- A recirculating spray system directs the spray solution onto weeds growing above desirable vegetation, while spray solution not intercepted by weeds is collected and returned to the spray tank for reuse.
- A shielded applicator directs the herbicide solution onto weeds, while shielding desirable vegetation from the herbicide.
- A wiper applicator applies the herbicide solution onto weeds by rubbing the weed with an absorbent material containing the herbicide solution.

#### AVOID CONTACT WITH DESIRABLE VEGETATION.

Contact of the herbicide solution with the desirable vegetation may result in damage or destruction. Applicators used above desired vegetation should be adjusted so that the lowest spray stream or wiper contact point is at least 2 inches above the desirable vegetation. Droplets, mist, foam, or splatter of the herbicide solution settling on desirable vegetation may result in discoloration, stunting or destruction.

Applications made above the crops (such as wiper applications) should be made when the weeds are a minimum of 6 inches above the desirable vegetation. Better results may be obtained when more of the weed is exposed to the herbicide solution. Weeds not contacted by the herbicide solution will not be affected. This may occur in dense clumps, severe infestations or when the height of the weeds varies so that not all weeds are contacted. In these instances, repeat treatment may be necessary.

# SHIELDED APPLICATORS

When applied as directed under conditions described for shielded applicators, this product will control those weeds listed in the "WEEDS CONTROLLED" section.

Use the equation given 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.

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

#### 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.

Add 10 ounces nonionic surfactant per gallon of this product added to wiper solution.

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.

ADDITIONAL DIRECTIONS FOR USE

FOR USE AND DISTRIBUTION ONLY IN MISSISSIPPL

TO RESTRICT USE AS A PRE-PLANT BURN DOWN TREATMENT ON THOSE

#### AGRICULTURAL CROPS OTHER THAN FORESTLAND

# **Aerial Application Restrictions:**

Aerial application is prohibited in Zone 1, south of Highway 8 in the counties listed, from March 15 through April 30, except by permit from an authorized employee of the Mississippi Department of Agriculture and Commerce, Bureau of Plant Industry (Ph. 1-888-257-1285) Aerial application is prohibited in Zone II, north of Highway 8 in the counties listed below, from March 25 through April 30, except by permit from an authorized employee of the Mississippi Department of Agriculture and Commerce, Bureau of Plant Industry (Ph. 1-888-257-1285)

Zone I: South of Highway 8 in the counties of Bolivar, Sunflower, Leflore and Grenada plus the entire counties of Carroll, Holmes, Humphreys, Washington, Sharkey, Issaguena, Yazoo and Warren.

Zone II: North of Highway 8 in the counties of Bolivar, Sunflower, Leflore, and Grenada plus the entire counties of Tallahatchie, Tate, Quitman, Coahoma, Tunica, Panola, and Desoto.

Limitations, Restrictions, and Exceptions

POSTEMERGENCE APPLICATIONS TO SOYBEANS WITH THE ROUNDUP READY GENE

#### General Information

NUFARM, INC. 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 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.
- The Roundup Ready designation indicates that the soybean contains a patented gene which provides tolerance to glyphosate herbicides. Information on Roundup Ready soybeans may be obtained from your seed supplier.

# **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 Application Rates:

- Combined total per year for all applications: 6 quarts per acre
- Preplant, Preemergence applications: 3-3/4 quarts per acre
- Total in-crop applications from cracking throughout flowering: 2-1/4 quarts per acre
- Maximum preharvest application rate: 3/4 quart per acre

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.

PRECAUTIONS/RESTRICTIONS: The combined total application from crop emergence through harvest must not exceed 2-1/4 quarts per acre. The maximum rate for any single in crop application is 1-1/2 quarts per acre. The maximum combined total of this product which can be applied during flowering is 1-1/2 quarts per acre. Allow a minimum of 14 days between final application and harvest of soybeans. 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 plus nonionic surfactant at 0.5 to 1 percent by total spray volume 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.

#### ANNUAL WEED RATE

The following rate recommendations will provide control of labeled grasses and broadleaf weeds in conventional and no-till soybean production systems.

Refer to the rate recommendations for specific annual weeds.

NUFARM, INC. WILL NOT WARRANT CROP SAFETY OR WEED CONTROL WHEN ROUNDUP READY SOYBEANS ARE TREATED WITH HERBICIDES NOT SPECIFIED ON THE 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 the label (or current supplemental label) ARE APPLIED AT THE SOLE RISK OF THE BUYER AND USER, whether applied preemergence or applied postemergence as a tank mixture with this product.

This product may be used up to 1-1/2 quarts per acre plus nonionic surfactant in any single application for control of annual weeds, where heavy weed densities exist.

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 12 to 48 fluid ounces plus nonionic surfactant per acre of this product can be used to control existing weeds prior to crop emergence.

#### 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 3/4 quart per acre, plus nonionic surfactant, on 3-6\" weeds is recommended. Weeds will generally be 3-6\" tall 2 to 3 weeks after planting.

Weed Height: Rate

3 – 6 inches: 24 fluid ounces per acre

6 - 12 inchesl: 36 fluid ounces per acre

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, plus nonionic surfactant may be necessary to control late flushes of weeds.

Sequential Application (if needed)

Weed Height: Rate

2 - 3 inches: 12 fluid ounces per acre

3 - 6 inches: 18 fluid ounces per acre

6 - 12 inches: 24 fluid ounces per acre

Florida pusley, hemp sesbania and spurred anoda: Apply 3/4 quart per acre, plus nonionic surfactant, to weeds 2-4\" for the initial application. Apply 3/4 quart per acre, plus nonionic surfactant when these weeds are 3-6\" tall if a sequential application is necessary.

Morningglory, black nightshade, groundcherry, and Pennsylvania smartweed: Apply 18 fluid ounces per acre, plus nonionic surfactant, on 1-3\" weeds, 24 ounces on 3-6\" weeds, or 32 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 per acre, plus nonionic surfactant, for sequential applications. The combined total of all in-crop postemergence treatments must not exceed 72 fluid ounces per acre.

#### Method

Broadcast/Foliar Ground

Pre-Harvest Interval

14 days

#### Rates

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Restricted Entry Interval

# 12 hours

Tillages

Conventional

No-Tillage

Timings

Postemergence (Crop)