

PM 25 524-450

File  
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United States Environmental Protection Agency  
Washington, D.C. 20460

Office of  
Prevention, Pesticides and  
Toxic Substances

OCT 12 1993

Dr Russell P Schneider  
MONSANTO CO  
AGENT FOR: MONSANTO AGRICULTURAL CO  
700 14TH ST, N.W. SUITE 1100  
WASHINGTON DC 20005

Subject: Label Amendment Submission of 06/14/93  
in Compliance with WPS Labeling Requirements  
EPA Reg No. 524-450  
EXPEDITE GRASS AND WEED II HERBICIDE

Dear Registrant:

The labeling cited above and submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is accepted subject to the comments listed below.

Based on your certification, the Agency has accepted only those changes to your labeling which are necessary to comply with PR Notices 93-7 and 93-11, which reflect the WPS labeling requirements of 40 CFR part 156, subpart K. Any other labeling changes submitted in connection with this amendment application and not directly related to compliance with PR Notice 93-7 or 93-11 have neither been reviewed nor accepted by the Agency. If you wish to make any such changes, you must submit a separate amendment application proposing them. If your product registration is currently suspended, acceptance of this labeling amendment does not affect the suspension in any way.

A copy of your proposed labeling stamped "Accepted with comments" is attached. Make any required changes described in the attached and send three copies of final labeling as soon as it is available to:

2 7 18

Document Processing Desk (FIN-LABEL)  
Office of Pesticide Programs (H-7504C)  
U.S. Environmental Protection Agency  
401 M Street SW  
Washington, DC 20460-0001

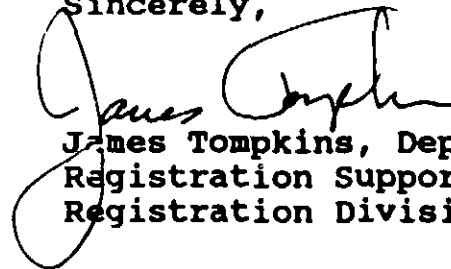
Hand or courier deliveries of final labels may be made to:

Document Processing Desk (FIN-LABEL)  
Room 266A Crystal Mall 2  
1921 Jefferson Davis Highway  
Arlington, VA 22202

Please correct the typographical errors circled on the draft before printing final labeling.

In your final labeling the "Agricultural Use Requirements" text" must be contained in a clearly separate box. This box may be set apart by a line, by another graphical device, by a different color background, or in any other way that clearly distinguishes it from surrounding text.

Sincerely,



James Tompkins, Deputy Chief  
Registration Support Branch  
Registration Division (H7505W)

3718

MONSANTO CO  
EXPEDITE GRASS AND WEED II HERBICIDE  
524-450 06/14/93  
Original Submission

Delete the following statement from the label: "Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions on an EPA chemical resistance category selection chart".

There is a typographical error(s) in the Agricultural Use Requirements box.  
There is a typographical error(s) in the User Safety Recommendations section.

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**Expedite® Grass & Weed II Residual Herbicide**

**EPA Reg. No. 524-450**

**Labeling to comply with Worker Protection Standard**

**for**

**1.32 gallon container**

ACCEPTED  
with COMMENTS  
in EPA Letter Dated

U.T. 1993  
Under the Federal Insecticide,  
Fungicide, and Rodenticide Act  
as amended, for the pesticide  
registered under EPA Reg. No.  
524-450

**Monsanto Company**  
**1993**

5718

**EXPEDITE®  
GRASS & WEED II HERBICIDE  
by Monsanto**

**High Visibility - No Mark**

**For Non-Selective Postemergence Control of Unwanted Vegetation  
Contains glyphosate, the active ingredient in Roundup® herbicide.**

**[The Roundup Logo]**

**Specially formulated for Expedite™ Application Equipment.**

**Complete Directions for Use**

**EPA Reg. No. 524-450**

**Covers from 19,000 to 38,000 square feet.**

**®™Expedite is a registered trademark of, and used under license  
from, Nomix Plc.**

**®Roundup is a registered trademark of Monsanto Company.**

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**1993-1**

**875.15.300.xx/53**

**©MONSANTO COMPANY 1993**

**MONSANTO COMPANY  
AGRICULTURAL PRODUCTS  
ST. LOUIS, MISSOURI 63167 U.S.A.**

**(SUPERPRO.LBL)**

**1**

**(11/21/90)**



Call Collect, day or night, (314) 694-4000.

