



U.S. ENVIRONMENTAL PROTECTION AGENCY  
Office of Pesticide Programs  
Registration Division (H7505C)  
401 "M" St., S.W.  
Washington, D.C. 20460

EPA Reg. Number:  
228-434

Date of Issuance:  
NOV 19 2004

Term of Issuance:  
Conditional

Name of Pesticide Product:  
Prodiamine 65 WDG  
Herbicide

NOTICE OF PESTICIDE:

Registration  
 Reregistration

(under FIFRA, as amended)

Name and Address of Registrant (include ZIP Code):

Nufarm Americas Inc.  
1333 Burr Ridge Parkway, Suite 125A  
Burr Ridge, IL 60527

**Note:** Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is registered in accordance with FIFRA sec. 3(c) (7) (A) provided that you:

- 1. Add the phrase "EPA Registration No. 228-434" to the label before you release the product for shipment.

COMMENTS CONTINUED ON PAGE 2 OF THIS NOTICE OF REGISTRATION

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product under the enclosed stamped copy of the label constitutes acceptance of these conditions.

Joanne I. Miller  
Product Manager (23)  
Herbicide Branch  
Registration Division (7505C)

Signature of Approving Official:

/s/

Date:

NOV 19 2004

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EPA Reg. No. 228-434  
Comments Continued:

2. On the front panel of the labeling, delete the statement "Contains 4 pounds active ingredient per gallon".
3. On page 6, delete the descriptor "Nonselective" used to describe glyphosate-based products, or describe the meaning of this word as it relates to the referred products.
4. Resubmit the "Application for Pesticide" registration on EPA Form 8570-1, which has a completed Section III.
5. On page 12, correct the typographic error in the listing of states for "Poa Annu Control in Established Bermudagrass overseeded with Perennial Ryegrass (AZ, CA, NV and TX Only). Note the error in listing NV, the label states NY.
6. Submit one (1) copy of the final printed labeling and a revised "Application for Pesticide", as required in comment 4 above, before you release this product for shipment.
7. Submit and/or cite all data required for the registration of this product when the Agency requires all registrants of similar products to submit data; and submit acceptable responses required for reregistration of this product under FIFRA, section 4. A Stamped copy of the label is enclosed for your records.

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Enclosure

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# PRODIAMINE 65 WDG HERBICIDE

FOR PREEMERGENCE CONTROL OF GRASS AND BROADLEAF WEEDS IN:  
ESTABLISHED TURFGRASSES (EXCLUDING GOLF COURSE PUTTING  
GREENS), LAWNS, AND SOD NURSERIES; CONTAINER, FIELD-GROWN, AND  
LANDSCAPE ORNAMENTALS; HARDWOOD SEEDLING NURSERIES;  
ESTABLISHED PERENNIAL AND WILDFLOWER PLANTINGS; CHRISTMAS  
TREE FARMS; AND PLANTS GROWN FOR CUT FOLIAGE PRODUCTION  
(FLORIDA ONLY).

**ACCEPTED  
with COMMENTS  
In EPA Letter Dated:**

NOV 19 2004  
Under the Federal Insecticide,  
Fungicide, and Rodenticide Act  
as amended, for the pesticide  
registered under EPA Reg. No.

228-434

**ACTIVE INGREDIENT:**

Prodiamine (CAS NO. 29091-21-2) ..... 65.0%

**OTHER INGREDIENTS:** ..... 35.0%

**TOTAL:** ..... 100.00%

Contains 4 pounds active ingredient per gallon.

**KEEP OUT OF REACH OF CHILDREN  
CAUTION - CAUCION**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.  
(If you do not understand the label, find someone to explain it to you in detail.)

**SEE INSIDE BOOKLET FOR FIRST AID AND ADDITIONAL PRECAUTIONARY STATEMENTS**

For Chemical Spill, Leak, Fire, or Exposure, Call CHEMTREC (800) 424-9300  
For Medical Emergencies Only, Call (877) 325-1840

NOTE: Spanish language is optional

EPA REG. NO. 228-  
EPA EST. NO. 228-IL-1

MANUFACTURED BY  
NUFARM AMERICAS INC.  
BURR RIDGE, IL 60527-0866



NET CONTENTS    POUNDS

000228-00000.102604.P4FLH

**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS AND DOMESTIC ANIMALS  
CAUTION - CAUCION**

Harmful if inhaled or absorbed through the skin. Avoid contact with skin, eyes, or clothing. Avoid breathing dust. Prolonged or frequently repeated skin contact, while mixing or handling the concentrated material, may cause allergic reactions in some individuals.

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

**WPS Uses:** Mixers, loaders, and applicators and other persons who handle this pesticide for any use covered by the Worker Protection Standard (40 CFR part 170) (in general, agricultural-plant uses are covered) must wear: long-sleeved shirt, long pants, waterproof gloves, and shoes plus socks.

**NON-WPS Uses:** Mixers and loaders who handle this pesticide for any use NOT covered by the Worker Protection Standard (40 CFR part 170) - in general, only agricultural-plant uses are covered by the WPS - must wear: waterproof gloves.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

**Engineering Control Statements:** When handlers use closed systems or enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

<b>USER SAFETY RECOMMENDATIONS</b>	
<b>Users Should:</b>	
<ul style="list-style-type: none"> <li>• Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.</li> <li>• Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.</li> <li>• After handling this product, immediately wash the outside of gloves before removing them, then remove gloves and all other PPE.</li> <li>• Immediately wash thoroughly and change into clean clothing.</li> </ul>	

<b>FIRST AID</b>	
<b>IF SWALLOWED</b>	<ul style="list-style-type: none"> <li>• Call poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to do so by the poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
<b>IF ON SKIN OR CLOTHING</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15 to 20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>IF EYES</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15 to 20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>IF INHALED</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>
<b>HOT LINE NUMBER</b>	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-877-325-1840 for emergency medical treatment information.	

