

New York State Department of Environmental Conservation Division of Solid & Hazardous Materials

Pesticide Product Registration

in New York State
under 6NYCRR Part 326

DL OF GRASS AND BROADLEAF WEEDS IN ESTABLISHED TURFGENS), LAWNS, AND SOD NURSERIES; CONTAINER, FIELD-GROW

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; CONIFER; HARDWOOD SEEDLING NURSERIES; ESTABLISHED PERENNIAL AND WILDFLOWER PLANTINGS; CHRISTMAS TREE FARMS; PLANTS GROWN FOR CUT FOLIAGE PRODUCTION (FLORIDA ONLY); AND VEGETATION MANAGEMENT SITUATIONS INCLUDING: NON-CROP AREAS ON OR SURROUNDING MUNICIPAL GROUNDS AND GOVERNMENTAL INSTALLATIONS, MANAGED RIGHTS-OF-WAY FOR TRANSPORTATION SYSTEMS AND UTILITIES (INCLUDING ROADWAYS, ROADSIDES, RAILWAYS AND EQUIPMENT YARDS), FACILITIES INCLUDING SUBSTATIONS, TANK FARMS, PUMPING STATIONS, PARKING AND STORAGE AREAS, AND UNGRAZED FENCE ROWS.

ACTIVE INGREDIENT:

KEEP OUT OF REACH OF CHILDREN CAUTION / PRECAUCION

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

SEE INSIDE BOOKLET FOR FIRST AID AND PRECAUTIONARY STATEMENTS

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

NET WEIGHT: 5 lbs. (2.26 Kg)

EPA Reg. No. 228-434 EPA Est. No. 037429-GA-001



PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION / PRECAUCION

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.

USER SAFETY RECOMMENDATIONS

Users Should:

• Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

You may also contact 1-877-325-1840 for emergency medical treatment information.

- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. If pesticide gets on skin, wash immediately with soap and water.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

FIRST AID		
IF SWALLOWED	 Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person. 	
IF ON SKIN OR CLOTHING	 Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice. 	
IF IN EYES	 Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice. 	
IF INHALED	 Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice. 	
HOT LINE NUMBER Have the product container or label with you when calling a poison control center or doctor, or going for treatment.		

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.

NON-AGRICULTURAL USES REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides, 40 CFR part 170. The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries or greenhouses.

Do not allow people (other than applicator) or pets on treatment area during application. Do not enter treatment areas until spray has dried.

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
- Conifer
- Hardwood seedling nurseries
- · Established perennial and wildflower plantings
- Plants grown for cut foilage production
- Christmas tree farms
- Vegetation Management situations including: Non-crop areas on or surrounding managed rights-of-way for transportation systems and utilities (including roadways, roadsides, railways, and equipment yards); Facilities including substations, tank farms, pumping stations, parking and storage areas, and ungrazed fence rows.

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.

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 an 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	RATE	LEVEL	
FORMULATIONS	ACRE	1,000 SQ. FT.	TEASPOONS
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. Prior to application of this product, control existing vegetation by hand weeding, cultivation, or the use of an appropriate postemergence herbicide.
- 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-thetop 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).

ORNAMENTALS AND CHRISTMAS TREE FARMS - APPLICATION SITES AND INSTRUCTIONS

SITE	APPLICATION INSTRUCTIONS
Newly-Transplanted Container or Field Nursery Stock	 Delay application until soil has settled around transplants. Water transplants thoroughly before application. Apply after cuttings form roots and are established. 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	 Apply as a broadcast, over-the-top, or as a directed spray. Delay applications to newly transplanted ornamentals until soil has settled around transplants.
Bare Ground Application for Container Placement	 Apply to soil (including mulch, gravel, wood chips, or other permeable base), upon which containerized ornamentals are placed. 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	 This product may be applied to bulbs or perennial wildflower species listed in the section. Tolerant Ornamentals Species. 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 to 2.3 pounds/Acre or 0.37 to 0.83 ounces/1,000 sq. ft.	In fall or spring before weeds germinate or after weeds are removed.	Use the higher rate for longer control. 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:

Band width in inches
Row width in inches

broadcast rate = 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. Tank mixes with this product are for use only in states where the tank mix partner(s), application site and intended use pattern are 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.

