

Reg # 241-328

PM-23

1/8/14

RESOLVE®  
Herbicide

FOR USE IN SOYBEANS

ACTIVE INGREDIENTS:

imazethapyr (+)-2-[4,5-dihydro-4-methyl-4-(1-methyl-ethyl)-5-oxo-1H-imidazol-2-yl]-5-ethyl-3-pyridinecarboxylic acid\* . . . 2.74%

metolachlor 2-chloro-N-(2-ethyl-6-methylphenyl)-N-(2-methoxy-1-methylethyl)acetamide . . . . .68.50%

INERT INGREDIENTS . . . . . 28.76%

TOTAL . . . . . 100.00%

\*RESOLVE contains 6.55 pounds of active ingredients per gallon (6.3 pounds ai of metolachlor and 0.25 pounds acid equivalent of imazethapyr).

EPA Reg. No. 241-328

EPA Est. No. ✓

KEEP OUT OF REACH OF CHILDREN

WARNING/AVISO!

PRECAUCION!

PRECAUCION AL USUARIO: Si usted no lee ingles, no use este producto hasta que la etiqueta le haya sido explicada ampliamente.

STATEMENT OF PRACTICAL TREATMENT

IF IN EYES: Hold eyelids open and flush with a steady, gentle stream of water for 15 minutes. Get medical attention.

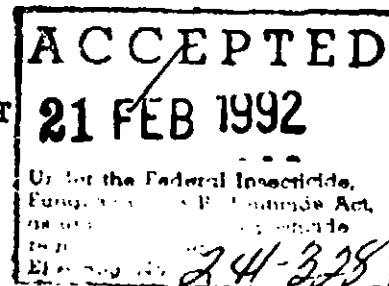
IF SWALLOWED: Drink promptly a large quantity of milk, egg white, gelatin solution, or if these are not available, large quantities of water. Avoid alcohol. Get medical attention.

IF ON SKIN: Wash with plenty of soap and water. Get medical attention if irritation persists.

In case of an emergency endangering life or property involving this product, call collect, day or night, Area Code 201-835-3100.

See Next Page for Additional Precautionary Statements

AMERICAN CYANAMID COMPANY  
AGRICULTURAL DIVISION  
CROP PROTECTION CHEMICALS DEPARTMENT  
WAYNE, NJ 07470 ©1991



Net Contents: 2.5 gallons  
(9.45 liters)

• Registered Trademark of American Cyanamid Company

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**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS (AND DOMESTIC ANIMALS)**

**CAUTION**

Causes substantial but temporary eye injury. Wear goggles or a face shield. Harmful if swallowed or absorbed through skin. Do not get in eyes or on clothing. Avoid contact with skin. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

**ENVIRONMENTAL HAZARDS**

This product is toxic to fish. DO NOT apply directly to water or areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff from treated areas may be hazardous to fish in neighboring areas. DO NOT clean equipment or dispose of equipment washwaters in a manner that will contaminate water resources.

**DIRECTIONS FOR USE**

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

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

Observe all cautions and limitations in this leaflet. DO NOT use RESOLVE other than in accordance with the instructions set forth on this label. The use of RESOLVE not consistent with this label can result in injury to crops, animals, or persons. Keep container closed to avoid spills and contamination.

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DO NOT apply this product through any type of irrigation system.

**STORAGE AND DISPOSAL**

**STORAGE:** KEEP FROM FREEZING. DO NOT STORE BELOW 32°F.

DO NOT contaminate water, food, or feed by storage or disposal.

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

**CONTAINER DISPOSAL:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

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DISCLAIMER

The label instructions for the use of this product reflect the opinion of experts based on research and field use. The directions are believed to be reliable and should be followed carefully. However, it is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the use of, or application of the product contrary to label instructions, all of which are beyond the control of American Cyanamid Company. All such risks shall be assumed by the user.

✓

American Cyanamid Company shall not be responsible for losses or damages resulting from use of this product in any manner not set forth on this label. User assumes all risks associated with the use of this product in any manner not specifically set forth on this label.

