

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

WASHINGTON, D.C. 20460

December 8, 2024

Patricia McFadden Registration Manager Sipcam Agro USA, Inc. 2525 Meridian Parkway Durham, NC 27713

Subject: Label Amendment – Label amendment updating the PHI of cutting sod and other

changes.

Product Name: SIPCAM PRODIAMINE 65WDG

EPA Registration Number: 60063-26

Application Date: 09/27/2022

Case Number: 472239

Dear Patricia McFadden:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. The next label printing of this product must use this labeling unless subsequent changes have been approved. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under FIFRA and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) lists examples of statements EPA may consider false or misleading. In addition, regardless of whether a website

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is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6.

If you have any questions, please contact Laura Rademacher at Rademacher.Laura@epa.gov.

Sincerely,

Kable Bo Davis
Senior Regulatory Specialist
Office of Pesticide Programs
Registration Division, Immediate Office

Enclosure

Sipcam Prodiamine 65WDG EPA Reg. No. 60063-26

ACCEPTED 12/08/2024

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 60063-26

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PRODIAMINE GROUP 3 HERBICIDE

SIPCAM PRODIAMINE 65WDG

Alternate Brand Name: , Cavalcade® 65WDG

For preemergence control of grass and broadleaf weeds in:

- Established turfgrasses (excluding golf course putting greens), lawns and sod nurseries;
- Landscape ornamentals in nurseries or in established plantings;
- Established perennials and wildflower plantings;
- Plants grown for cut foliage production (Florida only);
- Conifer and hardwood tree seedling nurseries;
- Christmas tree farms;
- Managed transportation and utility rights-of-way, including rail and equipment yards, and public utility facilities (substations, tank farms, pumping stations, parking/storage areas, ungrazed fencerows).

ACTIVE INGREDIENT:

Prodiamine (CAS No. 29091-21-2)	65.0%
OTHER INGREDIENTS:	35.0%
TOTAL:	100.0%

KEEP OUT OF REACH OF CHILDREN CAUTION

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.)

(ii you do not understand the label in a someone to explain it to you in detail.)				
		FIRST AID		
 Hold eye open and rinse slowly and gently with water for 15 - 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinse. 				
IF IN ETES	eye. • Call a poison control center or doctor for treatment advice.			
	•	center or doctor immediately for treatment advice.		
IF	 Have affected person 	sip a glass of water if able to swallow.		
SWALLOWED	 Do not induce vomiting 	ng unless told by a poison control center or doctor.		
	 Do not give anything 	by mouth to an unconscious person.		
IF ON SKIN OR	• Take off contaminated clothing.			
• Rinse skin immediately with plenty of water for 15 – 20 minutes.				
CLOTTING	Call a poison control center or doctor for treatment advice.			
	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.				
Have the product container or label with you when calling a poison control center or doctor, or going for				
treatment.				
EMERGENCY PHONE NUMBERS (800) 424-9300 CHEMTREC (transportation and spills) (800) 222-1222 Poison Control Center (human health)				

MANUFACTURED BY: SIPCAM AGRO USA, INC.

2525 Meridian Parkway, Durham, NC 27713

Sipcam Prodiamine 65WDG EPA Reg. No. 60063-26

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See additional Precautionary Statements and Directions for Use inside [the] booklet. – OR – See [the following section,] [additional] **Precautionary Statements and Hazards to Humans and Domestic Animals** for additional information.

Read the entire label carefully before using this product. – OR – Read the entire label carefully before opening the container.

EPA Reg. No. 60063-26	Net Contents:	[pounds] [lbs.] [(kg)]
EPA Est. No	[label date/lot code] [l	
[Lot [number] [no.] [#] begins with xx]		

OPTIONAL LABEL LANGUAGE THAT MAY APPEAR ON THE FRONT OF THE LABEL

[Application Type] [T] [Turf]
[Application Type] [T&O] [Turf and Ornamental]
[Peel back [label] [book] here
[Cut bag open here] [Tear bag open here]

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION. Causes moderate eye irritation. 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 EQUIPEMENT

All Mixers, Loaders, Applicators, and other handlers must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks
- Waterproof gloves

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, 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 170.607(d-e), the handler PPE requirements may be reduced or modified as specified in the WPS.

IMPORTANT: When reduced PPE is worn because a closed system is being used, handlers must be provided with all of the PPE specified above for applicators and other handlers, and have such PPE immediately available for use in an emergency, such as a spill or equipment breakdown.

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- 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.
- After handling this product, immediately wash the outside of gloves before removing them, then remove gloves and all other PPE. Immediately wash thoroughly and change into clean clothing.

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.

NON-TARGET ORGANISM ADVISORY STATEMENT: This product is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated site. Protect the forage and habitat of non-target organisms by following label directions intended to minimize spray drift.

DIRECTIONS FOR USE

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

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 Workers Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and 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 USE REQUIREMENTS

The requirements of 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, forest, or nurseries.

Keep unprotected persons out of treated area until dusts have settled and the turfgrass or soil is dry.

WEED-RESISTANCE MANAGEMENT

For resistance management, this product is a Group 3 herbicide. Any weed population may contain or develop plants naturally resistant to this product and other Group 3 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same field. Appropriate resistance management strategies should be followed.