**Environmental Hazards**

Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment cleaning solutions.

**Physical or Chemical Hazards**

Apply this product ONLY through Expedite application equipment designed for its use. DO NOT STORE OR APPLY THIS PRODUCT IN ANY OTHER TYPE OF CONTAINER, PARTICULARLY GALVANIZED STEEL OR UNLINED STEEL CONTAINERS OR SPRAY TANKS. This product will react with such containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture. This gas mixture could flash or explode, causing serious personal injury, if ignited by open flame, spark, welder's torch, lighted cigarette or other ignition source.

**ACTIVE INGREDIENT:**

*Glyphosate, N-(phosphonomethyl) glycine	
in the form of its isopropylamine salt .....	15.8 %
INERT INGREDIENTS:.....	84.2 %
	100.0 %

Contains petroleum distillates.

\*Contains 162 grams per litre or 1.35 pounds per U.S. gallon of the active ingredient, glyphosate, in the form of its isopropylamine salt. Equivalent to 120 grams per litre or 1.0 pound per U.S. gallon of the acid, glyphosate.

This product is protected by U.S. Patent No. 4,405,531. Other patents are pending.

No license granted under any non-U.S. patent(s).

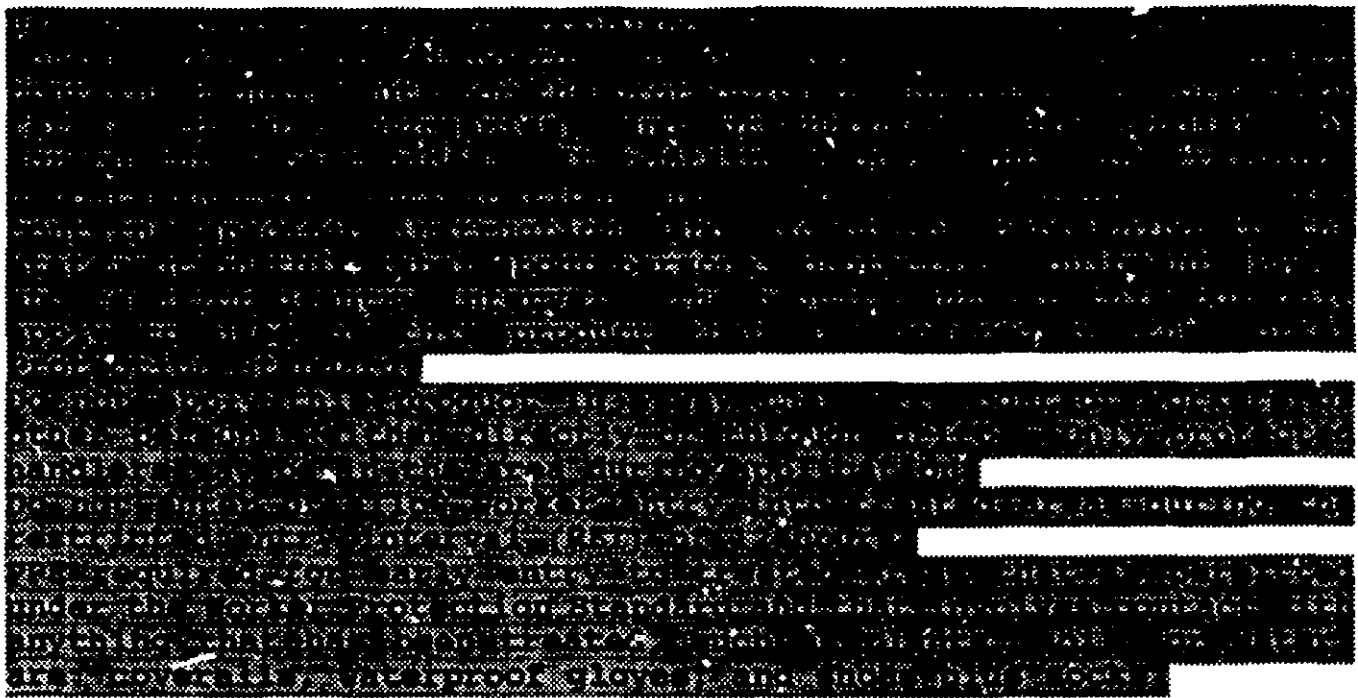
**DIRECTIONS FOR USE**

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

**FOR STATE OF CALIFORNIA: CALIFORNIA PESTICIDE REGULATION**

**REGISTRATION INFORMATION**

**BEST AVAILABLE COPY**



**Storage and Disposal**

Do not contaminate water, foodstuffs, feed or seed by storage or disposal.