**ENVIRONMENTAL HAZARDS**

This product has low solubility in water. At the limit of solubility, this product is not toxic to fish. However, at concentrations substantially above the level of water solubility, it may be toxic to fish. Do not apply directly to water, to 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 aquatic organisms in adjacent sites. Do not contaminate water when disposing of equipment wash water.

**DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. **READ ENTIRE LABEL BEFORE USING THIS PRODUCT. USE STRICTLY IN ACCORDANCE WITH LABEL PRECAUTIONARY STATEMENTS AND DIRECTIONS.**

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

**AGRICULTURAL USE REQUIREMENTS**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about Personal Protective Equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours. Exception: If the product is soil-injected or soil-incorporated, the Worker Protection Standard under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is: coveralls, waterproof gloves, shoes plus socks.

**GENERAL INFORMATION**

**WHERE TO USE**

This product is a preemergence herbicide that provides residual control of many grass and broadleaf weeds in:

- Established turfgrasses (excluding golf course putting greens), lawns, and sod nurseries, and in container, field grown, and landscape ornamentals
- Hardwood seeding nurseries and established perennial and wildflower plantings
- Plants grown for cut foliage production
- Christmas tree farms

**HOW THIS PRODUCT WORKS**

This product controls susceptible weeds by preventing growth and development of newly germinated weed seeds. Weed control is most effective when this product is activated by at least 0.5 inch of rainfall or irrigation or shallow incorporation (1 to 2 inches) before weed seeds germinate and within 14 days following application.

**USE PRECAUTIONS**

1. Do not graze or feed livestock forage cut from areas treated with this product.
2. Follow all applicable directions, restrictions, and precautions on the labels of EPA-registered tank mix partners.
3. Do not blend this product onto dry fertilizer or any other granular material.
4. Chemigation: Do not apply this product through any type of irrigation system unless instructed otherwise in this label.
5. Do not apply aerially.
6. Do not apply to golf course putting greens.

**MIXING AND APPLICATION**

**MIXING**

This product must be mixed thoroughly in the spray tank to ensure uniform application. Follow these steps:

1. Fill the spray tank 1/4 full with clean water or fluid fertilizer only.
2. Start agitation and check to ensure it is working properly.
3. Add this product directly into the tank.
4. Add the rest of the carrier to obtain the final spray volume.
5. A spray colorant may be used with this product to mark areas as they are treated. This will improve application accuracy by minimizing swath skips and overlaps.
6. Maintain vigorous agitation in the spray tank before and during the application. This will ensure a well-mixed spray suspension.
7. Do not allow spray suspension to dry in the tank. Thoroughly clean the sprayer after use by flushing the system with water containing a detergent. Refer to the **Pesticide Disposal** section of this label for waste disposal.

**TANK MIXING THIS PRODUCT**

This product may be tank mixed with certain other EPA-registered herbicides to provide a broader spectrum of weed control or to control emerged weeds. Refer to the specific directions for use for tank mix partners, and consult the label(s) of the individual tank mix partners(s) for use rate, application timing, weeds controlled, and specific precautions and/or restrictions. Tank mixes are permitted only in states where the tank mix partners(s) are registered for the application site and the turf and ornamental species listed. When using this product in a tank mixture with other pesticides, observe the most restrictive label limitations and precautions on the labels of the products used.

Before tank mixing pesticides, it is advisable to test compatibility by mixing the products in a small container first. See the **Compatibility Test** section.

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### COMPATIBILITY TEST

Before mixing this product with other pesticides in the spray tank, test for compatibility by mixing all components (carrier and pesticide products) in a small container in proportionate quantities. For example, a 1 quart jar would be 1/100 the volume of a 25 gallon/Acre spray rate. At 1 pound/Acre, the product rate would be proportional to 4.5 gram per quart. Add approximately 1.5 teaspoons to a quart of water. Calculate amounts for the other products based on rate per acre. An approximate volume would be 1.5 teaspoons for each pound/Acre of a dry formulation and 0.5 teaspoons for each pint/Acre of a liquid formulation. (See following table.)

#### AMOUNT OF COMPONENT TO ADD TO ONE QUART OF SPRAY CARRIER (Assuming Carrier Volume of 25 gallons/Acre)

COMPONENT FORMULATIONS	RATE PER		LEVEL TEASPOONS
	ACRE	1,000 SQ. FT.	
This Product	1.0 lb.	0.4 oz.	1.5
Dry Tank Mix Partner	1.0 lb.	0.4 oz.	1.5
Liquid Tank Mix Partners	1.0 pt.	0.4 oz.	0.5

If components do not ball-up or form flakes, sludge, gels, oily films, or layers, then the mixture is compatible. Incompatibility will usually occur within 5 minutes after mixing. If components are not compatible, use a compatibility agent and rerun the test to determine if the mixture is suitable. If the components are still not compatible, do not tank mix.

### MIXING ORDER FOR TANK MIXTURES

**Notes:** (1)When mixing this product with other components (carrier and partner pesticide products), allow products to completely dissolve between steps. This is key when tank mixing with ester formulations. (2)Maintain agitation throughout mixing and application of the mixture.

**Add the products to the spray tank in the following order:**

1. Add products packaged in water-soluble bags first. Agitate the tank mixture. Allow the water-soluble bags to completely dissolve and the products to disperse before adding any other tank mix partners.
2. Then add water-dispersible granules (WDG or WG formulations) and wettable powders (WP formulations). Add wettable powders to the tank as agitation continues. Allow the product to disperse completely before other products are added.
3. Add spray adjuvants and spray markers. Read the adjuvant's label first and use only those adjuvants approved for application to turf and ornamentals.
4. Add flowable liquids (FL) or suspension concentrates (SC).
5. Add emulsifiable concentrates (EC) last.

