

60063-26

08/03/2005

1/18



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

AUG - 3 2005

John R. French, Ph.D.
Technical Director
Sipcam Agro USA, Inc.
300 Colonial Center Parkway, Suite 230
Roswell, Georgia 30076

Dear Dr. French:

Subject: Sipcam Prodiamine 65WDG
EPA Registration No. 60063-26
Application and Your Letter Dated July 13, 2005,
Request to Amend Registration To Add Vegetation
Management and Application via Chemigation

The proposed amendments to the subject pesticide product registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended; has been reviewed. The amendments proposed are acceptable provided that you:

1. Revise the proposed use sites to read as stated in the "Directions for Use" section of "Sipcam Prodiamine Technical", EPA Registration No. 60063-21, the source of prodiamine used in manufacture of this pesticide product. If you wish to make the claims for other use sites, you must first amend the claims on the labeling of the Technical product.
2. Correct the typographic error in the spelling of "instructions" in the "WPS USES" section on page 2.
3. Do not list "Vegetation Management" with use sites on pages 9 and 10. "Vegetation Management" may not be used as a use site (See 40 Code of Federal Regulations, 158, (Appendix A To Part 158). You may use the claim as a synonymy for "Weed Control", but it must be connected with one or more use-sites.

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

2/18

-2-

A stamped copy of the label is enclosed for your records. Please submit one copy of the final printed label before you release the product for shipment.

Sincerely yours,

Joanne I. Miller

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

Enclosure



3/18

SIPCAM AGRO USA, INC.

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
- Container, field-grown, and landscape ornamentals
- Conifer and hardwood seedling nurseries
- Established perennials and wildflower plantings
- Non crop areas including 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
- Christmas tree farms
- Plants grown for cut foliage production (Florida only)

ACTIVE INGREDIENT:

Prodiamine (CAS No. 29091-21-2)

OTHER INGREDIENTS:

TOTAL:

ACCEPTED
with COMMENTS
In EPA Letter Dated:

.....	65.0%
AUG - 3 2005	35.0%
Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No.	100.0%

KEEP OUT OF REACH OF CHILDREN

CAUTION

60063-26

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.)

FIRST AID	
IF SWALLOWED	<ul style="list-style-type: none"> ➤ Call a poison control center or doctor immediately for treatment advice. ➤ Have affected person sip a glass of water if able to swallow. ➤ Do not induce vomiting unless told by a poison control center or doctor. ➤ Do not give anything by mouth to an unconscious person.
IF ON SKIN OR CLOTHING	<ul style="list-style-type: none"> ➤ Take off contaminated clothing. ➤ Rinse skin immediately with plenty of water for 15 - 20 minutes. ➤ Call a poison control center or doctor for treatment advice.
IF IN EYES	<ul style="list-style-type: none"> ➤ 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 rinsing eye. ➤ Call a poison control center or doctor for treatment advice.
IF INHALED	<ul style="list-style-type: none"> ➤ 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) 900-4044 Poison Control Center (human health) (800) 345-4735 ASPCA (animal health)

EPA REG. NO. 60063-26

Net contents: 5 pounds

Cavalcade is a trademark of Sipcam Agro USA, Inc.

SIPCAM AGRO USA, INC.
 300 Colonial Center Parkway, Suite 230
 Roswell, GA 30076

4/18

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

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

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 and long pants
- Chemical resistant gloves, such as butyl rubber >14 mils, or neoprene rubber > 14 mils, or nitrile rubber >14 mils (See instructions for Category A on the EPA chemical resistance category selection chart B you want other options.)
- 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.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- 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.

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 CFF 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

WHERE TO USE

Cavalcade 65WDG 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
- Container, field-grown, and landscape ornamentals
- Conifer and hardwood seedling nurseries
- Established perennials and wildflower plantings
- Non crop areas including 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
- Christmas tree farms
- Plants grown for cut foliage production (Florida only)

HOW CAVALCADE 65WDG WORKS

Cavalcade 65WDG controls susceptible weeds by preventing growth and development of newly germinated weed seeds. Weed control is most effective with Cavalcade 65WDG 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 Cavalcade 65WDG.
2. Follow all applicable directions, restrictions, and precautions on the labels of EPA-registered tank mix partners.
3. Do not blend Cavalcade 65WDG 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

Cavalcade 65WDG must be mixed thoroughly in the spray tank to ensure uniform application. Follow these steps:

1. Fill the spray tank ¼ full with clean water or fluid fertilizer only.
2. Start agitation and check to ensure it is working properly.
3. Add Cavalcade 65WDG 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 Cavalcade 65WDG 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.

4/18

Cavalcade 65WDG

Tank Mixing Cavalcade 65WDG

Cavalcade 65WDG 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 Cavalcade 65WDG 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 Cavalcade 65WDG 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 lb./A the Cavalcade 65WDG 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 Formulations	Rate Per		Level Teaspoons
	Acre	1,000 sq. ft.	
Cavalcade 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 Cavalcade 65WDG 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.
4. Add flowable liquids (FL) or suspension concentrates (SC).
5. Add emulsifiable concentrates (EC) last.