ADDED ✓

American Cyanamid Company warrants only that the material contained herein conforms to the chemical description on the label and is reasonably fit for the use therein described when used in accordance with the directions for use, subject to the risks referred to above. CYANAMID DOES NOT MAKE OR AUTHORIZE ANY AGENT OR REPRESENTATIVE TO MAKE ANY OTHER WARRANTIES, EXPRESS OR IMPLIED AND EXPRESSLY EXCLUDES AND DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

re-worDED ✓

BUYER'S EXCLUSIVE REMEDY AND AMERICAN CYANAMID'S EXCLUSIVE LIABILITY, WHETHER IN CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, SHALL BE LIMITED TO REPAYMENT OF THE PURCHASE PRICE OF RESOLVE. In no case shall Cyanamid or the seller be liable for consequential, special or indirect damages resulting from the use or handling of this product.

re-worDED ✓

USES WITH OTHER PRODUCTS (TANK-MIXES)

If this product is used in combination with any other product except as specifically recommended in writing by American Cyanamid Company then American Cyanamid Company shall have no liability for any loss, damage or injury arising out of its use in any such combination not so specifically recommended. If used in combination recommended by American Cyanamid Company, the liability of American Cyanamid Company shall in no manner extend to any damage, loss or injury not directly caused by the inclusion of the American Cyanamid Company product in such combination use, and in any event shall be limited to return of the account of the purchase price of the American Cyanamid Company product.

ADDED ✓

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GENERAL INFORMATION

Entry into treated fields is not permitted without protective clothing until sprays have dried.

ADDED

RESOLVE may be applied in no-till, minimum tillage, or conventional tillage soybean production. Apply RESOLVE either preplant surface-applied (in no-till or minimum tillage), preplant incorporated, or preemergence. Apply RESOLVE up to two weeks prior to planting soybeans. Refer to specific directions under the APPLICATION DIRECTIONS section. After RESOLVE is applied, some susceptible weeds emerge, growth stops, and the weeds either die or are not competitive with the crop.

ADDED

The weed killing activity of RESOLVE involves herbicide uptake by weed roots and rapid translocation to the growing points. Therefore, adequate soil moisture is important for optimum RESOLVE activity. When adequate soil moisture is present, RESOLVE will provide residual control of susceptible germinating weeds.

RE-WORDED

Occasionally, internode shortening and/or temporary yellowing of soybean plants may occur following RESOLVE applications. This will not affect soybean yields.

RE-WORDED

Replanting: If replanting is necessary in a field previously treated with RESOLVE, the field may be replanted to soybeans. Rework the soil no deeper than the treated zone. DO NOT apply a second treatment of RESOLVE.

RE-WORDED

MIXING INSTRUCTIONS

Fill the spray tank one-half to three-quarters full with clean water. While agitating add the required amount of product and then fill the remainder of the tank with water. Maintain agitation while spraying to ensure a uniform spray mixture.

When RESOLVE is tank mixed with Gramoxone Super<sup>1</sup> or Roundup<sup>2</sup>, add RESOLVE to the tank first, then add Gramoxone Super or Roundup. When Gramoxone Super is included in a tank mixture, add 8 ounces of non-ionic surfactant per 100 gallons of spray mixture as the last ingredient in the tank.

ADDED

To avoid injury to sensitive crops, spray equipment used for RESOLVE applications must be drained and thoroughly cleaned with water before being used to apply other products.

ADDED

<sup>1</sup>Gramoxone Super is a trademark of ICI Americas, Inc.

<sup>2</sup>Roundup is a trademark of Monsanto Agricultural Products Company.

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### HERBICIDE COMBINATIONS

Under conditions of heavy grass pressure, the addition of a grass herbicide such as Dual<sup>3</sup>, Lasso<sup>4</sup>, PROWL<sup>®</sup> or trifluralin may be tank-mixed with RESOLVE. ✓

See recommendation for addition of Roundup or paraquat to the spray solution under the NO-TILL OR REDUCED TILLAGE section.

When RESOLVE is used in combination with another herbicide, refer to the respective label for rates, methods of application, proper timing, weeds controlled, restrictions and precautions. Always use in accordance with the more restrictive label restrictions and precautions. No label dosage should be exceeded. RESOLVE cannot be mixed with any product containing a label prohibiting such mixtures.

ADDED

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<sup>3</sup>Dual is a trademark of Ciba-Geigy Corporation

<sup>4</sup>Lasso is a trademark of Monsanto Agricultural Products Company.