### APPLICATION

Apply this product in a minimum of 20 gallons/acre (0.5 gallon/1,000 sq. ft.) of carrier (water and/or fluid fertilizer) using a calibrated, low-pressure sprayer with 50-mesh or coarser screens. A broadcast boom or handheld wand designed for herbicide or insecticide application will provide the best results. Select nozzle pressure and gallonage to provide complete coverage.

### USE DIRECTIONS

#### CONTAINER, FIELD-GROWN, AND LANDSCAPE ORNAMENTAL PLANTINGS (INCLUDING CHRISTMAS TREE FARMS)

##### Application, timing, and information

This product:

1. Will not control emerged weeds.
2. May be applied to newly-transplanted and established ornamentals as a broadcast or over-the-top spray.
3. Is most effective when applied to soil free of clods, weeds, and debris such as leaves and mulch.
4. Is most effective when the product is activated in the soil before weed seeds germinate and within 14 days after application.
5. Is activated when the treated area receives at least 0.5 inch of irrigation or rainfall, or shallow (1 to 2 inches) mechanical incorporation.

##### Use Precautions

##### To reduce injury potential:

- a. In the spring when buds are rapidly growing and expanding, over-the-top application of this product may temporarily injure new growth of desirable plants. To reduce the possibility of injury at this time, wait to apply this product over the top of newly emerged vegetation until it has hardened off, unless your experience indicates that the ornamental plant will not be injured by the over-the-top application.
- b. After application immediately irrigate the treated area to wash this product from plant surfaces onto soil (watering the foliage of plants before application may improve the washing process).

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**ORNAMENTALS AND CHRISTMAS TREE FARMS - APPLICATION SITES AND INSTRUCTIONS**

SITE	APPLICATION INSTRUCTIONS
Newly-Transplanted Container or Field Nursery Stock	1. Delay application until soil has settled around transplants. 2. Water transplants thoroughly before application. 3. Apply after cuttings form roots and are established. 4. To avoid inhibition of the tissue union, apply before budding/grafting or after buds/grafts have taken.
Established Container, Field Nursery Stock, or Landscape Plants	Apply at any time as a broadcast, over-the-top, or directed spray.
Landscape (or Ornamental) Plantings	1. Apply as a broadcast, over-the-top, or as a directed spray. 2. Delay applications to newly transplanted ornamentals until soil has settled around transplants.
Bare Ground Application for Container Placement	1. Apply to soil (including mulch, gravel, wood chips, or other permeable base), upon which containerized ornamentals are placed. 2. After this product is applied, perform shallow cultivation or hand weeding only, to avoid disturbing the herbicide barrier.
In Shade Houses and Uncovered Polyhouses	After this product is applied, uncovered polyhouses must remain open for at least 7 days and ornamentals must receive 2 irrigations totalling at least 1/2 inch of water.
Ornamental Bulbs and Perennial Wildflower Plantings	1. This product may be applied to bulbs or perennial wildflower species listed in the section. <b>Tolerant Ornamentals Species.</b> 2. Apply before or after bulbs emerge but before bulbs bloom and weeds emerge. In wildflowers, a postemergence herbicide labeled for wildflowers may be needed to control weeds that have already emerged.

**HOW MUCH OF THIS PRODUCT AND WHEN TO APPLY - ORNAMENTALS**

AMOUNT TO APPLY (BROADCAST)*	WHEN TO APPLY	COMMENTS/INSTRUCTIONS
1.0-2.3 pounds/Acre or 0.37-0.83 ounces/1,000 sq. ft.	In fall or spring before weeds germinate or after weeds are removed.	1. Use the higher rate for longer control. 2. This product may be applied more than once per year as long as the total amount of product applied does not exceed 2.3 pounds/Acre per year.

\*NOTE: For band application, calculate amount per acre:

$\frac{\text{Band width in inches}}{\text{Row width in inches}} \times \text{broadcast rate} = \text{amount to apply/acre of field}$

**EQUIVALENT MEASUREMENTS FOR THIS PRODUCT**

POUNDS/ACRE	OUNCES/1,000 SQ. FT.	APPROXIMATE EQUIVALENT - TABLESPOONS/1,000 SQ. FT.
1.0	0.37	1
1.5	0.55	1.5
2.0	0.74	2
2.3	0.83	2.25

**TANK MIXTURES FOR USE ON ORNAMENTALS**

This product may be tank mixed with other registered herbicides listed on this label to provide a broader spectrum of weed control or to control emerged weeds. Tanks mixes with this product are for use only in states where the tank mix partner(s), application site and intended use pattern ar registered. Follow the label(s) directions of the tank mix partner(s) for application rates, timing, weeds controlled, tolerant ornamentals, and specific use precautions and/or restrictions. Before mixing pesticides in the spray tank, test compatibility by mixing the products in a small container first. See the **Compatibility Test** section of this label.

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**TANK MIX PARTNERS FOR THIS PRODUCT ON ORNAMENTALS**

PRODUCT	PRECAUTIONS/INSTRUCTIONS
Goal* (use on conifers only)	Mix with this product for postemergence control of certain broadleaf weeds including malva and filaree.
Gallery*, Sim-Trol*, Pennant*	See product labels for weed spectrum and tolerant ornamentals.
Roundup*, Razor*, Credit* or other glyphosate-based products.	These nonselective tank mix herbicides control many emerged annual broadleaves and grasses. Take extreme care to prevent tank mixtures with these partner products from contacting the foliage and stems of turfgrass, trees, shrubs, or other desirable vegetation because desirable vegetation may be severely injured or killed. Apply these tank mixtures as a directed spray and use a shield to prevent spray from contacting foliage of desirable plants. Following instructions on the tank mix partner's label, delay irrigation of the treated area to allow time for the herbicide to be absorbed by weed foliage.