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 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.	

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

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

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

Common Name
Japanese Honeysuckle
Japanese Maple
Japanese Pittosporum
Japanese Privet
Japanese Snowball
Japanese Spindle Tree
(Evergreen Euonymus)
Japanese Viburnum
Japanese Yew
Japanese Yew
Kiwi*

Lady Bank's Rose
Laurustinus
Leatherleaf Fern
Leatherleaf Viburnum
Lily-of-the-Nile (African Lily)
Lily-of-the-Valley Shrub
Loblolly Pine
Longleaf Pine
Magnolia species**
Mentor Barberry
Mondo Grass**
Monterey Pine
Narcissus species**
Norway Maple
Old Fashioned Weigela

Old Fashioned Oleander Olive* Pampas Grass Pistachio* PJM

Queensland Pittosporum

Red Oak

Rockspray Cotoneaster Rose of Sharon** **Scientific Name**

Lonicera japonica Acer palmatum Pittosporum tobira Ligustrum japonicum Viburnum plicatum Euonymus japonica

Viburnum japonicum
Podocarpus macrophyllus
Taxus cuspidata
Actinidia chinensis
Rosa banksiae
Viburnum tinus
Rumohra adiantiformis
Viburnum wrightii
Agapanthus africanus
Pieris japonica
Pinus taeda
Pinus palustrus
Magnolia spp.

Berberis mentorensis Ophiopogon japonicus

Ophiopogon japonicus
Pinus radiata
Narcissus spp.
Acer platanoides
Weigela florida
Nerium spp.
Olea europaea
Cortaderia selloana
Pistacia spp.
Rhododendron
(including Azalea)
Pittosportum rhombifolium

Quercus rubra Cotoneaster microphyllus

Hibiscus

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

**Not for use on container grown plants

Common Name

Rosemary* Roseum Elegans

Scotch Heather Scotch Pine Shrimp Plant Silverberry Slash Pine Spanish Bayonet Spreading Euonymus Sourwood Star Jasmine Stonecrop

Spruce species**
(Colorado Blue, Norway,

Shore Juniper

etc.) Sweet Viburnum Tatarian Honeysuckle Trailing African Daisy Tulip species

Vinca

Vine Hill Manzanita Virginia Pine Walnut* Warty Barberry Weeping Bottlebrush White Trailing Ice Plant

Wild Lilac Winter Jasmine Wintercreeper Wintergreen Barberry Yaupon Holly

Yew

Yucca, Adam's Needle

Scientific Name

Rosmarinus officinalis Rhododendron (including Azalea) Calluna vulgaris Pinus sylvestris Justicia brandegeana Elaeagnus pungens Pinus elliottii Yucca aloifolia

Euonymus kiautschovicka Oxydendrum arboreum Trachelospermum asiatum

Sedum album Juniperus conferta Picea spp.

Viburnum odoratissimum Lonicera tatarica

Osteospermum fruticosum

Tulipa spp. Vinca major

Arctostaphylos densiflora

Pinus virginiana Juglans spp. Berberis verruculosa Callistemon viminalis Delosperma alba Ceanothus rigidus

Jasminium nudiflorum
Euonymus fortunei
Berberis julianae
Ilex vomitoria
Taxus media
Yucca filamentosa

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

Common Name
Abelia: Sherwood
Aquilegia: Red and Gold
Arrowood Viburnum
Aster: Bonny Blue, Purple
Dome
Australian Brushcherry

Black-Eyed Susan: Goldstrum Bougainvillea Burgundy

Bigleaf Hydrangea

Baby's Breath

Butterfly-Bush (Dwarf Blue); Royal Red

Cardinal Flower, Indian Pink

Cheddar Pink

Chinese Privet; Variegata Columbine; Red and Gold Coneflower, Purple; Magnus

Cooperi Pink Coral Bell; Bridget Bloom Coreopsis (Calliopsis): Early

Sunrise, Moonbeam Cransbill

Cransbill
Crape Myrtle; Tuscarora
Crimson Bottlebrush
Daylily: Aztec Gold, Stella
De Oro, Tender Love
Delaware Valley White