**STORAGE:**  
Store this product between 32°F and 100°F in its original container and in a secured storage area.

**DISPOSAL:**  
Wastes resulting from the use of this product that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticide disposal or in accordance with applicable Federal, state or local procedures.

Emptied container retains vapor and product residue. Observe all labeled safeguards until container is destroyed. Do not reuse container.

When container is completely emptied through Expedite application equipment, 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.

**General Information**

This product is a nonselective weed killer that is applied, using Expedite application equipment, to the foliage of actively growing

**BEST AVAILABLE COPY**



weeds. It is absorbed by the leaves and moves throughout the stem and roots to control the entire plant. Visible symptoms of control may require a week or more to appear, with complete browning usually occurring in 1 to 4 weeks. Symptoms are a gradual wilting and yellowing of the treated plant foliage followed by browning and deterioration of both shoots and roots.

This product is recommended for commercial, forestry, industrial, noncropland and residential vegetation management in areas such as airports, ditchbanks, farmsteads, fencerows, forestry and Christmas tree plantations, greenhouses, golf courses, highways and roadsides, industrial plant sites, institutional sites, municipalities, lawns, lumberyards, nurseries, parking areas, parks, playgrounds, petroleum tank farms, pipeline, power, telephone and utility rights-of-way, railroads, schools, storage areas and similar sites. This product is also recommended for weed control in agricultural crops as specified in the "CROPPING SYSTEMS" section of this label.

When this product is used as a directed application to control undesirable vegetation growing around established ornamentals, trees, shrubs or vines, avoid spray or drift contact with foliage, stems or green (immature) tree bark.

Rainfall or irrigation within 2 hours after application may wash the product off plant foliage resulting in reduced weed control. Delay mowing, clipping, tilling, planting or sodding of treated areas for at least 7 days after application to allow product to move within the plant for the most effective control.

**THIS PRODUCT CAN INJURE OR DESTROY ALL VEGETATION CONTACTED. AVOID SPRAY CONTACT WITH THE FOLIAGE OF DESIRABLE TURF, ORNAMENTALS, SHRUBS OR TREES. DO NOT APPLY OVER THE TOP OF DESIRABLE PLANTS.**

### How to Apply

Apply this product as a uniform spray over the foliage of undesirable vegetation. Avoid applications during windy conditions, as spray drift or swath displacement may cause damage to any vegetation contacted. Use only Expedite application equipment when applying this product.

When used in greenhouses, turn off air circulation fans while spraying. **DESIRABLE GREENHOUSE PLANTS WILL BE INJURED IF CONTACTED BY SPRAY OR DRIFT OF THIS PRODUCT.**

To select general flow rate settings for applying this product, use the Expedite Set-N-Spray settings listed in the following application guide. The letters followed by a number (A1...F1) represent equipment settings for flow rates within the application range recommended for this product. If calibration is desired to obtain equipment settings, see the "HOW TO CALIBRATE" section of this label. Calibration is recommended where more precise equipment calibration is desired, or when the application rate needs to be customized for the type of weeds present.

When the desired head setting is obtained, install the spinner as specified in the following guide. For best results, make applications before weeds are allowed to form a dense canopy. Best results are obtained when the spinner is producing a uniform spray pattern. For spray widths less than 15 inches, this is obtained by holding the lance head as close as practical to the top of the weed canopy (less than 4 inches) and increasing the spinner speed to obtain the correct swath width.

### EXPEDITE® GRASS & WEED II HERBICIDE APPLICATION GUIDE

#### SET-N-SPRAY SETTING

SPINNER TYPE	SPRAY SWATH WIDTH	WALKING SPEED			
		1.5 MPH	2.0 MPH	2.5 MPH	3.0 MPH
Spiral Spinner	<6"	A1	A1	A1	A2
	6"	A1	A1	A2	A3
	9"	A2	A3	A4	A5

	12"	A3	A5	B1	B3
Square Spinner	15"	A4	B1	B3	B4
	18"	A5	B3	B4	C1
	21"	B1	B4	C1	C3
Serrated Spinner	24"	B3	B5	C3	C5
	30"	C1	C5	D5	F1

The recommended rate in this guide represents 2.25 pounds acid equivalent glyphosate or 2.25 gallons of product per acre.