\*Roundup is one brand of a nonselective herbicide containing glyphosate. Other glyphosate products may also be used.

**TOLERANT ORNAMENTAL SPECIES**

This product will not harm most trees, shrubs, vines, and flowers. The species listed below in Table 1 are tolerant to Prodiamine. This product is approved for applications, except in CA, to the species in Table 2. This product may be applied over the top of the listed species.

When plants are under stress (such as heat, drought, or frost damage), some cultivars of listed plants may be sensitive to this product.

**Table 1. Tolerant Ornamental Species - All States**

<u>Common Name</u>	<u>Scientific Name</u>	<u>Common Name</u>	<u>Scientific Name</u>
Aleppo Pine	<i>Pinus halepensis</i>	English Laurel	<i>Prunus laurocerasus</i>
Almond, Apricot, Nectarine, Peach, Plum and Prune*	<i>Prunus</i> spp.	False Cypress	<i>Chamaecyparis pisifera</i>
American Arborvitae	<i>Thuja occidentalis</i>	Feathery Cassia	<i>Cassia artemisioides</i>
American Dogwood	<i>Cornus stolonifera</i>	Firethorn	<i>Pyracantha fortuneana</i>
American Holly	<i>Ilex opaca</i>	Firethorn	<i>Pyracantha koidzumii</i>
Amur Privet	<i>Ligustrum amurense</i>	Firethorn Scarlet	<i>Pyracantha coccinea</i>
Austrian Black Pine	<i>Pinus nigra</i>	Formosa	<i>Rhododendron (including Azalea)</i>
Avocado*	<i>Persea americana</i>	Flowering Dogwood	<i>Cornus florida</i>
Barberry	<i>Berberis gladywensis</i>	Fralser's Photinia (Redtip)	<i>Photinia fraseri</i>
Bearberry Cotoneaster	<i>Cotoneaster dammeri</i>	Gardenia, Cape-Jasmine	<i>Gardenia jasminoides</i>
Big Blue Lillyturf	<i>Liriope muscari</i>	Gladiolus species**	<i>Gladiolus</i> spp.
Border Forsythia	<i>Forsythia intermedia</i>	Glossy Privet (Wax-Leaf)	<i>Ligustrum lucidum</i>
Bradford Pear	<i>Pyrus</i> spp.	Grape*	<i>Vitis</i> spp.
Calabrian Pine	<i>Pinus brutia</i>	Greenstem Forsythia	<i>Forsythia viridissima</i>
Canada Hemlock	<i>Tsuga canadensis</i>	Hawthorne	<i>Crataegus</i> spp.
Canary Island Pine	<i>Pinus canariensis</i>	Heavenly Bamboo	<i>Nandina domestica</i>
Canary Island Viburnum	<i>Viburnum rigidum</i>	Hino-crimson	<i>Rhododendron (including Azalea)</i>
Cape Weed	<i>Arctotheca calendula</i>	Holly	<i>Ilex pernyi</i>
Chinese Hibiscus**	<i>Hibiscus Rosa-sinensis</i>	Hop bush	<i>Dodonea viscosa</i>
Chinese Holly**	<i>Ilex cornuta</i>	Hottentot Fig (Ice Plant)	<i>Carpobrotus edulis</i>
Chinese Juniper	<i>Juniperus chinensis</i>	Ice Plant	<i>Malephora luteola</i>
Citrus species*	<i>Citrus</i> spp.	Indian Hawthorne	<i>Raphiolepis indica</i>
Cleyera	<i>Cleyera japonica</i>	Iris species**	<i>Iris</i> spp.
Corel Bells	<i>Raphiolepis indica</i>	Italian Cypress	<i>Cupressus sempervirens</i>
Cotoneaster	<i>Cotoneaster buxifolius</i>	Japanese Aralia	<i>Fatsia japonica</i>
Crabapple*	<i>Malus</i> spp.	Japanese Aucuba	<i>Aucuba japonica</i>
Cranberry Bush	<i>Viburnum trilobium</i>	Japanese Barberry	<i>Berberis thunbergii</i>
Cranberry Cotoneaster	<i>Cotoneaster apiculatus</i>	Japanese Black Pine	<i>Pinus thunbergiana</i>
Grape Myrtle	<i>Lagerstromia indica</i>	Japanese Boxcherry	<i>Syzygium paniculatum</i>
Creeping Juniper	<i>Juniperus horizontalis</i>	Japanese Boxwood	<i>Buxus microphylla</i>
Douglas Fir**	<i>Pseudotsuga menziesii</i>	Japanese Holly	<i>Ilex crenata</i>
Dwarf Periwinkle	<i>Vinca minor</i>		
Eastern White Pine	<i>Pinus strobus</i>		
English Ivy	<i>Hedera helix</i>		

\*Do not use on food producing trees, vines, or plants.