Dianthus, Maiden Pinks Zing Dragonhead, False; Vivid Edelweiss Evening Primrose Flame Creeper

Fibrous Begonia: Hardy Grandis

Fountain Grass (Dwarf)**

Five-Leaf or Chocolate Vine Gaillardia, Blanket Flower: 'Goblin' Gentian

George L. Tabor Germander Girard Crimson

Grape Myrtle; Tuscarora Hosta, 'Searsucker'

Hosta, Plantain Lily (Fragrant)

Scientific Name

Abelia grandiflora
Aquilegia spp.
Viburnum suspensum
Aster spp.
Aster X frikartii
Syzygium paniculatum
Gyposophila repens
Hydrangea macrophylla
Inula ensifolia
Rudbeckia spp.

Bougainvillea spp. Loropetalum chinense Buddleia davidii

Lobelia cardinalis
Dianthus gratianopolitanus
Ligustrum sinense
Aquilegia spp.
Echinacea purpurea
Delosperma spp.
Heucherella spp.
Coreopsis spp.

Geranium cinereum Lagerstromia indica x fauriei Callistemon citrinius Hemerocallis spp.

Rhododendron (including Azalea) Dianthus deltoides Physostegia virginiana Leontopodium alpinum Oenothera missourensis Rhododendron (including Azalea) Begonia spp. Bergenia cordifolia Pennisetum setaceum perovskia atriplicifolia Akebia quintata Gaillardia spp. Gaura spp. Gentiana dahurica Rhododendron (including Azalea) Teucrium spp. Rhododendron

Rnododendron
(including Azalea)
Lagerstromia indica x fauriei

Hosta sieboldiana Houttuynia cordata var. variegata Hosta plantaginea

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

**Not for use on container grown plants.

Common Name

Japanese Anemone
Lady Fern; Fern Lady
Lady's Leek, Nodding Onion
Larkspur; Blue Elf
Lavender; Munstead
Lily: Jazz
Lily of the Nile
Liriope, Creeping
Liriope, Variegated

Loosestrife; Modern Pink Lucifer

Mallow; Disco Belle White

Meadow Rue Oak, Shumard's Red Osmanthus (False Holly): Gulf Tide

Parsoni Pincushion Flower Saxifrage; Purple Dome Siberian Iris; Cabernet Snowbank

Spirea: Anthony Waterer Stonecrop

Stonecrop; Dragon's Blood Stonecrop; Lidakense

Sunrose Sword-Leaved Iris;

Jodlesong

Trumpet Creeper, Trumpet Flower Madame Galen

Tree Peony
Tussock Bellflower; (White Clips)

Veronica, Speedwell; Sunny Border Wakeiebisu

Weeping Forsythia Weeping Lantana White Gumpo

Wormwood; Silver Mound, Castle

Yaku Jima**, Silberfeder** Yarrow: King Edward

Yedda Hawthorne

Scientific Name

Anemone hybrida
Athyrium filix-femina
Allium cernuum
Delphinium spp.
Lavender spp.
Lilium spp.
Agapanthus orientlis
Liriope spicata
Liriope muscari var.
variegata

Lythrum spp. Crocosmia spp. Hibiscus spp.

Thalictrum dipterocarpum Quercus shumardii Osmanthus heterophyllus

Juniperus davurica Scabiosa spp. Saxifraga spp. Iris sibirica Boltonia asteroides Spiraea bumalda Sedum dasyphyllum Sedum spurium Sedum cauticola Helianthemum spp. Iris ensata

Campis X tagliabuana
Ceratostigma
plumbaginoides
Chrysanthemum nipponicum
Paeonia suffruticosa
Campanula carpatica

Veronica spp.

Rhododendron (including Azalea) Forsythia syspensa Lantana montevidensis Rhododendron (including Azalea) Artemisia spp.

Miscanthus sinensis Achillea spp. Agapanthus orientalis Raphiolepsis umbellata

CONIFER AND HARDWOOD SEEDLING NURSERIES

This product may be applied for residual preemergence weed control in conifer and hardwood seedling nurseries.