To delay herbicide resistance, take one or more of the following steps:

- Rotate the use of this product or other Group 3 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds in a field.
- Use tank mixtures with herbicides from a different group if such use is permitted; where information on
 resistance in target weed species is available, use the less resistance-prone partner at a rate that will
 control the target weed(s) equally as well as the more resistance-prone partner. Consult your local
 extension service or certified crop advisor if you are unsure as to which active ingredient is currently less
 prone to resistance.
- Adopt an integrated weed-management program for herbicide use that includes scouting and uses
 historical information related to herbicide use and crop rotation, and that considers tillage (or other
 mechanical control methods), cultural (e.g., higher crop seeding rates; precision fertilizer application
 method and timing to favor the crop and not the weeds), biological (weed-competitive crops or varieties)
 and other management practices.
- Scout before and after herbicide application to monitor weed populations for early signs of resistance development. Indicators of possible herbicide resistance include: (1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; (2) a spreading patch of non-controlled plants of a particular weed species; (3) surviving plants mixed with controlled individuals of the same species. If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method such as hoeing or tillage. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields, and planting clean seed.
- If a weed pest population continues to progress after treatment with this product, discontinue use of this product, and switch to another management strategy or herbicide with a different mode of action, if available.
- Contact your local extension specialist or certified crop advisors for additional pesticide resistance management and/or integrated weed-management recommendations for specific crops and weed biotypes.
- For further information or to report suspected resistance, contact [Sipcam Agro or subregistrant company representatives] at [Sipcam Agro or subregistrant toll-free number] or at [SipcamAgro.com or subregistrant Internet site].

SPRAY DRIFT ADVISORIES

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT. BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

IMPORTANCE OF DROPLET SIZE

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

Controlling Droplet Size – Ground Boom

- Volume Increasing the spray volume so that larger droplets are produced will reduce spray drift.
 Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- Pressure Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.

 Spray Nozzle – Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

BOOM HEIGHT – Ground Boom

For ground equipment, the boom should remain level with the crop and have minimal bounce.

SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

BOOMLESS GROUND APPLICATIONS

Setting nozzles at the lowest effective height will help to reduce the potential for spray drift.

HANDHELD TECHNOLOGY APPLICATIONS

Take precautions to minimize spray drift.

TEMPERATURE AND HUMIDITY

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

TEMPERATURE INVERSIONS

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke

generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.

WIND

Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.

Applicators need to be familiar with local wind patterns and terrain that could affect spray drift

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;
- Landscape ornamentals in nurseries or in established plantings;
- Established perennials and wildflower plantings;
- Plants grown for cut foliage production (Florida only);
- Conifer and hardwood tree seedling nurseries;
- Christmas tree farms:
- Managed transportation and utility rights-of-way, including rail and equipment yards, and public utility facilities (substations, tank farms, pumping stations, parking/storage areas, ungrazed fencerows).

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 RESTRICTIONS

- 1. **DO NOT** exceed a dosage of 1.5 lbs.Al/Acre, (2.3 lbs./A of this product) per year on any use site.
- 2. **DO NOT** graze or feed livestock forage cut from areas treated with this product.
- 3. Follow all applicable directions, restrictions, and precautions on the labels of EPA-registered tank mix partners.
- 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 $\frac{1}{4}$ 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

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

DO NOT exceed label dosage rates. This product cannot be mixed with any product containing a label prohibition against such mixing.

DO NOT combine this product in sprayer tank with pesticides, surfactants, or fertilizers; unless your prior use has shown the combination physically compatible, effective and noninjurious under your conditions of use.

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 the compatibility by mixing all components (carrier and pesticide products) in a small container in proportionate quantities. For example, a 1-qt. jar would be 1/100 the volume of a 25 gals./A spray rate. At 1 lbs./A, the product rate would be proportional to 4.5 g per qt. Add approximately 1.5 teaspoons to a qt. of water. Calculate amounts for the other products based on rate per acre. An approximate volume would be 1.5 teaspoons for each lb./A of a dry formulation and 0.5 teaspoons for each pt./A of a liquid formulation. (See following table.)

Amount of Component to add to one quart jar of Spray Carrier (Assuming Carrier Volume of 25 gals./A)

Component Formulation	Rate Per Acre	Rate Per 1,000 sq. ft.	Level Teaspoons
Sipcam Prodiamine 65WDG	1.0 lb.	0.4 oz.	1.5
Dry Tank Mix Partners	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 the components are not compatible, use a compatibility agent and rerun the test to determine if the mixture is suitable. If 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 product to disperse before adding any other tank mix partner.
- 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. When an adjuvant is to be used with this product, use a Chemical Producers and Distributors Association certified adjuvant.
- 4. Add flowable liquids (FL) or suspension concentrates (SC).
- 5. Add emulsifiable concentrates (EC) last.

APPLICATION

Apply this product in a minimum of 20 gals/A (0.5 gal./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.

WEEDS CONTROLLED

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

Barnyardgrass	Goosegrass ⁵	Purslane, common
Bluegrass, annual (<i>Poa annua</i>) ¹	Henbit ²	Pusley, Florida
Carpet weed	Itchgrass	Rescuegrass ⁴
Chickweed, common ²	Johnsongrass (from seed)	Shepherds purse ²
Chickweed, mouseear (from seed)	Junglerice	Signalgrass, broadleaf
Crabgrass (Large, Smooth) ³	Knotweed ²	Speedwell, Persian
Crowfootgrass	Kochia	Sprangletop
Cupgrass, woolly	Lambsquarter, common	Spurge, prostrate
Foxtails, annual	Lovegrass	Witchgrass
Pigweed	Panicum (Texas, Fall, Browntop)	Woodsorrel, yellow (from seed)

¹In areas where *Poa annua* is a winter annual, apply this product in August or September to established, non-overseeded turf before *Poa annua* seeds germinate. These timings are approximate. Consult your 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).

²To control this weed, apply this product in late summer, fall, or winter before weed seeds germinate.

³Fall 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 lbs./A after the soil temperature falls below 50°F but before the ground freezes. This application will control crabgrass the following spring.

⁵In any area a single application of 1-2.3 lbs./A 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 lbs./A followed, after 60-90 days, by a second application that does not exceed the maximum rate for that turfgrass species listed in the Maximum Application Rate Table.

SPECIFIC USE DIRECTIONS

ESTABLISHED TURF

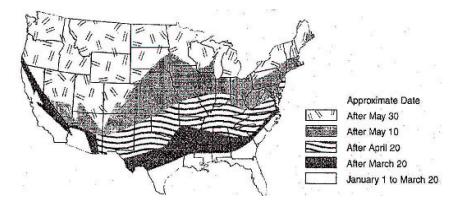
This product is a preemergence herbicide that, when properly applied, will control certain grass and broadleaf weeds in established turfgrasses including:

- 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 the 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. See the **Weeds Controlled** list for the weeds that can be controlled.