### How to Calibrate

1. Determine the proper Multi Flow™ units required from the following calibration guide. The number of Multi Flow units required is where the swath width row intersects the walking speed column. For example, for a 1.5 mph walking speed and a 12" swath width, 11 to 22 Multi Flow units are recommended. Use the lowest setting for easy-to-control weeds such as small annuals, and the highest setting for difficult-to-control weeds such as bermudagrass and field bindweed.
2. Before calibrating, the lance must be primed to remove trapped air. To prime the lance, set the head setting to G+ and depress the trigger until all air is removed from the lance. Priming must be done with the head of the lance held above the handle but below the level of the product container.
3. Remove the spinner and attach the Expedite calibration flow cup.
4. Lower the lance head to the spraying position, depress the trigger for 30 seconds and compare the measured volume to the desired Multi Flow units.
5. To remove the product from the calibration cup, raise the lance above head level and depress the trigger long enough to allow the product to flow back into the lance. Do not allow air to reenter the lance. If air enters the lance, it must be reprimed.
6. If required, adjust the head setting and repeat the process until the desired Multi Flow units are obtained.

7. When the desired head setting is obtained, remove the calibration cup and reattach the desired spinner and follow the instructions in the "HOW TO APPLY" section on how to spray this product.

**EXPEDITE® GRASS & WEED II HERBICIDE  
CALIBRATION GUIDE**

**30 SECOND MULTI FLOW™ MEASUREMENT\***

SPINNER TYPE	SPRAY SWATH WIDTH	WALKING SPEED			
		1.5 MPH	2.0 MPH	2.5 MPH	3.0 MPH
Spiral Spinner	<6"	4 to 7	5 to 10	6 to 1'	7 to 14
	6"	5 to 11	7 to 14	9 to 18	11 to 22
	9"	8 to 16	11 to 22	13 to 27	16 to 32
	12"	11 to 22	14 to 28	18 to 36	22 to 43
Square Spinner	15"	13 to 27	18 to 36	22 to 45	27 to 54
	18"	16 to 32	22 to 43	27 to 54	32 to 65
	21"	19 to 38	25 to 50	31 to 63	38 to 75
Serrated Spinner	24"	22 to 43	29 to 57	36 to 72	43 to 86
	36"	32 to 65	43 to 86	54 to 108	65 to 129

The rate range in this guide represents 1.5 to 3.0 pounds acid equivalent glyphosate or 1.5 to 3.0 gallons of product per acre.

\*One Multi Flow equals 0.8 milliliter.  
™Multi Flow is a trademark of Nomix, Plc.

**CROPPING SYSTEMS**

For crops listed in this section of this label, this product may be used as directed prior to the emergence of direct seeded crops, prior to transplanting of crops, in established groves, vineyards or orchards and for spot treatments as specified. For crops not listed, planting must be delayed for 30 days following an application.

This product does not provide residual weed control. For subsequent weed control, follow a program using residual herbicides or us repeat applications of this product. When using repeat applications of this product, do not exceed 2 applications per year in cropping systems or 3 applications per year in established groves, vineyards or orchards.

Unless otherwise directed in this label, do not harvest or feed treated crops for 8 weeks after application of this product. Allow 14 days following spot treatments before grazing domestic livestock or harvesting forage grasses and legumes.

When using this product prior to transplanting crops into plastic mulch, care must be taken to remove residues of this product from the plastic prior to transplanting. Residues can be removed by 1/2 inch of rainfall or irrigation.

**EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF HERBICIDE SOLUTION, SPRAY, DRIFT, OR MIST WITH FOLIAGE OR GREEN BARK OF TRUNK, BRANCHES, SUCKERS, FRUIT, OR OTHER PARTS OF TREES OR VINES. CONTACT OF THIS PRODUCT WITH OTHER THAN MATURE BROWN BARK CAN RESULT IN SERIOUS CROP DAMAGE.**

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**FIELD CROPS**

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This product can be used prior to the emergence of direct seeded crops or prior to transplanting of crops in the following list.