This product may be applied to conifer and hardwood seedling nurseries any time after the soil has settled around newly transplanted seedlings, liners, or bare root plants.

Apply this product at 1 to 2.3 lbs./A in fall and/or spring. Equivalent applications for smaller areas are 0.36 to 0.83 oz./1,000 sq. ft. Use higher rates of application for longer control periods. Sequential applications may be made so long as the total amount of product applied does not exceed the maximum annual application rate of 2.3 lbs./A.

SOUTHERN PINE SEEDBEDS

To assist in the establishment of Southern pine seedbeds, a preemergence application should be made just after seeding. Applications made after emergence of the pine seedlings should not be made until a minimum of three weeks after the time when most seedlings have shed their seedcoat. Pines are tolerant to preemergence and postemergence applications of this product.

Dosage: Apply this product at 0.75 lb. (0.49 lb. active) per broadcast acre. Mix with clean water at recommended concentration and apply at 20 to 40 psi in a minimum of 20 gallons of water per treated acre. Broadcast to beds and irrigate with approximately 1/2 inch of sprinkler irrigation.

HARDWOOD SEEDBEDS

Apply this product at a rate of 0.75 to 1.5 lbs. (0.49 to 0.98 lb. active) to the following seedlings that are at least 6 weeks old (from time of 50% germination): Oak (*Quercus* spp.), Sweetgum, Green Ash.

Use higher rate (1.5 lbs.) when a longer control period (3 to 4 months) is desired or under conditions of higher anticipated weed pressure. The lower rate (0.75) will provide 2 to 3 months of weed control. Broadcast to beds and irrigate with approximately 1/2 inch of sprinkler irrigation.

Most effective weed control will be obtained when this product is activated by at least 0.5 inch of rainfall or irrigation prior to weed seed germination and within 14 days following application.

This product may be tank mixed with Goal in conifer seedling nurseries for broader spectrum preemergence weed control. Refer to the use directions of tank mix partner herbicides for additional weeds controlled, rates and precautions.

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.

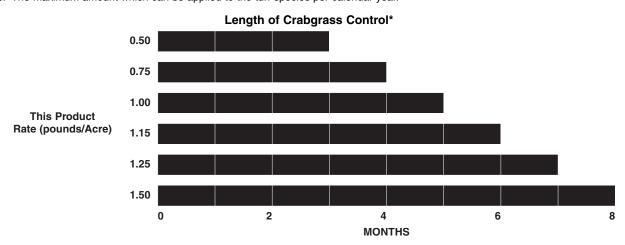
APPLICATION TIMING AND RATE - TURFGRASS

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.



^{*}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 SPECIES¹

TURF SPECIES	POUNDS PRODUCT/ACRE	OUNCES PRODUCT/1,000 SQ. FT.
Bermudagrass ² Bahiagrass Centipedegrass Kikuyugrass Seashore Paspalum St. Augustinegrass ³ Tall Fescue (including turf-type) Zoysiagrass	1.0 to 2.30¹	0.36 to 0.83
Buffalograss Kentucky Bluegrass Perennial Ryegrass	0.5 to 1.50¹	0.185 to 0.55
Fine Fescue	0.5 to 1.15 ¹	0.185 to 0.42
Creeping Bentgrass (0.5 inch or more in height) ⁴	0.5 to 1.00¹	0.185 to 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.

WEEDS CONTROLLED

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

Barnyardgrass Purslane, Common Henbit² Pusley, Florida Bluegrass, Annual (Poa annual)1 Itchgrass Carpet weed Johnsongrass (from seed) Rescuegrass4 Shepherds Purse² Chickweed, Common² Junalerice Chickweed, Mouseear (from seed) Signalgrass, Broadleaf Knotweed² Crabgrass (Large, Smooth)3 Kochia Speedwell, Persian Crowfootgrass Lambsquarters, Common Sprangletop Cupgrass, Woolly Lovegrass Spurge, Prostrate Foxtails, Annual Panicum, (Texas, Fall, Browntop) Witchgrass

Goosegrass⁵ Pigweed Woodsorrel, Yellow (from seed)

- ² To control this weed, apply this product in late summer, fall, or winter before weeds germinate.
- 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 to 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.
- In many areas a single application of 1 to 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 to 1.5 pounds/Acre followed, after 60 to 90 days, by a second application that does not exceed the maximum rate for the turfgrass species listed in the Maximum Application Rates Table.