<sup>®</sup>Registered Trademark of American Cyanamid Company

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RE-WRITTEN

SPRAYING INSTRUCTIONS

DO NOT apply when wind velocity is greater than 10 mph, or when spray may be carried to sensitive crops. Sensitive crops include leafy vegetables, sugarbeets, and cotton.

GROUND APPLICATIONS:

Uniformly apply with properly calibrated ground equipment in 10 to 40 gallons of water per acre. A spray pressure of 20 to 40 psi is recommended.

APPLICATIONS WITH LIQUID FERTILIZER:

RESOLVE can be applied to the soil in liquid fertilizers alone or in combination with PROWL, trifluralin, Dual or Lasso. Follow all RESOLVE label recommendations regarding incorporation, timing of application, special instructions and precautions. Apply treatments in 20 or more gallons of liquid fertilizer per acre with ground equipment. Always test the compatibility of RESOLVE with liquid fertilizer before mixing in the spray tank.

ADDED

AERIAL APPLICATIONS:

Uniformly apply with properly calibrated aerial equipment in 5 or more gallons of water per acre.

To avoid injury to sensitive crops from drift, aerial applicators must adhere to the following SPECIAL AERIAL USE DIRECTIONS AND PRECAUTIONS:

- Use nozzles which produce a coarse spray.
- Nozzle height above ground must be a maximum of 10 feet.
- Nozzles must be pointed toward the rear of the aircraft. The downward angle of the nozzle should not be greater than 20 degrees.
- To minimize wing-tip vortex roll, nozzles or spray boom must not be located any closer to end of wing or rotor than three-fourths the distance from the center of the aircraft.
- Use a maximum spray pressure of 40 psi.
- A buffer zone must be established between the area to be sprayed and sensitive crops.
- DO NOT spray when wind velocity is greater than 5 mph.

Applicator is responsible for any loss or damage which results from spraying RESOLVE in manner other than recommended on this label. In addition, applicator must follow all applicable state and local regulations and ordinances in regard to spraying.

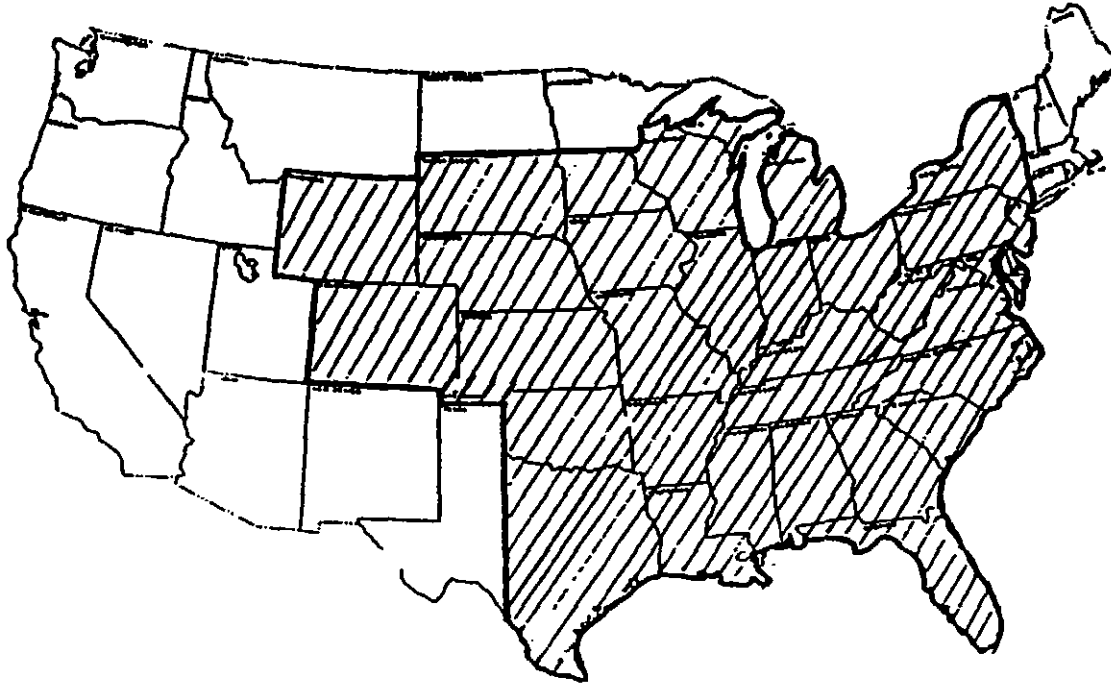
RESOLVE HERBICIDE USE AREA

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RESOLVE may be applied to soybeans only in the states or parts of states shaded in the map below:

(In Minnesota RESOLVE may be applied south of state highway 210. In Texas RESOLVE may be applied east of state highway 83).