- |                    |                |
|--------------------|----------------|
| ALFALFA*           | KALE           |
| ARTICHOKE,         | LENTILS        |
| JERUSALEM          | LETTUCE        |
| ASPARAGUS          | LOGANBERRY     |
| ATEMOYA            | MELONS***      |
| BARLEY*            | MUSTARD GREENS |
| BEANS (ALL)        | OATS*          |
| BEEF GREENS        | OKRA           |
| BEETS (RED, SUGAR) | OLALLIEBERRY   |
| BLACKBERRY         | ONION          |
| BLUEBERRY          | PARSNIPS       |
| BOYSENBERRY        | PEANUTS        |
| BROCCOLI           | PEAS (ALL)     |
| CABBAGE            | PEPPER***      |

CARAMBOLA  
 CARROT  
 CAULIFLOWER  
 CELERY  
 CHICORY  
 CORN (ALL) \*  
 COTTON\*  
 CRANBERRY  
 CUCUMBER\*\*\*  
 CURRANT  
 DEWBERRY  
 ELDERBERRY  
 FORAGE GRASSES\*  
 FORAGE LEGUMES\*  
 GARLIC\*\*\*  
 GOOSEBERRY  
 GOURDS\*\*\*  
 HORSERADISH  
 HUCKLEBERRY

PINEAPPLE\*\*\*\*  
 POTATO (IRISH, SWEET)  
 PUMPKIN\*\*\*  
 RADISH  
 RASPBERRY (BLACK, RED)  
 RICE\*\*  
 RUTABAGA  
 SORGHUM (MILO) \*  
 SOYBEANS\*  
 SPINACH  
 SQUASH\*\*\* (SUMMER, WINTER)  
 SUGAR APPLE  
 TOMATILO\*\*\*  
 TOMATOES\*\*\*\*+  
 TURNIPS  
 WATERMELONS\*\*\*  
 WATERCRESS\*\*\*  
 WHEAT\*  
 YAMS

\*Spot treatments may be applied in these crops and must be made prior to heading of small grains and milo, initial pod set in soybeans, silking of corn and boll opening on cotton  
 \*\*Do not treat rice fields or levees when the fields contain flood water.  
 \*\*\*Apply only prior to planting. Allow at least 3 days between application and planting.  
 \*\*\*\*Do not feed or graze treated pineapple forage following application.  
 +Use is restricted to direct seeded crops only.

NOTE: This product is not registered in California for use on atemoya, carambola, sugar apples, yams and parsnips.

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**TREE CROPS**

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This product is recommended for weed control in established groves, vineyards, or orchards, or for site preparation prior to transplanting these crops as directed below.

CITRUS\*: citron, grapefruit, kumquat, lemon, lime, orange, tangelo, tangerine.

NUTS\*\*: almond, filbert, macadamia, pecan, pistachio, walnut.

POME FRUIT\*: apple, pear.

**STONE FRUIT\*\*\*:** apricots, cherries, nectarines, olives, peaches, plums/prunes. Remove suckers and low hanging limbs at least 10 days prior to application. Avoid application near trees with recent pruning wounds or other mechanical injury. Apply only near trees which have been planted in the orchard for 2 or more years. Cherries may be treated with this product in all states. Apricots, nectarines, peaches and plums/prunes may only be treated in the states of Arizona, California, Colorado, Idaho, Kansas, Kentucky, New Jersey, North Dakota, Oklahoma, Oregon, Texas, Utah, and Washington. If a spray shield is used and the application is made no later than 90 days after first bloom, this product may be used on peaches in the states of Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina and Tennessee. **EXTREME CARE MUST BE TAKEN TO ENSURE NO PART OF THE PEACH TREE IS CONTACTED BY THIS PRODUCT.**

**TROPICAL FRUIT:** acerola, atemoya\*, avocado\*, banana(plantains), carambola\*, coffee\*\*\*\*, figs\*, guava, mango\*, papaya, sugar apple\*, tea. Allow a minimum of 1 day between last application and harvest of guava and papaya. In coffee and banana, delay applications 3 months after transplanting to allow the new coffee or banana plant to become established.

- \*Allow a minimum of 14 days between last application and harvest.
- \*\*Allow a minimum of 21 days between last application and harvest.
- \*\*\*Allow a minimum of 17 days between last application and harvest.
- \*\*\*\*Allow a minimum of 28 days between last application and harvest.