CRABGRASS SEED GERMINATION DATES



USE RESTRICTIONS - TURFGRASS

- DO NOT APPLY THIS PRODUCT TO GOLF COURSE PUTTING GREENS.
- DO NOT exceed a dosage of 1.5 lbs. a.i./Acre, (2.3 lbs./A of this product) per year on any use site.
- **DO NOT** apply this product to areas where dichondra, colonial bentgrass, velvet bentgrass, or annual bluegrass (*Poa annua*) are desirable species.
- **DO NOT** cut (harvest) treated sod before 30 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.
- To avoid turfgrass injury, DO NOT apply this product to turf stressed by conditions such as drought, low fertility, or pest damage.

⁴Suppression only.

If the depth of the creeping bentgrass root system becomes shallow and root tips contact soil treated
with this product, 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.

USE PRECAUTIONS - TURFGRASS

 Disturbing the herbicide barrier with cultural practices such as disking may result in reduced weed control.

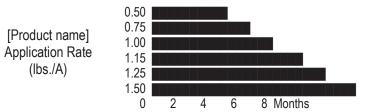
Application Timing and Rate – Turfgrass

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:

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

Length of Crabgrass Control*



^{*}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 per calendar year by Turfgrass Species 1

Turf Species	Application Rate (lbs./Acre)	Application Rate (oz./1,000 sq. ft.)
Bermuda grass ² Bahiagrass Centipedegrass Kikuyugrass Seashore Paspalum St. Augustinegrass ³ Tall Fescue (including turf-type) Zoysiagrass	1.0-2.30 ¹	0.36-0.83
Buffalograss Kentucky Bluegrass Perennial Ryegrass	0.5-1.50 ¹	0.18555
Fine Fescue	0.5-1.15 ¹	0.185-0.42
Creeping Bentgrass (0.5 inches or more in height) 4	0.5-1.00 ¹	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.

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 Overseeded with Perennial Ryegrass (AZ, CA, NV, and TX only)".

Amount of Product	Interval Before Overseeding (Months)		
Lbs. Product/A	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 lbs./A).

How Much and When to Apply

Amount to Apply	When to Apply	Expected Control
0.58-1.0	First application: 6 to 8 weeks before ryegrass overseeding	One (1) application for 70% or greater control of <i>Poa annua</i> .
lbs./A	Second application: 4 to 8 weeks after overseeding or when perennial ryegrass roots are in the second inch of soil	Second application may enhance control.

USE RESTRICTIONS

- **DO NOT** make more than 2 applications per year for this use.
- **DO NOT** exceed a total of 1.3 lbs./A 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.

USE PRECAUTIONS

- 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.

² May be used on newly-sprigged or plugged Bermudagrass at rates not to exceed 0.80 lbs./A (0.30 oz./1,000 sq. ft.). Newly-sprigged or plugged Bermudagrass stolon rooting may be temporarily retarded.

³ Use an initial rate of 0.75-1.5 lbs./A per application.

⁴ To avoid grass injury, **DO NOT** apply this product to creeping bentgrass mowed at less than 0.5 inch in height.

CONTAINER, FIELD, GROWN, AND LANDSCAPE ORNAMENTALS (INCLUDING CHRISTMAS TREE FARMS)

This product may be applied to soil surfaces for preemergence control of many grass and broadleaf weeds around ornamental shrubs, trees, established perennial vegetation and wildflower plantings.

Application Timing and Information

- This product will not control emerged weeds. See the Weeds Controlled list for the weeds that can be controlled.
- This product may be applied to newly-transplanted and established ornamentals as broadcast or overthe-top-spray.
- This product is most effective when applied to soil free of clods, weeds, and debris such as leaves and mulch.
- This product is most effective when the product is activated in the soil before weed seeds germinate and within 14 days after application.
- This product 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 RESTRICTION

DO NOT exceed a dosage of 1.5 lbs. a.i./Acre, (2.3 lbs./A of this product) per year on any use site.

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 plants before application may improve the washing process).

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 from 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 application 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 totaling at least ½ 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 Ornamental 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 and When to Apply

Amount to Apply (Broadcast)*	When to Apply	Comments/Instructions
1.0-2.3 lbs./A (0.37-0.83 oz./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 lbs./A per year (0.83 oz./1,000 sq. ft.).

*Note: For band application calculate amount per acre:

Band width in inches
Row width in inches

Broadcast rate = Amount to apply per acre of field

Equivalent Measurements for-Application

Lbs./A	Oz./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 Container, Field Grown, and Landscape 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. 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.

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

DO NOT exceed label dosage rates. This product cannot be mixed with any product containing a label prohibition against such mixing.

DO NOT combine this product in sprayer tank with pesticides, surfactants, or fertilizers, unless your prior use has shown the combination physically compatible, effective, and noninjurious under your conditions of use.

Tank Mix Partners for Use on Ornamentals

Tank mix i artifolo for 660 on Grifamontalo		
Active Ingredient	Precautions/Instructions	
Oxyfluorfen	Mix with this product for postemergence control of certain broadleaf weeds including malva and filaree.	
Isoxaben Simazine S-metolachlor	See product labels for weed spectrum and tolerant ornamentals.	