ADDED ✓



USE RATE  
(1 QUART PER ACRE)

Apply RESOLVE at a broadcast rate of 1 quart per acre for all methods of application: preplant surface (including minimum and no-till), preplant incorporated or premergence. At this broadcast rate, one gallon of RESOLVE will treat 4 acres of soybeans.

NOTE: If RESOLVE is applied 15 to 30 days prior to planting, or applied to soils with greater than 3% organic matter, add 0.5 pint Dual 8E to the spray mixture.

(CHANGED FROM 4%)

NOTE: Only one application of RESOLVE may be made during the season.

WEEDS CONTROLLED

When applied as directed, RESOLVE will control or reduce competition from the weeds listed below.

NOTE: C = Control, R = Reduced Competition ✓

ADDED

The following grass and broadleaf weeds are controlled by recommended treatments of RESOLVE:

## BROADLEAF WEEDS

	Weeds Controlled	Preplant Incorporated	Preplant, Preemergence	
	Anoda, spurred	C	C	
ADDED	Beggarweed, Florida	R	R	✓
	Buffalobur	C		
	Carpetweed	C	C	
	Cocklebur, common*	C		
ADDED	Devilsclaw	C		
	Galinsoga	C	C	
	Jimsonweed	C		
	Kochia	C	C	
	Lambquarters, common	C		
ADDED	Mallow, Venice	R		
	Morningglory			
	entireleaf	R		
	ivyleaf	R		
	pitted	R		
	smallflower	C	C	
	tall	R		
	Mustard species	C	C	
	Nightshade			
	black	C	C	
	Eastern black	C	C	
	hairy	C	C	
	Pigweed			
	palmer	C	C	
	redroot	C	C	
	smooth	C	C	
	spiny	C	C	
ADDED	Poinsettia, wild	C	C	
	Puncturevine	C	C	
	Purslane, common	C	C	
	Pusley, common	C	C	
	Ragweed,			
	common	R		
	giant	R		
	Sida, prickly (teaweed)	C		
	Smartweed			
	ladysthumb	C	C	
	Pennsylvania	C	C	
	Spurge			
	prostrate	C	C	
	spotted	C	C	
	Sunflower, common	C		
	Velvetleaf	C	C	
	Waterhemp, tall	C	C	

DELETED:

SHEPHERDSPURSE

\*Cultivation and or a postemergence herbicide may be required for season-long control.

RE-WORDED



GRASS WEEDS

9 7 14

Weeds Controlled	Preplant Incorporated	Preemergence
Barnyardgrass	C	C
Crabgrass		
large	C	C
smooth	C	C
Crowfootgrass	C	C
ADDED - Cupgrass, Southwestern	C	C ✓
Foxtail		
giant	C	C
green	C	C
giant green	C	C
robust purple	C	C
robust white	C	C
yellow	C	C
Goosegrass	C	C
Johnsongrass		
seedling	C	C
rhizome	R	
Millet,		
foxtail	C	C
wild proso	R	
Panicum		
fall	C	C
ADDED - Texas	R	
Sandbur, field	R	R
Shattercane	R	
Signalgrass, broadleaf	C	
Witchgrass	C	C

SEDGES

Nutsedge		
yellow	C	
ADDED - purple	C	

DELETED : ITCHGRASS

APPLICATION INSTRUCTIONS

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RESOLVE provides effective weed control in conservation tillage systems designed to meet conservation compliance requirements. RESOLVE can be applied as an early preplant, preplant incorporated, or preemergence treatment in soybeans. It can also be applied in conventional, minimum tillage and no-till production systems. The application method of choice will depend on the anticipated weed spectrum and the preference of the applicator. If weeds have emerged, see instructions under NO-TILL OR REDUCED TILLAGE section.