\*\*Not for use on container grown plants



**Table 1. Tolerant Ornamental Species - All States (continued)**

<u>Common Name</u>	<u>Scientific Name</u>	<u>Common Name</u>	<u>Scientific Name</u>
Japanese Honeysuckle	<i>Lonicera japonica</i>	Roseum Elegans	<i>Rhododendron</i> (including Azalea)
Japanese Maple	<i>Acer palmatum</i>	Scotch Heather	<i>Calluna vulgaris</i>
Japanese Pittosporum	<i>Pittosporum tobira</i>	Scotch Pine	<i>Pinus sylvestris</i>
Japanese Privet	<i>Ligustrum japonicum</i>	Shrimp Plant	<i>Justicia brandegeana</i>
Japanese Snowball	<i>Viburnum plicatum</i>	Silverberry	<i>Elaeagnus pungens</i>
Japanese Spindle Tree (Evergreen Euonymus)	<i>Euonymus japonica</i>	Slash Pine	<i>Pinus elliotii</i>
Japanese Viburnum	<i>Viburnum japonicum</i>	Spanish Bayonet	<i>Yucca aloifolia</i>
Japanese Yew	<i>Podocarpus macrophyllus</i>	Spreading Euonymus	<i>Euonymus kiautschovicka</i>
Japanese Yew	<i>Taxus cuspidata</i>	Sourwood	<i>Oxydendrum arboreum</i>
Kiwi*	<i>Actinidia chinensis</i>	Star Jasmine	<i>Trachelospermum asiaticum</i>
Lady Bank's Rose	<i>Rosa banksiae</i>	Stonecrop	<i>Sedum album</i>
Laurustinus	<i>Viburnum tinus</i>	Shore Juniper	<i>Juniperus conferta</i>
Leatherleaf Fern	<i>Rumohra adiantiformis</i>	Spruce species** (Colorado Blue, Norway, etc.)	<i>Picea</i> spp.
Leatherleaf Viburnum	<i>Viburnum wrightii</i>	Sweet Viburnum	<i>Viburnum odoratissimum</i>
Lily-of-the-Nile (African Lily)	<i>Agapanthus africanus</i>	Tatarian Honeysuckle	<i>Lonicera tatarica</i>
Lily-of-the-Valley Shrub	<i>Pieris japonica</i>	Trailing African Daisy	<i>Osteospermum fruticosum</i>
Loblolly Pine	<i>Pinus taeda</i>	Tulip species	<i>Tulipa</i> spp.
Longleaf Pine	<i>Pinus palustris</i>	Vinca	<i>Vinca major</i>
Magnolia species**	<i>Magnolia</i> spp.	Vine Hill Manzanita	<i>Arctostaphylos densiflora</i>
Mentor Barberry	<i>Berberis mentorensis</i>	Virginia Pine	<i>Pinus virginiana</i>
Mondo Grass**	<i>Ophiopogon japonicus</i>	Walnut*	<i>Juglans</i> spp.
Monterey Pine	<i>Pinus radiata</i>	Warty Barberry	<i>Berberis verruculosa</i>
Narcissus species**	<i>Narcissus</i> spp.	Weeping Bottlebrush	<i>Callistemon viminalis</i>
Norway Maple	<i>Acer platanoides</i>	White Trailing Ice Plant	<i>Delosperma alba</i>
Old Fashioned Weigela	<i>Weigela florida</i>	Wild Lilac	<i>Ceanothus rigidus</i>
Oleander	<i>Nerium</i> spp.	Winter Jasmine	<i>Jasminium nudiflorum</i>
Olive*	<i>Olea europaea</i>	Wintercreeper	<i>Euonymus fortunei</i>
Pampas Grass	<i>Cortaderia selloana</i>	Wintergreen Barberry	<i>Berberis julianae</i>
Pistachio*	<i>Pistacia</i> spp.	Yaupon Holly	<i>Ilex vomitoria</i>
PJM	<i>Rhododendron</i> (including Azalea)	Yew	<i>Taxus media</i>
Queensland Pittosporum	<i>Pittosporum rhombifolium</i>	Yucca, Adam's Needle	<i>Yucca filamentosa</i>
Red Oak	<i>Quercus rubra</i>		
Rockspray Cotoneaster	<i>Cotoneaster microphyllus</i>		
Rose of Sharon**	<i>Hibiscus</i>		
Rosemary*	<i>Rosmarinus officinalis</i>		

\*Do not use on food producing trees, vines, or plants.

\*\*Nor for use on container grown plants

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Table 2. Tolerant Ornamental Species/Varieties - All States Except CA