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 to 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.

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).

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	INTERVAL (MONTHS BEFORE OVERSEEDING)		
POUNDS PRODUCT/ACRE	NORTH	TRANSITION	SOUTH
0.75	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, NV, 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*	First application: 6-8 weeks before ryegrass overseeding Second application: 4-8 weeks after overseeding or when perennial ryegrass roots are in the second inch of soil	application for 70% or greater control of <i>Poa annua</i> Second application may enhance control	 Some seedling mortality and temporary reduction in root growth of new seedlings may occur. To reduce the potential for seedling mortality maintain a moist seedbed with light, frequent irrigation. Make no more than 2 applications per year for this use, and do not exceed a total of 1.3 pounds/Acre per year. Do not make a second application if any injury to the ryegrass is observed after the first application. Do not make a second application unless the product was first applied before overseeding.

VEGETATION MANAGEMENT

This product may be applied to soil surfaces for preemergence control of many grass and broadleaf weeds in non-cropland areas on or surrounding municipal grounds and government installations, managed rights-of-way for transportation systems and utilities (including roadways, roadsides, railways, and equipment yards), facilities including substations, tank farms, pumping stations, parking and storage areas, and ungrazed fence rows.

This product provides preemergence control of germinating weed seeds. Most effective weed control will be obtained when this product is activated by at least 0.5 inch rainfall or irrigation, or shallow incorporation prior to weed seed germination and within 14 days following application.

Apply this product at 1 to 2.3 lbs./A in fall and/or spring. Equivalent application for smaller areas is 0.36 to 0.83 oz./1,000 sq. ft. Use higher rates of application for longer periods of control. Sequential applications may be made so long as the total amount of product applied does not exceed the maximum annual application rate of 2.3 lbs./A.

This product may be tank mixed with other registered herbicides for broader spectrum preemergence or postemergence weed control of existing weeds or brush. See MIXING AND APPLICATION section for more information.

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 - Nonrefillable containers. Do not reuse or refill these containers. 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 - Nonrefillable container. Do not reuse or refill this container. 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 - Nonrefillable container. Do not reuse or refill this container. 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 DISCLAIMER

The directions for use of this product must be followed carefully. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, (1) THE GOODS DELIVERED TO YOU ARE FURNISHED "AS IS" BY MANUFACTURER OR SELLER AND (2) MANUFACTURER AND SELLER MAKE NO WARRANTIES, GUARANTEES, OR REPRESENTATIONS OF ANY KIND TO BUYER OR USER, EITHER EXPRESS OR IMPLIED, OR BY USAGE OF TRADE, STATUTORY OR OTHERWISE, WITH REGARD TO THE PRODUCT SOLD, INCLUDING, BUT NOT LIMITED TO MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, USE, OR ELIGIBILITY OF THE PRODUCT FOR ANY PARTICULAR TRADE USAGE. UNINTENDED CONSEQUENCES, INCLUDING BUT NOT LIMITED TO INEFFECTIVENESS, MAY RESULT BECAUSE OF SUCH FACTORS AS THE PRESENCE OR ABSENCE OF OTHER MATERIALS USED IN COMBINATION WITH THE GOODS, OR THE MANNER OF USE OR APPLICATION, INCLUDING WEATHER, ALL OF WHICH ARE BEYOND THE CONTROL OF MANUFACTURER OR SELLER AND ASSUMED BY BUYER OR USER. THIS WRITING CONTAINS ALL OF THE REPRESENTATIONS AND AGREEMENTS BETWEEN BUYER, MANUFACTURER AND SELLER, AND NO PERSON OR AGENT OF MANUFACTURER OR SELLER HAS ANY AUTHORITY TO MAKE ANY REPRESENTATION OR WARRANTY OR AGREEMENT RELATING IN ANY WAY TO THESE GOODS.

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If you do not agree with or do not accept any of the directions for use, the warranty disclaimers, or limitations on liability, do not use the product, and return it unopened to the Seller, and the purchase price will be refunded.

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