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**VINE CROPS**

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**KIWI FRUIT\***

**GRAPES:**\* Any variety of table, wine, or raisin grape may be treated with this product. In the Great Lakes regions, applications must be made prior to the end of bloom stage of grapes to avoid injury.

\*Applications should not be made when green shoots, canes, or foliage are in the spray zone. Allow a minimum of 14 days between last application and harvest.

**Cleaning of Equipment**

The Expedite application equipment must be cleaned after each use and prior to storage. Use Expedite cleaner to remove residues of this product. To clean the lance, connect the lance to the cleaner box, set the head setting to G+ and let the cleaner flow until it runs clear. Disconnect the lance from the cleaner box and remove the remaining cleaner from the lance. Do not drain cleaner back into the box. Failure to properly clean the equipment may result in equipment failure or injury to subsequently treated desirable vegetation. After thorough cleaning, equipment may be used to apply other products, especially formulated for use in Expedite application equipment.

Wastes resulting from the use or cleaning of equipment that cannot be used or chemically reprocessed should be disposed of in accordance with applicable Federal, state or local procedures. See the "Storage and Disposal" section of this label for more information.

**WEEDS CONTROLLED**

When applied as recommended under the conditions described, this product provides control of many grasses and broadleaf weeds, including the following:

- Bahiagrass
- Barnyardgrass
- Bentgrass
- Bermudagrass\*
- Bindweed, field\*
- Bluegrass, annual
- Brome, downy
- Bromegrass, smooth
- Cheat
- Chickweed
- Clover: red, white
- Crabgrass
- Dallisgrass
- Dandelion
- Dock, curly
- Foxtail
- Geranium, Carolina
- Goosegrass
- Guineagrass
- Lambsquarters, common

- Fescues
- Johnsongrass
- Lettuce, prickly
- Mustard, tansy
- Nutsedge: purple, yellow
- Orchardgrass
- Quackgrass
- Pennycress, field
- Pigweed: redroot, smooth
- Ragweed, common
- Ryegrass: annual, perennial
- Sandbur, field
- Shepherdspurse
- Sowthistle
- Stinkgrass
- Thistle, Canada
- Timothy
- Vaseygrass

\*Partial control



**LIMIT OF WARRANTY AND LIABILITY**

This Company warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes set forth in the Complete Directions for Use ("Directions") when used in accordance with those Directions under the conditions described therein. NO OTHER EXPRESS WARRANTY OR IMPLIED WARRANTY OF FITNESS FOR PARTICULAR PURPOSE OR MERCHANTABILITY IS MADE. This warranty is also subject to the conditions and limitations stated herein.

Buyers and all users shall promptly notify this Company of any claims whether based in contract, negligence, strict liability, other tort or otherwise.

Buyer and all users are responsible for all loss or damage from use or handling which results from conditions beyond the control of this Company, including, but not limited to, incompatibility with products other than those set forth in the Directions, application to or contact with desirable vegetation, unusual weather, weather conditions which are outside the range considered normal at the application site and for the time period when the product is applied, as well as weather conditions which are outside the application ranges set forth in the Directions, application in any manner not explicitly set forth in the Directions, moisture conditions outside the moisture range specified in the Directions, or the presence of products other than those set forth in the Directions in or on the soil, crop or treated vegetation.

THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE LIMIT OF THE LIABILITY OF THIS COMPANY OR ANY OTHER SELLER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT (INCLUDING CLAIMS BASED IN CONTRACT, NEGLIGENCE, STRICT LIABILITY, OTHER TORT OR OTHERWISE) SHALL BE THE PURCHASE PRICE PAID BY THE USER OR BUYER FOR THE QUANTITY OF THIS PRODUCT INVOLVED, OR, AT THE ELECTION OF THIS COMPANY OR ANY OTHER SELLER, THE REPLACEMENT OF SUCH QUANTITY, OR, IF NOT ACQUIRED BY PURCHASE, REPLACEMENT OF SUCH QUANTITY. IN NO EVENT SHALL THIS COMPANY OR ANY OTHER SELLER BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES.

Buyer and all users are deemed to have accepted the terms of this LIMIT OF WARRANTY AND LIABILITY which may not be varied by any verbal or written agreement.

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EPA Reg. No. 524-450

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

MONSANTO COMPANY  
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ST. LOUIS, MISSOURI 63167 U.S.A.