<u>Common Name</u>	<u>Scientific Name</u>	<u>Common Name</u>	<u>Scientific Name</u>
Abelia: Sherwood	<i>Abelia grandiflora</i>	Japanese Anemone	<i>Anemone hybrida</i>
Aquilegia: Red and Gold	<i>Aquilegia</i> spp.	Lady Fern; Fern Lady	<i>Athyrium filix-femina</i>
Arrowood Viburnum	<i>Viburnum suspensum</i>	Lady's Leek, Nodding Onion	<i>Allium cernuum</i>
Aster: Bonny Blue, Purple Dome	<i>Aster</i> spp.	Larkspur; Blue Elf	<i>Delphinium</i> spp.
Australian Brushcherry	<i>Aster X frikartii</i>	Lavender; Munstead	<i>Lavender</i> spp.
Baby's Breath	<i>Syzygium paniculatum</i>	Lily: Jazz	<i>Lilium</i> spp.
Bigleaf Hydrangea	<i>Gyposophila repens</i>	Lily of the Nile	<i>Agapanthus orientlis</i>
	<i>Hydrangea macrophylla</i>	Liriope, Creeping	<i>Liriope spicata</i>
	<i>Inula ensifolia</i>	Liriope, Variegated	<i>Liriope muscari</i> var. <i>variegata</i>
Black-Eyed Susan: Goldstrum	<i>Rudbeckia</i> spp.		<i>Lythrum</i> spp.
Bougainvillea	<i>Bougainvillea</i> spp.	Loosestrife; Modern Pink	<i>Crocsmia</i> spp.
Burgundy	<i>Loropetalum chinense</i>	Lucifer	<i>Hibiscus</i> spp.
Butterfly-Bush (Dwarf Blue); Royal Red	<i>Buddleia davidii</i>	Mallow; Disco Belle White	<i>Thalictrum dipterocarpum</i>
Cardinal Flower, Indian Pink	<i>Lobelia cardinalis</i>	Meadow Rue	<i>Quercus shumardii</i>
Cheddar Pink	<i>Dianthus gratianopolitanus</i>	Oak, Shumard's Red	<i>Osmanthus heterophyllus</i>
Chinese Privet; Variegata	<i>Ligustrum sinense</i>	Osmanthus (False Holly): Gulf Tide	
Columbine; Red and Gold	<i>Aquilegia</i> spp.	Parsoni	<i>Juniperus davurica</i>
Coneflower, Purple; Magnus	<i>Echinacea purpurea</i>	Pincushion Flower	<i>Scabiosa</i> spp.
Cooperi Pink	<i>Delosperma</i> spp.	Saxifrage; Purple Dome	<i>Saxifraga</i> spp.
Corat Bell; Bridget Bloom	<i>Heucherella</i> spp.	Siberian Iris; Cabernet	<i>Iris sibirica</i>
Coreopsis (Calliopsis): Early Sunrise, Moonbeam	<i>Coreopsis</i> spp.	Snowbank	<i>Boltonia asteroides</i>
Cransbill	<i>Geranium cinereum</i>	Spirea: Anthony Waterer	<i>Spiraea bumalda</i>
Crape Myrtle; Tuscarora	<i>Lagerstromia indica x fauriei</i>	Stonecrop	<i>Sedum dasyphyllum</i>
Crimson Bottlebrush	<i>Callistemon citrinus</i>	Stonecrop; Dragon's Blood	<i>Sedum spurium</i>
Daylily: Aztec Gold, Stella De Oro, Tender Love	<i>Hemerocallis</i> spp.	Stonecrop; Lidakense	<i>Sedum cauticola</i>
Delaware Valley White	<i>Rhododendron (including Azalea)</i>	Sunrose	<i>Helianthemum</i> spp.
	<i>Dianthus deltoides</i>	Sword-Leaved Iris; Jodlesong	<i>Iris ensata</i>
Dianthus, Maiden Pinks Zing	<i>Physostegia virginiana</i>	Trumpet Creeper, Trumpet Flower Madame Galen	<i>Campis X tagliabuana</i>
Dragonhead, False; Vivid	<i>Leontopodium alpinum</i>		<i>Ceratostigma plumbaginoides</i>
Edelweiss	<i>Oenothera missouriensis</i>	Tree Peony	<i>Chrysanthemum nipponicum</i>
Evening Primrose	<i>Rhododendron (including Azalea)</i>	Tussock Bellflower; (White Clips)	<i>Paeonia suffruticosa</i>
Flame Creeper	<i>Begonia</i> spp.	Veronica, Speedwell; Sunny Bcder	<i>Campanula carpatica</i>
Fibrous Begonia: Hardy Grandis	<i>Bergenia cordifolia</i>	Wakeiebisu	<i>Veronica</i> spp.
Fountain Grass (Dwarf)**	<i>Pennisetum setaceum</i>		<i>Rhododendron (including Azalea)</i>
	<i>perovskia atriplicifolia</i>	Weeping Forsythia	<i>Forsythia sypensa</i>
Five-Leaf or Chocolate Vine	<i>Akebia quintata</i>	Weeping Lantana	<i>Lantana montevidensis</i>
Gaillardia, Blanket Flower: 'Goblin'	<i>Gaillardia</i> spp.	White Gumpo	<i>Rhododendron (including Azalea)</i>
Gentian	<i>Gaura</i> spp.		<i>Artemisia</i> spp.
George L. Tabor	<i>Gentiana daturica</i>	Wormwood; Silver Mound, Castle	
	<i>Rhododendron (including including Azalea)</i>	Yaku Jima**, Silberfeder**	<i>Miscanthus sinensis</i>
Germander	<i>Teucrium</i> spp.	Yarrow: King Edward	<i>Achillea</i> spp.
Girard Crimson	<i>Rhododendron (including Azalea)</i>		<i>Agapanthus orientalis</i>
	<i>Lagerstromia indica x fauriei</i>	Yedda Hawthorne	<i>Raphiolepis umbellata</i>
Grape Myrtle; Tuscarora	<i>Hosta sieboldiana</i>		
Hosta, 'Searsucker'	<i>Houttuynia cordata</i> var. <i>variegata</i>		
	<i>Hosta plantaginea</i>		
Hosta, Plantain Lily (Fragrant)			

\*Do not use on food producing trees, vines, or plants.

\*\*Not for use on container grown plants.

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### NEW PLANTINGS, REPLANTING AND ROTATIONAL PLANTINGS

Nursery, landscape, or non-cropped land areas treated with this product should be rotated only to ornamental species listed on this label for 1 year following application unless the following test has shown species safety:

Before planting a species not listed on this label, it is recommended that several test strips of an indicator plant such as wheat, sorghum or corn be sown into the treated area. If the indicator plants germinate and grow normally to a height of 12 inches with normal root development, it is safe to plant.

In areas disturbed by new plantings or replanting of labeled species, it may be necessary to retreat exposed soil to maintain satisfactory weed control.

Do not exceed a dosage of 1.5 pounds a.i./Acre, (2.3 pounds/Acre of this product) per year.

### ESTABLISHED TURF

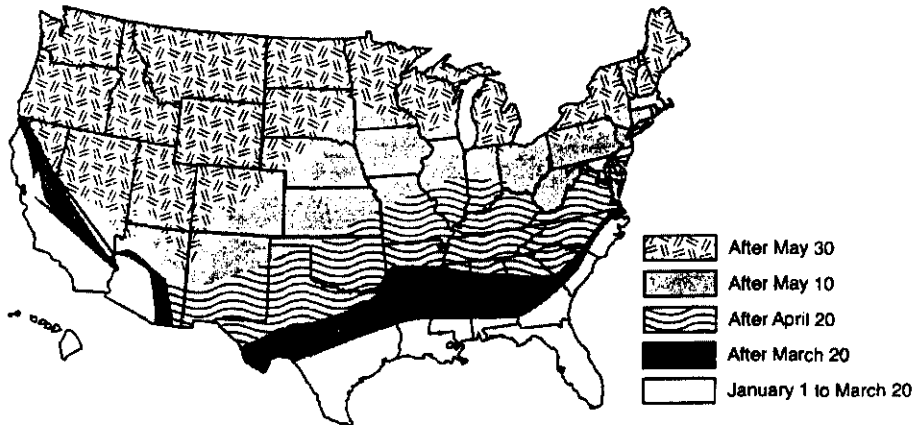
This product is a preemergence herbicide that, when properly applied, will control certain grass and broadleaf weeds in established turfgrasses including:

- Golf courses **excluding** putting greens
- Lawns
- Sod nurseries

The maximum amount of this product that may be applied per year is given for each turfgrass species in the **Annual Use Rates** section of this label.