Glyphosate Glyphosinate	These nonselective tank mix herbicides control many emerged annual broadleaves and grasses. Take extreme care to prevent tank mixtures with these 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.
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Tolerant Ornamental Species

This product will not harm many trees, shrubs, vines, and flowers. The species listed below in Table 2 are tolerant to-this product. 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 2. Tolerant Ornamental Species

Scientific name	Common name	Scientific name	Common name
Abelia grandiflora	Abelia	Lantana montevidensis	Weeping Lantana
	Fir species (Balsam, Fraser,		
Abies spp.	Noble, etc.)	Lavender spp.	Lavender; Munstead
Acer palmatum	Japanese maple	Leontopodium alpinum	Edelweiss
Acer platanoides***	Norway maple***	Ligustrum amurense	Amur privet
Achillea spp.	Yarrow	Ligustrum japonicum	Japanese privet
Actinidia chinensis	Kiwi*	Ligustrum lucidum	Glossy privet; Wax-leaf
Agapanthus orientalis	Lily of the Nile; African lily	Ligustrum sinense	Chinese privet
Akebia quintata	Five-Leaf or Chocolate Vine	Lilium spp.	Lily
Allium cernuum	Lady's Leek; Nodding Onion	Liriope muscari	Liriope
Anemone hybrida	Japanese Anemone	Liriope spicata	Liriope, creeping
Aquilegia spp.	Columbine	Lobelia cardinalis	Cardinal flower; Indian pink
Arctostaphylos densiflora	Vine hill manzanita	Lonicera japonica	Japanese honeysuckle
Arctotheca calendula	Cape weed	Lonicera tatarica	Tatarian honeysuckle
Aucuba japonica	Japanese Aucuba	Loropetalum chinense	Loropetalum
,	Wormwood; Silver Mound;	,	<u> </u>
Artemisia spp.	Castle	Lythrum spp.	Loosestrife
Aster spp.	Aster	Magnolia spp.**	Magnolia
Athyrium filix-femina	Lady Fern	Maleophora luteola	Ice plant
Begonia spp.	Fibrous Begonia	Malus spp.*	Crabapple*
Berberis gladwynesis	Barberry	Miscanthus sinesis**	Yaku Jima**, Silberfeder**
Berberis julianae	Wintergreen barberry	Nandina domestica	Heavenly bamboo
Berberis mentorensis	Mentor barberry	Narcissus spp.**	Narcissus, Daffodil
Berberis thunbergii	Japanese barberry	Nerium spp.	Oleander
Berberis verriculosa	Warty barberry	Oenothera missouriensis	Evening primrose
Bergenia cordifolia		Olea europaea*	Olive*
Boltonia asteroides	Snowbank	Ophiopogon japonicus**	Mondo grass**
Bougainvillea spp.	Bougainvillea	Osmanthus heterophyllus	Osmanthus; False holly
Buddleia davidii	Butterfly-bush	Osteospermum fruticosum	Trailing African daisy
Buxus microphylla	Japanese boxwood	Oxydendron luteum	Sourwood
Callistemon citrinus	Crimson bottlebrush	Paeonia suffruticosa	Tree peony
Callistemon viminalis	Weeping bottlebrush	Pennisetum setaceum**	Fountain grass**
Calluna vulgaris	Scotch heather	Perovskia atriplicifolia	
Campanula carpatica	Tussock bellflower	Persea americana*	Avocado*
,	Trumpet creeper, Trumpet		
Campsis X tagliabuana	flower	Photinia fraseri	Photinia; Redtip
Carpobrotus edulis	Hottentot fig; Ice plant	Physostegia virginiana	False dragonhead