RE-WORDED

NOTE: See instructions under USE RATE for applications made 15 to 30 days prior to planting and application to soils containing greater than 4% organic matter.

RESOLVE controls weeds by uptake by weed roots, and translocation to the growing points where it stops weed growth.

ADDED

Adequate soil moisture is required for optimum activity of RESOLVE. For surface applications, rainfall or overhead irrigation is necessary to move RESOLVE into the weed germination zone. The amount of rainfall or irrigation required following application depends on existing soil moisture, soil texture and organic matter content. Sufficient water to moisten the soil to a depth of 2 inches is normally adequate. If adequate moisture is not received within 7 days after a surface-applied treatment, then a cultivation is recommended to control escaped weeds. When adequate moisture is received after dry conditions, RESOLVE will provide residual control of susceptible germinating weeds; activity on established weeds will depend on the weed species and the location of its root system in the soil.

In ridge-till plantings, RESOLVE may be applied early preplant or at soybean planting. If the herbicide is banded over the row, cultivation will be required for weed control between the beds. If cultivation is not possible or if weed pressure is heavy, apply RESOLVE in a broadcast application. Use proportionally less RESOLVE per acre in a band versus a broadcast application. If rainfall does not occur within 7 days of application, a rotary hoe incorporation will enhance weed control. See PREEMERGENCE APPLICATIONS and PREPLANT INCORPORATED APPLICATIONS for further information.

ADDED

SURFACE APPLICATIONS MADE BEFORE PLANTING

Apply RESOLVE up to two weeks prior to planting soybeans in minimum tillage or no-tillage systems. If sufficient rain does not occur before planting to activate RESOLVE, shallow incorporation before planting will enhance weed control.

RE-WORDED

PREEMERGENCE APPLICATIONS

Apply RESOLVE during planting (behind the planter), or after planting but before crop emergence.

PREPLANT INCORPORATED APPLICATIONS

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RESOLVE may be applied following land preparation and should be thoroughly incorporated to a depth of 1 to 2 inches. Application may be made up to 14 days prior to planting (early preplant). Incorporate prior to soybean planting and within 7 days of application. Mechanical incorporation can be achieved by the following:

- (a) Disk harrow set to cut 3 to 4 inches deep and operated at 4 to 6 mph with the second pass at an angle to the first.
- (b) PTO-driven equipment (tillers, cultivators, hoes) set to cut 2-3 inches deep and operated one time at 4 mph or less.
- (c) Rolling cultivator set to cut 2 to 4 inches deep and operated two times at 6 to 8 mph. Use only on coarse textured soils.
- (d) Field cultivator with 3 to 4 rows of sweeps (Do not use chisel points), spaced at intervals of 7 inches or less and staggered so that no soil is left unturned, set to cut 3 inches deep, and operated two times at more than 5 mph with the second pass made at an angle to the first.
- (e) LELY-Roterra<sup>5</sup> set and operated according to the manufacturer's directions to thoroughly incorporate RESOLVE to a depth of 1 to 2 inches.
- (f) Do-All set and operated according to the manufacturer's directions to thoroughly incorporate RESOLVE to a depth of 1 to 2 inches.

If soybeans are planted on beds, apply and incorporate after bed formation using PTO-driven equipment or a rolling cultivator. For optimum weed control, RESOLVE should be maintained in the surface 1-2 inches of the finished bed.

ADDED

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<sup>5</sup>LELY-Roterra is a trademark of Lely.

NO-TILL OR REDUCED TILLAGE:

RESOLVE is effective in controlling weeds in conservation tillage production systems. Apply RESOLVE treatments up to 45 days prior to planting (early preplant) but before crop emergence.

To ensure thorough coverage, use a minimum of 20 gallons of water per acre. Use higher gallonage for fields with dense vegetation or heavy crop residues. Adjust the boom height to ensure proper coverage of weed foliage (according to the manufactures recommendation). The nozzle spacing on the boom should be 20 inches. Use only standard flat-fan nozzle tips. Use ground equipment only.