Application

Apply Cavalcade 65WDG 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.

7/18

Weeds Controlled

When used as directed in this label, Cavalcade 65WDG 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 Cavalcade 65WDG 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)**.

²To control this weed, apply Cavalcade 65WDG 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, Cavalcade 65WDG 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.

⁴Suppression only.

⁵In any area a single application of 1-2.3 lbs./A of Cavalcade 65WDG 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.

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.

8/12

Cavalcade 65WDG

ESTABLISHED TURF

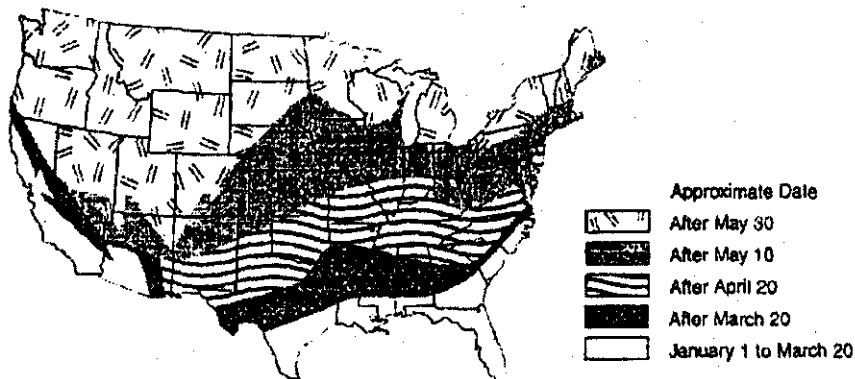
Cavalcade 65WDG is a preemergence herbicide that, when properly applied, will control certain grass and broadleaf weeds in established turfgrasses including:

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

The maximum amount of Cavalcade 65WDG 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, Cavalcade 65WDG 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 Cavalcade 65WDG 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 Cavalcade 65WDG 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 Cavalcade 65WDG to golf course putting greens.**
- 6) If the depth of the creeping bentgrass root system becomes shallow and root tips contact Cavalcade 65WDG-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 Cavalcade 65WDG to creeping bentgrass less than 0.5 inch in height.

Application Timing and Rate-Turfgrass

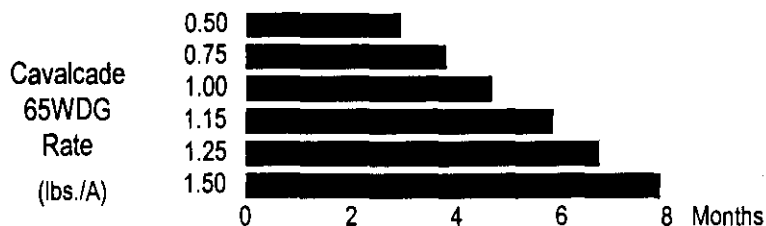
Cavalcade 65WDG may be applied as a single application or in sequential applications to control weeds germinating throughout the year. All applications should be made before target weeds germinate.

Cavalcade 65WDG will not control weeds that have already emerged.

The amount of Cavalcade 65WDG 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 Crabgrass Control*



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

Annual Use Rates-Turfgrass

Cavalcade 65WDG 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 Cavalcade 65WDG Per Calendar Year by Turfgrass Species ^{1'}

Turf Species	lbs. Product/Acre	oz. Product/1,000 sq. ft.
Bermuda grass ^{2'} Bahigrass 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'}	0.185-.55
Fine Fescue	0.5-1.15 ^{1'}	0.185-0.42
Creeping Bentgrass (0.5 inches or more in height) ^{4'}	.05-1.00 ^{1'}	0.185-0.37

^{1'}Cavalcade 65WDG may be applied more than once a year as long as the total amount applied is not greater than the maximum application rate for each turf species. All applications must be made before weed seeds germinate.

^{2'}May be used on newly-sprigged or plugged Bermudagrass at rates not to exceed 0.80 lb./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 Cavalcade 65WDG to creeping bentgrass mowed at less than 0.5 inch in height.

When to Apply Cavalcade 65WDG After Overseeding Turf

Injury to desirable seedlings is likely if Cavalcade 65WDG 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 Cavalcade 65WDG.

When to Overseed After Application-All States*

Cavalcade 65WDG 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 Annuia Control in Established Bermudagrass Overseeded with Perennial Ryegrass (AZ, CA, NV, and TX only)".

Amount of Cavalcade 65WDG Lbs. Product/A	Interval (Months) Before Overseeding		
	North	Transition	South
.75	4	4	4
1.00	5	4	4
1.15	6	5	5
1.25	-	6	6
1.50	-	7	7
1.75	-	-	9
2.00	-	-	10
2.30	-	-	12

10/18

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

11/18

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

Cavalcade 65WDG 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;
- On or surrounding managed rights-of-way for transportation systems including roadways, roadsides, railways, and equipment yards;
- On grounds of utilities such as power substations, tank farms, pumping stations, parking and storage areas;
- On ungrazed fence rows.