			Spruces (Colorado Blue,
Cassia artemisoides	Feathery Cassia	Picea spp. **, ***	Norway, etc.) **, ***
			Japanese andromeda; Lily-of-
Ceanothus rigidus	Wild lilac	Pieris japonica	the-valley shrub
Ceratostigma plumbaginoides		Pinus brutia	Calabrian pine
Chamaecyparis pisifera	False cypress	Pinus canariensis	Canary island pine
Chrysanthemum nipponicum		Pinus elliottii	Slash pine
Cleyera japonica	Cleyera	Pinus halepensis	Aleppo pine
	Ornamental orange, lemon,		
Citrus spp.*	lime, etc.*	Pinus nigra	Austrian black pine
Caraanaiaann	Coreopsis (Calliopsis): Early	Diama natuatria	Landarf wine
Coreopsis spp. Cornus stolonifera	Sunrise, Moonbeam	Pinus palustris	Longleaf pine
Cornus stoionirera Cortaderia selloana	American dogwood	Pinus radiata Pinus strobus	Monterey pine Eastern white pine
	Pampas grass Cranberry Cotoneaster	Pinus sylvestris	Scotch pine
Cotoneaster apiculatus Cotoneaster buxifolius	Cotoneaster	Pinus taeda	Loblolly pine
Cotoneaster dammeri	Bearberry Coteneaster	Pinus thunbergiana	Japanese black pine
Cotoneaster microphyllus	Rockspray Cotoneaster	Pinus virginiana	Virginia pine
Crataegus spp.	Hawthorn	Pistacia spp.*	Pistachio*
Cupressus sempervirens	Italian cypress	Pittosporum rhombifolium	Queensland Pittosporum
Crocosmia spp.	Lucifer	Pittosporum tobira	Japanese Pittosporum
Delosperma spp.	Ice plant	Podocarpus macrophyllus	Japanese yew
Delphinium spp.	Larkspur	Prunus laurocerasus	English laurel
zoipiiiiiaiii opp.	Lamopai		Almond, Apricot, Nectarine,
Dianthus deltoidia	Dianthus; Maiden pinks	Prunus spp.*	Peach, Plum, and Prune*
Dianthus gratianopolitanus	Cheddar pink	Pseudotsuga menziesii**, ***	Douglas fir**, ***
Dodonea viscosa	Hop bush	Pyracantha coccinea	Firethorn, scarlet
Echinacea purpurea	Coneflower	Pyracantha fortuneana	Firethorn
Elaeagnus pungens	Silverberry	Pyracantha koidzumii	Firethorn
			Pear spp., including
Euonymus fortunei	Wintercreeper	Pyrus spp.	'Bradford'
Euonymus japonica	Japanese spindle tree;		
	Evergreen Euonymus	Quercus rubra	Red oak
Euonymus kiautschovica	Spreading Euonymus	Quercus shumardii	Shumard oak
Fatsia japonica	Japanese aralia	Raphiolepsis indica	Indian hawthorne
Forsythia intermedia	Border Forsythia	Raphiolepsis umbellata	Yedda hawthorne
Forsythia suspense	Weeping Forsythia	Rhododendron spp.	Rhododendrons, Azaleas
Forsythia viridissima	Greenstem Forsythia	Rosa banksiae	Lady Banks rose
Gaillardia spp.	Gaillardia; Blanket flower	Rudbeckia spp.	Black-eyed Susan
Gardenia jasminoides	Gardenia; Cape-jasmine	Rumohra adiantiformis	
^ · · · ·			Leatherleaf Fern
Gaura spp.	Gaura	Santolina virens	
Gentiana dahurica	Gentian	Santolina virens Saxifraga spp.	Saxifrage; Purple dome
Gentiana dahurica Geranium cinereum	Gentian Cranesbill	Santolina virens Saxifraga spp. Scabiosa spp.	Saxifrage; Purple dome Pincushion flower
Gentiana dahurica Geranium cinereum Gladiolus spp.**	Gentian Cranesbill Gladiolus species**	Santolina virens Saxifraga spp. Scabiosa spp. Sedum spp.	Saxifrage; Purple dome Pincushion flower Stonecrop
Gentiana dahurica Geranium cinereum	Gentian Cranesbill	Santolina virens Saxifraga spp. Scabiosa spp.	Saxifrage; Purple dome Pincushion flower Stonecrop Spirea
Gentiana dahurica Geranium cinereum Gladiolus spp.** Gypsophila repens	Gentian Cranesbill Gladiolus species** Baby's breath	Santolina virens Saxifraga spp. Scabiosa spp. Sedum spp. Spiraea bumalda	Saxifrage; Purple dome Pincushion flower Stonecrop Spirea Australian brushcherry;
Gentiana dahurica Geranium cinereum Gladiolus spp.** Gypsophila repens Hedera helix	Gentian Cranesbill Gladiolus species** Baby's breath English ivy	Santolina virens Saxifraga spp. Scabiosa spp. Sedum spp. Spiraea bumalda Syzygium paniculatum	Saxifrage; Purple dome Pincushion flower Stonecrop Spirea Australian brushcherry; Japanese boxcherry
Gentiana dahurica Geranium cinereum Gladiolus spp.** Gypsophila repens Hedera helix Helianthemum spp.	Gentian Cranesbill Gladiolus species** Baby's breath English ivy Sunrose	Santolina virens Saxifraga spp. Scabiosa spp. Sedum spp. Spiraea bumalda Syzygium paniculatum Taxus cuspidata	Saxifrage; Purple dome Pincushion flower Stonecrop Spirea Australian brushcherry; Japanese boxcherry Japanese yew
Gentiana dahurica Geranium cinereum Gladiolus spp.** Gypsophila repens Hedera helix Helianthemum spp. Hemerocallis spp.	Gentian Cranesbill Gladiolus species** Baby's breath English ivy Sunrose Daylily	Santolina virens Saxifraga spp. Scabiosa spp. Sedum spp. Spiraea bumalda Syzygium paniculatum Taxus cuspidata Taxus spp.	Saxifrage; Purple dome Pincushion flower Stonecrop Spirea Australian brushcherry; Japanese boxcherry Japanese yew Yew
Gentiana dahurica Geranium cinereum Gladiolus spp.** Gypsophila repens Hedera helix Helianthemum spp. Hemerocallis spp. Heucherella spp.	Gentian Cranesbill Gladiolus species** Baby's breath English ivy Sunrose Daylily Coral bells	Santolina virens Saxifraga spp. Scabiosa spp. Sedum spp. Spiraea bumalda Syzygium paniculatum Taxus cuspidata Taxus spp. Teucrium spp.	Saxifrage; Purple dome Pincushion flower Stonecrop Spirea Australian brushcherry; Japanese boxcherry Japanese yew Yew Germander
Gentiana dahurica Geranium cinereum Gladiolus spp.** Gypsophila repens Hedera helix Helianthemum spp. Hemerocallis spp. Heucherella spp. Hibiscus rosa-sinensis**	Gentian Cranesbill Gladiolus species** Baby's breath English ivy Sunrose Daylily Coral bells Chinese Hibiscus**	Santolina virens Saxifraga spp. Scabiosa spp. Sedum spp. Spiraea bumalda Syzygium paniculatum Taxus cuspidata Taxus spp. Teucrium spp. Thalictrum dipterocarpum	Saxifrage; Purple dome Pincushion flower Stonecrop Spirea Australian brushcherry; Japanese boxcherry Japanese yew Yew Germander Meadow rue
Gentiana dahurica Geranium cinereum Gladiolus spp.** Gypsophila repens Hedera helix Helianthemum spp. Hemerocallis spp. Heucherella spp. Hibiscus rosa-sinensis** Hibiscus spp.	Gentian Cranesbill Gladiolus species** Baby's breath English ivy Sunrose Daylily Coral bells Chinese Hibiscus** Mallow; Rose of Sharon**	Santolina virens Saxifraga spp. Scabiosa spp. Sedum spp. Spiraea bumalda Syzygium paniculatum Taxus cuspidata Taxus spp. Teucrium spp. Thalictrum dipterocarpum Thuja occidentalis	Saxifrage; Purple dome Pincushion flower Stonecrop Spirea Australian brushcherry; Japanese boxcherry Japanese yew Yew Germander Meadow rue American arborvitae
Gentiana dahurica Geranium cinereum Gladiolus spp.** Gypsophila repens Hedera helix Helianthemum spp. Hemerocallis spp. Heucherella spp. Hibiscus rosa-sinensis**	Gentian Cranesbill Gladiolus species** Baby's breath English ivy Sunrose Daylily Coral bells Chinese Hibiscus**	Santolina virens Saxifraga spp. Scabiosa spp. Sedum spp. Spiraea bumalda Syzygium paniculatum Taxus cuspidata Taxus spp. Teucrium spp. Thalictrum dipterocarpum	Saxifrage; Purple dome Pincushion flower Stonecrop Spirea Australian brushcherry; Japanese boxcherry Japanese yew Yew Germander Meadow rue