RESOLVE will control emerged problem weeds such as velvetleaf, smartweed, common cocklebur, and pigweeds. The weed size should not exceed 3" for velvetleaf and smartweed, and 8" for cocklebur and pigweeds. Add surfactant to the spray mixture at the rate of 1 qt./100 gal. AND a nitrogen based fertilizer (such as 28%N, 32%N or 10-34-0) at the rate of 1-2 qt./acre for optimum activity. Ammonium sulfate (spray grade) may be substituted for liquid fertilizer at the rate of 4 lbs. per acre.

If other vegetation is present (not controlled by RESOLVE), apply paraquat or Roundup in combination with RESOLVE. Refer to the respective labels for rates, methods of application, proper timing, weeds controlled, restrictions, and precautions. Use ground equipment only.

NOTE: Adjust planters to ensure adequate seed coverage.

ADDED

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## ROTATIONAL CROPS

The following rotational crops may be planted after applying RESOLVE at the recommended rate in soybeans:

1. Anytime
  - Lima beans
  - Southern peas
  - Soybeans
  - Peanuts
2. Four and one-half months after RESOLVE application:
  - Barley
  - Wheat
  - Edible beans and peas (other than lima beans and Southern peas)
3. Nine and one-half months after RESOLVE application:
  - Field corn
  - Field corn grown for seed\*
4. Twenty six months after RESOLVE application.
  - Canola (Rapeseed)
  - Carrots
  - Celery
  - Cole crops
  - Garlic
  - Onions
  - Potatoes
  - Spinach
  - Sugarbeets
  - Tomatoes

DO NOT plant other rotational crops prior to 18 months after a RESOLVE application.

\* Several seed companies have tested a wide range of inbreds for sensitivity to RESOLVE soil residues and have reported good crop safety. However, due to the proprietary nature of seed production, American Cyanamid has not been given access to the inbred data. Growers are directed to contact the seed company for information and recommendations regarding the planting of corn grown for seed in fields treated with RESOLVE the previous year. Since growing conditions, environmental conditions and grower practices are beyond the control of American Cyanamid Company, all risks and consequences associated with planting seed corn inbreds into fields treated previously with RESOLVE shall be assumed by the user.

PRECAUTIONS

ADDED

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If soybeans are furrow irrigated, till the soil prior to planting winter wheat or barley. The beds should be broken up and the soil mixed with tillage equipment set to cut 4-6 inches deep.

Use of RESOLVE herbicide in accordance with label directions is expected to result in normal growth of rotational crops in most situations; however, various environmental and agronomic factors make it impossible to eliminate all risks associated with the use of this product and, therefore, rotational crop injury is always possible.

ADDED

Only rotational crops harvested at maturity may be used for feed or food.

In the event of a crop loss due to weather, soybeans can be replanted. DO NOT work the soil deeper than 2 inches.

There should be an interval of at least 85 days between an application of RESOLVE and soybean harvest.

DO NOT graze or feed treated soybean forage, hay or straw to livestock.

DO NOT apply products containing chlorimuron ethyl (Classic<sup>6</sup>, Canopy<sup>6</sup>, Gemini<sup>6</sup>, Lorox Plus<sup>6</sup>, PREVIEW<sup>6</sup>, etc.) or imazaquin (SCEPTER<sup>®</sup>, SQUADRON<sup>®</sup>, or TRI-SCEPT<sup>®</sup>, SCEPTER<sup>®</sup> O.T.<sup>®</sup>, or SCEPTER<sup>®</sup> 70DG) or products containing imazethapyr (RESOLVE, PURSUIT<sup>®</sup>, PURSUIT<sup>®</sup> PLUS, or PASSPORT<sup>®</sup>) the same year as RESOLVE or injury to follow crops may occur.

(DELETED ALASCEPT)

ADDED

DO NOT tank-mix RESOLVE with clomazone containing herbicides (Command<sup>7</sup> or Commence<sup>7</sup>).

ADDED

<sup>6</sup>Classic, Canopy, Preview, Gemini and Lorox Plus are trademarks of E.I. duPont de Nemours and Company.

<sup>7</sup>Command and Commence are trademarks of FMC Corporation.

<sup>®</sup>Registered Trademarks of American Cyanamid Company.

For additional information regarding the use of RESOLVE herbicide, call telephone no. 800-942-0500.

ADDED

American Cyanamid Company  
Agricultural Division  
Crop Protection Chemicals Department  
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