For optimum weed control, this product should be activated by at least 0.5 inch of rainfall or irrigation before weed seeds germinate and within 14 days following application. See the map below for approximate crabgrass seed germination dates.

### CRABGRASS SEED GERMINATION DATES



### USE PRECAUTIONS - TURFGRASS

1. Do not apply this product to areas where dichondra, colonial bentgrass, velvet bentgrass or annual bluegrass (*Poa annua*) are desirable species.
2. Do not cut (harvest) treated sod before 90 days after application. To avoid turfgrass injury, do not apply to newly set sod until the sod has rooted and exposed edges have filled in.
3. To avoid turfgrass injury do not apply this product to turf stressed by conditions such as drought, low fertility, or pest damage.
4. Disturbing the herbicide barrier with cultural practices such as disking may result in reduced weed control.
5. **Do not apply this product to golf course putting greens.**
6. If the depth of the creeping bentgrass root system becomes shallow and root tips contact this product - treated soil, new root formation may be inhibited. Mowing height can affect the depth of a plant's root system. To avoid this, do not apply this product to creeping bentgrass less than 0.5 inch in height.

### APPLICATION TIMING AND RATE - TURFGRASS

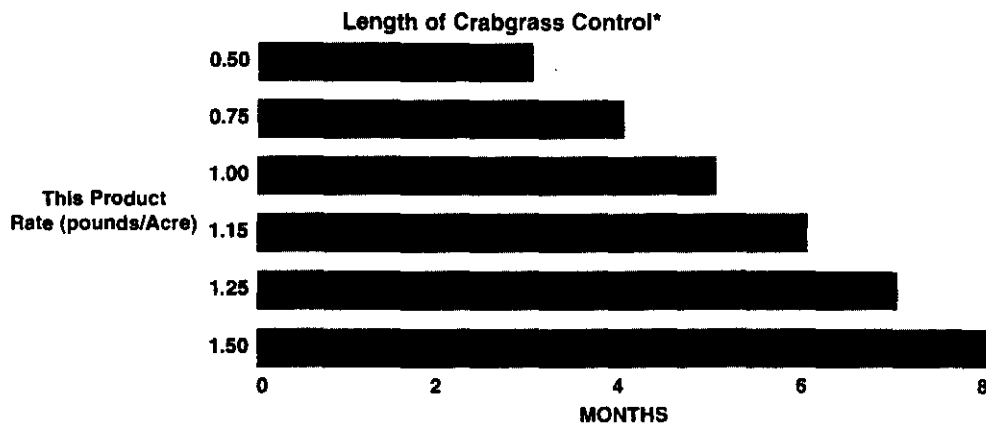
This product may be applied as a single application or in sequential applications to control weeds germinating throughout the year. All applications should be made before target weeds germinate.

**This product will not control weeds that have already emerged.**

The amount of this product to apply depends upon:

1. the length of residual weed control desired (the higher the application rate, the longer the control),
2. the turf species, and
3. the maximum amount which can be applied to the turf species per calendar year.

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\*Length of control varies by region. This table is an average for planning purposes.

**ANNUAL USE RATES - TURFGRASS**

This product can be applied to the turfgrass species listed in the following table. Do not apply more than the highest rate listed for each species in a calendar year.

**Table 1. MAXIMUM APPLICATION RATE OF THIS PRODUCT PER CALENDAR YEAR BY TURF SPECIES<sup>1</sup>**

TURF SPECIES	OUNCES PRODUCT/ACRE	OUNCES PRODUCT/1,000 SQ. FT.
Bermudagrass <sup>2</sup>		
Bahiagrass		
Centipedegrass		
Kikuyugrass	1.0-2.30 <sup>1</sup>	0.36-0.83
Seashore Paspalum		
St. Augustinegrass <sup>3</sup>		
Tall Fescue (including turf-type)		
Zoysiagrass		
Buffalograss		
Kentucky Bluegrass	0.6-1.50 <sup>1</sup>	0.185-0.55
Perennial Ryegrass		
Fine Fescue	0.5-1.15 <sup>1</sup>	0.185-0.42
Creeping Bentgrass (0.5 inch or more in height) <sup>4</sup>	0.5-1.00 <sup>1</sup>	0.185-0.37

- 1 This product may be applied more than once a year as long as the total amount applied is not greater than the maximum application rate for each turf species. All applications must be made before weed seeds germinate.
- 2 May be used on newly sprigged or plugged Bermudagrass at rates not to exceed 0.80 pounds/Acre (0.30 ounce/1,000 sq. ft.). Newly sprigged or plugged Bermudagrass stolon rooting may be temporarily inhibited.
- 3 Use an initial rate of 0.75-1.5 pounds/Acre per application.
- 4 To avoid grass injury, do not apply this product to creeping bentgrass mowed at less than 0.5 inch in height.