Gentiana dahurica Geranium cinereum Gladiolus spp.** Gypsophila repens Hedera helix Helianthemum spp. Hemerocallis spp. Heucherella spp. Hibiscus rosa-sinensis** Hibiscus spp. Hosta plantaginea	Gentian Cranesbill Gladiolus species** Baby's breath English ivy Sunrose Daylily Coral bells Chinese Hibiscus** Mallow; Rose of Sharon** Hosta; Plantain lily	Santolina virens Saxifraga spp. Scabiosa spp. Sedum spp. Spiraea bumalda Syzygium paniculatum Taxus cuspidata Taxus spp. Teucrium spp. Thalictrum dipterocarpum Thuja occidentalis Trachelospermum asiatum	Saxifrage; Purple dome Pincushion flower Stonecrop Spirea Australian brushcherry; Japanese boxcherry Japanese yew Yew Germander Meadow rue American arborvitae Star jasmine
Gentiana dahurica Geranium cinereum Gladiolus spp.** Gypsophila repens Hedera helix Helianthemum spp. Hemerocallis spp. Heucherella spp. Hibiscus rosa-sinensis** Hibiscus spp. Hosta plantaginea Hosta sieboldiana	Gentian Cranesbill Gladiolus species** Baby's breath English ivy Sunrose Daylily Coral bells Chinese Hibiscus** Mallow; Rose of Sharon** Hosta; Plantain lily	Santolina virens Saxifraga spp. Scabiosa spp. Sedum spp. Spiraea bumalda Syzygium paniculatum Taxus cuspidata Taxus spp. Teucrium spp. Thalictrum dipterocarpum Thuja occidentalis Trachelospermum asiatum Tsuga canadensis	Saxifrage; Purple dome Pincushion flower Stonecrop Spirea Australian brushcherry; Japanese boxcherry Japanese yew Yew Germander Meadow rue American arborvitae Star jasmine
Gentiana dahurica Geranium cinereum Gladiolus spp.** Gypsophila repens Hedera helix Helianthemum spp. Hemerocallis spp. Heucherella spp. Hibiscus rosa-sinensis** Hibiscus spp. Hosta plantaginea Hosta sieboldiana Houttuynia cordata var. variegata Hydrangea macrophylla	Gentian Cranesbill Gladiolus species** Baby's breath English ivy Sunrose Daylily Coral bells Chinese Hibiscus** Mallow; Rose of Sharon** Hosta; Plantain lily	Santolina virens Saxifraga spp. Scabiosa spp. Sedum spp. Spiraea bumalda Syzygium paniculatum Taxus cuspidata Taxus spp. Teucrium spp. Thalictrum dipterocarpum Thuja occidentalis Trachelospermum asiatum	Saxifrage; Purple dome Pincushion flower Stonecrop Spirea Australian brushcherry; Japanese boxcherry Japanese yew Yew Germander Meadow rue American arborvitae Star jasmine Canada hemlock
Gentiana dahurica Geranium cinereum Gladiolus spp.** Gypsophila repens Hedera helix Helianthemum spp. Hemerocallis spp. Heucherella spp. Hibiscus rosa-sinensis** Hibiscus spp. Hosta plantaginea Hosta sieboldiana Houttuynia cordata var. variegata	Gentian Cranesbill Gladiolus species** Baby's breath English ivy Sunrose Daylily Coral bells Chinese Hibiscus** Mallow; Rose of Sharon** Hosta; Plantain lily	Santolina virens Saxifraga spp. Scabiosa spp. Sedum spp. Spiraea bumalda Syzygium paniculatum Taxus cuspidata Taxus spp. Teucrium spp. Thalictrum dipterocarpum Thuja occidentalis Trachelospermum asiatum Tsuga canadensis Tulipa spp.	Saxifrage; Purple dome Pincushion flower Stonecrop Spirea Australian brushcherry; Japanese boxcherry Japanese yew Yew Germander Meadow rue American arborvitae Star jasmine Canada hemlock Tulip
Gentiana dahurica Geranium cinereum Gladiolus spp.** Gypsophila repens Hedera helix Helianthemum spp. Hemerocallis spp. Heucherella spp. Hibiscus rosa-sinensis** Hibiscus spp. Hosta plantaginea Hosta sieboldiana Houttuynia cordata var. variegata Hydrangea macrophylla	Gentian Cranesbill Gladiolus species** Baby's breath English ivy Sunrose Daylily Coral bells Chinese Hibiscus** Mallow; Rose of Sharon** Hosta; Plantain lily Hosta Bigleaf Hydrangea	Santolina virens Saxifraga spp. Scabiosa spp. Sedum spp. Spiraea bumalda Syzygium paniculatum Taxus cuspidata Taxus spp. Teucrium spp. Thalictrum dipterocarpum Thuja occidentalis Trachelospermum asiatum Tsuga canadensis Tulipa spp. Veronica spp.	Saxifrage; Purple dome Pincushion flower Stonecrop Spirea Australian brushcherry; Japanese boxcherry Japanese yew Yew Germander Meadow rue American arborvitae Star jasmine Canada hemlock Tulip Veronica; Speedwell
Gentiana dahurica Geranium cinereum Gladiolus spp.** Gypsophila repens Hedera helix Helianthemum spp. Hemerocallis spp. Heucherella spp. Hibiscus rosa-sinensis** Hibiscus spp. Hosta plantaginea Hosta sieboldiana Houttuynia cordata var. variegata Hydrangea macrophylla Ilex cornuta**	Gentian Cranesbill Gladiolus species** Baby's breath English ivy Sunrose Daylily Coral bells Chinese Hibiscus** Mallow; Rose of Sharon** Hosta; Plantain lily Hosta Bigleaf Hydrangea Chinese holly**	Santolina virens Saxifraga spp. Scabiosa spp. Sedum spp. Spiraea bumalda Syzygium paniculatum Taxus cuspidata Taxus spp. Teucrium spp. Thalictrum dipterocarpum Thuja occidentalis Trachelospermum asiatum Tsuga canadensis Tulipa spp. Veronica spp. Viburnum japonicum Viburnum odoratissimum Viburnum plicatum	Saxifrage; Purple dome Pincushion flower Stonecrop Spirea Australian brushcherry; Japanese boxcherry Japanese yew Yew Germander Meadow rue American arborvitae Star jasmine Canada hemlock Tulip Veronica; Speedwell Japanese viburnum Sweet viburnum Japanese snowball
Gentiana dahurica Geranium cinereum Gladiolus spp.** Gypsophila repens Hedera helix Helianthemum spp. Hemerocallis spp. Heucherella spp. Hibiscus rosa-sinensis** Hibiscus spp. Hosta plantaginea Hosta sieboldiana Houttuynia cordata var. variegata Hydrangea macrophylla Ilex cornuta** Ilex crenata	Gentian Cranesbill Gladiolus species** Baby's breath English ivy Sunrose Daylily Coral bells Chinese Hibiscus** Mallow; Rose of Sharon** Hosta; Plantain lily Hosta Bigleaf Hydrangea Chinese holly** Japanese holly American holly Holly	Santolina virens Saxifraga spp. Scabiosa spp. Sedum spp. Spiraea bumalda Syzygium paniculatum Taxus cuspidata Taxus spp. Teucrium spp. Thalictrum dipterocarpum Thuja occidentalis Trachelospermum asiatum Tsuga canadensis Tulipa spp. Veronica spp. Viburnum japonicum Viburnum odoratissimum Viburnum plicatum Viburnum rigidum	Saxifrage; Purple dome Pincushion flower Stonecrop Spirea Australian brushcherry; Japanese boxcherry Japanese yew Yew Germander Meadow rue American arborvitae Star jasmine Canada hemlock Tulip Veronica; Speedwell Japanese viburnum Sweet viburnum Japanese snowball Canary island viburnum
Gentiana dahurica Geranium cinereum Gladiolus spp.** Gypsophila repens Hedera helix Helianthemum spp. Hemerocallis spp. Heucherella spp. Hibiscus rosa-sinensis** Hibiscus spp. Hosta plantaginea Hosta sieboldiana Houttuynia cordata var. variegata Hydrangea macrophylla Ilex cornuta** Ilex crenata Ilex opaca	Gentian Cranesbill Gladiolus species** Baby's breath English ivy Sunrose Daylily Coral bells Chinese Hibiscus** Mallow; Rose of Sharon** Hosta; Plantain lily Hosta Bigleaf Hydrangea Chinese holly** Japanese holly American holly	Santolina virens Saxifraga spp. Scabiosa spp. Sedum spp. Spiraea bumalda Syzygium paniculatum Taxus cuspidata Taxus spp. Teucrium spp. Thalictrum dipterocarpum Thuja occidentalis Trachelospermum asiatum Tsuga canadensis Tulipa spp. Veronica spp. Viburnum japonicum Viburnum odoratissimum Viburnum plicatum	Saxifrage; Purple dome Pincushion flower Stonecrop Spirea Australian brushcherry; Japanese boxcherry Japanese yew Yew Germander Meadow rue American arborvitae Star jasmine Canada hemlock Tulip Veronica; Speedwell Japanese viburnum Sweet viburnum Japanese snowball

Iris spp.	Iris	Viburnum tinus	Laurustinus
Jasminium nudiflorum	Winter jasmine	Viburnum trilobium	Cranberry bush
Juglans spp.*	Walnut*	Viburnum wrightii	Leatherleaf viburnum
Juniperus chinensis	Chinese juniper	Vinca major	Vinca
Juniperus conferta	Shore juniper	Vinca minor	Periwinkle
Juniperus davurica		Vitis spp.*	Grape*
Juniperus horizontalis	Creeping juniper	Weigela florida	Old fashioned Weigela
Justicia brandegeana	Shrimp plant	Yucca aloifolia	Spanish bayonet
Lagerstroemia indica	Crape myrtle	Yucca filamentosa	Yucca; Adam's needle
Lagerstroemia indica and			
hybrids	Crape myrtle		

^{*} **DO NOT** use on food producing trees, vines, or plants.

NEW PLANTINGS, REPLANTING, AND ROTATIONAL PLANTINGS

Nursery, landscape, or non-cropland 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.

CHEMIGATION INSTRUCTIONS -- OVERHEAD SPRINKLER IRRIGATION APPLICATION

- Apply this product only through an overhead sprinkler irrigation system. **DO NOT** apply this product through any other type of irrigation system.
- Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water. If you have questions about calibration, contact State Extension Service specialists, equipment manufacturers, or other experts.
- To avoid injury to foliage, make sure foliage is sufficiently wet before application or adequate irrigation is applied after application.
- If sprinkler distribution patterns do not overlap sufficiently, unacceptable weed control may result.
- If sprinkler distribution patterns overlap excessively, injury to leatherleaf ferns and other ornamentals may result.
- DO NOT connect an irrigation system (including greenhouse systems) used for pesticide application to
 public water systems unless pesticide label-prescribed safety devices for public water systems are in
 place.
- If necessary, a person knowledgeable of the chemigation system and responsible for its operation, or someone under the supervision of the responsible person, shall shut the system down arid make necessary adjustments

Operation Instructions

- 1. The system must contain a functional check valve, vacuum relief valve, and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow
- 2. The pesticide injection pipeline must contain a functional automatic, quick closing check valve to prevent the flow of fluid back toward the injection pump.
- 3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid

^{**} Not for use on container grown plants.

^{***} Use on landscape ornamentals only.

from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

- 4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- 5. The irrigation line or water. pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- 6. Systems must use a metering pump such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- 7. **DO NOT** apply when wind speed favors drift beyond the area intended for treatment.
- 8. Prepare a mixture with a minimum of 20 parts of water to 1 part this product and inject this herbicide suspension mixture into the overhead system. Injecting a larger volume of a more dilute mixture per hour will usually provide more accurate calibration of metering equipment. Maintain sufficient agitation to keep the herbicide in suspension.
- 9. Before injecting this product into the system, run the irrigation system long enough to wet the foliage, then inject the product suspension mixture in the pesticide supply tank (see number 8 above) in 1 inch of irrigation water. After the application is complete, continue the irrigation until all residues are washed off the foliage.