**WEEDS CONTROLLED**

When used as directed in this label, this product will control the following weeds:

Barnyardgrass	Kochia
Bluegrass, Annual ( <i>Poa annua</i> ) <sup>1</sup>	Lambsquarters, Common
Carpet weed	Lovegrass
Chickweed, Common <sup>2</sup>	Panicum, (Texas, Fall, Browntop)
Chickweed, Mouseear (from seed)	Pigweed
Crabgrass (Large, Smooth) <sup>3</sup>	Purslane, Common
Crowfootgrass	Pusley, florida
Cupgrass, Woolly	Rescuegrass <sup>4</sup>
Foxtails, Annual	Shepherds Purse <sup>2</sup>
Goosegrass <sup>5</sup>	Signalgrass, Broadleaf
Henbit <sup>2</sup>	Speedwell, Persian
Itchgrass	Sprangletop
Johnsongrass (from seed)	Spurge, Prostrate
Junglerice	Whitchgrass
Knotweed <sup>2</sup>	Woodsorrel, Yellow (from seed)

- 1 In those areas where *Poa annua* is a winter annual, apply this product (see rate table) in August or September to established, non-overseeded turf before *Poa annua* seeds germinate. These timings are approximate. Consult State Extension Service for more specific timing for your area. Also see the section of this label ***Poa annua* Control In Established Bermudagrass Overseeded with Perennial Ryegrass (AZ, CA, NV, and TX Only)**.
- 2 To control this weed, apply this product in late summer, fall, or winter before weeds germinate.
- 3 **Fall Applications for Spring Crabgrass Control In Cool-Season Grasses:**  
In those areas where the ground freezes in the winter, this product can be applied in the fall at rates of 1.0-1.15 pounds/Acre after soil temperatures fall below 50°F, but before the ground freezes. This application will control crabgrass the following spring.
- 4 Suppression only.
- 5 In many areas a single application of 1-2.3 pounds/Acre of this product will control goosegrass. However, under heavy goosegrass pressure and/or an extended growing season, most effective control may be obtained by making an initial application of 1-1.5 pounds/Acre followed, after 60-90 days, by a second application that does not exceed the maximum rate for the turfgrass species listed in the **Maximum Application Rates Table**.

**WHEN TO APPLY THIS PRODUCT AFTER OVERSEEDING TURF**

Injury to desirable seedlings is likely if this product is applied before the secondary roots of seedlings are in the second inch of soil, not thatch plus soil. To reduce the potential to injure overseeded turf, wait 60 days after seeding or until after the second mowing, whichever is longer, before applying this product.

**WHEN TO OVERSEED AFTER APPLICATION - ALL STATES**

This product will inhibit the development of turfgrass species overseeded too soon after application. Follow rates and intervals in the table below for best overseeding/reseeding results.

**\*Note:** In AZ, CA, NV, and TX the overseeding interval can be shorter in established bermudagrass that has been overseeded with perennial ryegrass. See the next section, *Poa annua* Control in Established Bermudagrass Overseed with Perennial Ryegrass (AZ, CA, NV, and TX only).

AMOUNT OF THIS PRODUCT POUNDS PRODUCT/ACRE	INTERVAL (MONTHS BEFORE OVERSEEDING)		
	NORTH	TRANSITION	SOUTH
.75	4	4	4
1.00	5	4	4
1.15	6	5	5
1.25	--	6	6
1.50	--	7	7
1.75	--	--	9
2.00	--	--	10
2.30	--	--	12

**POA ANNUA CONTROL IN ESTABLISHED BERMUDAGRASS OVERSEEDED WITH PERENNIAL RYEGRASS  
(AZ, CA, NY, AND TX ONLY)**

Use on golf courses (excluding golf course putting greens), lawns, and sod nurseries when overseeding with perennial ryegrass (minimum seeding rate of 350 pounds/Acre).

**HOW MUCH OF THIS PRODUCT AND WHEN TO APPLY**

AMOUNT TO APPLY	WHEN TO APPLY	EXPECTED CONTROL	USE PRECAUTIONS
0.58-1.0 pounds/Acre*	<p><b>First application:</b> 6-8 weeks before ryegrass overseeding</p> <p><b>Second application:</b> 4-8 weeks after overseeding or when perennial ryegrass roots are in the second inch of soil</p>	<p>1 application for 70% or greater control of <i>Poa annua</i></p> <p>Second application may enhance control</p>	<ol style="list-style-type: none"> <li>1. Some seedling mortality and temporary reduction in root growth of new seedlings may occur.</li> <li>2. To reduce the potential for seedling mortality maintain a moist seedbed with light, frequent irrigation.</li> <li>3. Make no more than 2 applications per year for this use, and do not exceed a total of 1.3 pounds/Acre per year.</li> <li>4. Do not make a second application if any injury to the ryegrass is observed after the first application.</li> <li>5. Do not make a second application unless the product was first applied before overseeding.</li> </ol>

**STORAGE AND DISPOSAL**

Do not contaminate water, food, or feed by storage or disposal.

**PESTICIDE STORAGE:** Store in original container away from feed or foodstuffs and separated from other pesticides.

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

**CONTAINER DISPOSAL:**

**Paper and plastic film bags or boxes** - Completely empty container into application equipment. Then dispose of empty bag or box in a sanitary landfill or incinerate; or, if allowed by state and local authorities, burn locally. Stay out of smoke from burning container.

**Fiber drums with plastic liners** - Completely empty the plastic liner by shaking and tapping sides and bottom to loosen clinging particles. Pour residues into application equipment. Dispose of empty liner at an incineration facility. Offer the fiber drum for recycling or re-use. If the fiber drum cannot be recycled or re-used, dispose of at an incineration facility.

**Plastic containers** - Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in sanitary landfill, or incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

**WARRANTY**

Seller warrants that this herbicide conforms to the chemical description on its label. When used in accordance with label directions under normal conditions, this herbicide is reasonably fit for its intended purposes. Since timing, method of application, weather, plant and soil conditions, mixtures with other chemicals, and factors affecting the use of this product are beyond our control, no warranty is given concerning the use of this product contrary to label directions or under conditions which are abnormal or not reasonably foreseeable. The user assumes all risks of any such use.

(New10/04)

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