VEGETATION MANAGEMENT

This product may be applied to soil surfaces for preemergence control of many grass and broadleaf weeds in:

- Ornamental (does not include container or field grown ornamentals) and established perennial vegetation and wildflower plantings;
- Conifer and hardwood seedling nurseries (non-ornamental, forestry use only);
- Non-crop areas, including plantings on or surrounding:
 - Managed rights-of-way for transportation systems including roadways, roadsides, railways, and equipment yards;
 - Facilities including power substations, tank farms, pumping stations, parking and storage areas;
 and ungrazed fence rows.

Application Timing and Information

- This product will not control emerged weeds. See the **Weeds Controlled** list for the weeds that can be controlled.
- This product may be applied to newly-transplanted and established ornamentals as broadcast or overthe-top-spray. See the Tolerant Ornamental Species list for the species that are tolerant to this product.
- This product is most effective when applied to soil free of clods, weeds, and debris such as leaves and mulch.
- This product is most effective when the product is activated in the soil before weed seeds germinate and within 14 days after application.
- This product 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 RESTRICTION

DO NOT exceed a dosage of 1.5 lbs. a.i./Acre, (2.3 lbs./A of this product) per year on any use site.

USE PRECAUTIONS

To reduce injury potential:

- c. 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.
- d. After application, immediately irrigate the treated area to wash this product from plant surfaces onto soil (watering plants before application may improve the washing process).

APPLICATION SITES AND INSTRUCTIONS – Vegetation Management

SITE	APPLICATION INSTRUCTIONS
Ornamental Trees, Shrubs, Vines	 Apply as a broadcast, over-the-top, or as a directed spray. Delay application to newly-transplanted ornamentals until soil has settled around transplants.
Ornamental Bulbs and Perennial Wildflower Plantings	 This product may be applied to bulbs or perennial wildflower species listed in the section Tolerant Ornamental 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 and When to Apply – Vegetation Management

Amount to Apply (Broadcast)*	When to Apply	Comments/Instructions
1.0-2.3 lbs./A (0.37-0.83 oz./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 lbs./A per year (0.83 oz./1,000 sq. ft.).

*Note: For band application calculate amount per acre:

Band width in inches
Row width in inches

Broadcast rate = Amount to apply per acre of field

Equivalent Measurements for-Application

Lbs./A	Oz./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 – Vegetation Management

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.

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.

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in

tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

DO NOT exceed label dosage rates. This product cannot be mixed with any product containing a label prohibition against such mixing.

DO NOT combine this product in sprayer tank with pesticides, surfactants or fertilizers, unless your prior use has shown the combination physically compatible, effective and noninjurious under your conditions of use.

Tank Mix Partners

Product	Precautions/Instructions
Oxyfluorfen (use on conifers only)	Mix with this product for postemergence control of certain broadleaf weeds including malva and filaree.
Isoxaben, Simazine, S- metolachlor	See product labels for weed spectrum and tolerant ornamentals.
Glyphosate, Glyphosinate	These nonselective tank mix herbicides control many emerged annual broadleaves and grasses. Take extreme care to prevent tank mixtures with these 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.

See the **Tolerant Ornamental Species** list for the species that are tolerant to this product.

CONIFER AND HARDWOOD SEEDLING NURSERIES (NON-ORNAMENTAL, FORESTRY USE ONLY – VEGETATION MANAGEMENT

This product provides residual weed control in conifer and hardwood seedling nurseries (non-ornamental, forestry use only).

Application Timing and Information

- This product will not control emerged weeds. See the **Weeds Controlled** list for the weeds that can be controlled.
- This product is most effective when applied to soil free of clods, weeds, and debris such as leaves and mulch.
- This product is most effective when the product is activated in the soil before weed seeds germinate and within 14 days after application.
- This product is activated when the treated area receives at least 0.5 inch of irrigation or rainfall, or shallow (1 to 2 inches) mechanical incorporation.
- This product should be applied to conifer and hardwood seedling nurseries any time after the soil has settled around newly transplanted seedlings and liners.

USE RESTRICTION

DO NOT exceed a dosage of 1.5 lbs. a.i./Acre, (2.3 lbs./A of this product) per year on any use site.

How Much and When to Apply

Amount to Apply (Broadcast)*	When to Apply	Comments/Instructions
1.0-2.3 lbs./A (0.37-0.83 oz./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 lbs./A per year (0.83 oz./1,000 sq. ft.).

Tank Mixtures - Conifer Forestry Seeding Nurseries

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.

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.

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

DO NOT exceed label dosage rates. This product cannot be mixed with any product containing a label prohibition against such mixing.

DO NOT combine this product in sprayer tank with pesticides, surfactants or fertilizers, unless your prior use has shown the combination physically compatible, effective and noninjurious under your conditions of use.

Tank Mix Partners

Product	Precautions/Instructions
Oxyfluorfen (use on conifers only)	Mix with this product for postemergence control of certain broadleaf weeds including malva and filaree.

See the **Tolerant Ornamental Species** list for the species that are tolerant to this product.

STORAGE AND DISPOSAL

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

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 must be disposed of on-site or at an approved waste disposal facility. Open dumping is prohibited.

CONTAINER HANDLING: Non-refillable container. **DO NOT** reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling, if available, or dispose of empty bag in a sanitary landfill or by incineration or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes. In the event of a major spill, fire, or other emergency, call CHEMTREC (1-800-424-9300) day or night.



[subregistrant logo]

WARRANTY AND LIMITATION OF DAMAGES

Conditions of sale: To the extent consistent with applicable law, Sipcam Agro USA, Inc. warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in accordance with the directions under normal conditions of use. This warranty does not extend to the use of this product contrary to label instructions, or under abnormal use conditions, or under conditions not reasonably foreseeable to Sipcam Agro USA, Inc.

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