Application Timing and Information

Cavalcade 65WDG:

1. Will not control emerged weeds.
2. May be applied to newly-transplanted and established ornamentals as 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 Cavalcade 65WDG may temporarily injure new growth of desirable plants. To reduce the possibility of injury at this time, wait to apply Cavalcade 65WDG 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 other-the-top application.
- b. After application, immediately irrigate the treated area to wash Cavalcade 65WDG from plant surfaces onto soil (watering plants before application may improve the washing process).

Ornamentals, Christmas Tree Farms and Vegetation Management – Application Sites and Instructions

Site	Application Instructions
Newly-Transplanted container or Field Nursery Stock	<ol style="list-style-type: none"> 1. Delay application until soil has settled around transplants. 2. Water transplants thoroughly before application. 3. Apply after cuttings from roots and are established. 4. To avoid inhibition of the tissue union, apply before budding/grafting or after buds/grafts have taken.
Established Container, Field Nursery Stock, or Landscape Plants	Apply at any time as a broadcast, over-the-top, or directed spray.
Landscape (or Ornamental) Plantings, and for Vegetation Management	<ol style="list-style-type: none"> 1. Apply as a broadcast, over-the-top, or as a directed spray. 2. Delay application to newly-transplanted ornamentals until soil has settled around transplants.
Bare Ground Application for Container Placement	<ol style="list-style-type: none"> 1. Apply to soil (including mulch, gravel, wood chips, or other permeable base) upon which containerized ornamentals are placed. 2. After Cavalcade 65WDG is applied, perform shallow cultivation or hand weeding only, or avoid disturbing the herbicide barrier.
In Shade Houses and Uncovered Polyhouses	After Cavalcade 65WDG 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	<ol style="list-style-type: none"> 1. Cavalcade 65WDG may be applied to bulbs or perennial wildflower species listed in the section Tolerant Ornamental Species. 2. Apply before or after bulbs emerge but before bulbs bloom and weeds emerge. In wildflowers, a postemergence herbicide labeled for wildflowers may be needed to control weeds that have already emerged.

How Much and When to Apply on Ornamentals and for Vegetation Management

Amount to Apply (Broadcast)*	When to Apply	Comments/Instructions
1.0-2.3 lbs./A or 0.37-0.83 oz./1,000 sq. ft.	In fall or spring before weeds germinate or after weeds are removed.	<ol style="list-style-type: none"> 1. Use the higher rate for longer control. 2. Cavalcade 65WDG 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.

*Note: For band application calculate amount per acre:

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

Equivalent Measurements for Cavalcade 65WDG

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 Ornamentals

Cavalcade 65WDG 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 Cavalcade 65WDG are for use only in states where the tank mix partner(s), application site, and intended use pattern are registered. Follow the label(s) 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 Cavalcade 65WDG on Ornamentals

Product	Precautions/Instructions
Goal [®] (use on conifers only)	Mix with Cavalcade 65WDG 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 [®] or other glyphosate-based products ¹ , Finale [®]	<p>These nonselective tank mix herbicides control most emerged annual broadleaves and grasses.</p> <p>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.</p> <p>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.</p>

¹Roundup is one brand of a nonselective herbicide containing glyphosate. Other glyphosate products may also be used.

Tolerant Ornamental Species

Cavalcade 65WDG will not harm most trees, shrubs, vines, and flowers. The species listed below in Table 2 are tolerant to Cavalcade 65WDG. Cavalcade 65WDG 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 Cavalcade 65WDG.

Table 2. Tolerant Ornamental Species

<u>Scientific name</u>	<u>Common name</u>
<i>Abelia grandiflora</i>	Abelia
<i>Abies</i> spp.	Fir species (Balsam, Fraser, Noble, etc.)
<i>Acer palmatum</i>	Japanese maple
<i>Acer platanoides</i>	Norway maple
<i>Achillea</i> spp.	Yarrow
<i>Actinidia chinensis</i>	Kiwi*
<i>Agapanthus orientalis</i>	Lily of the Nile; African lily
<i>Akebia quintata</i>	Five-Leaf or Chocolate Vine
<i>Allium cernuum</i>	Lady's Leek; Nodding Onion
<i>Anemone hybrida</i>	Japanese Anemone
<i>Aquilegia</i> spp.	Columbine
<i>Arctostaphylos densiflora</i>	Vine hill manzanita
<i>Arctotheca calendula</i>	Cape weed
<i>Aucuba japonica</i>	Japanese Aucuba
<i>Artemisia</i> spp.	Wormwood; Silver Mound; Castle
<i>Aster</i> spp.	Aster
<i>Athyrium filix-femina</i>	Lady Fern
<i>Begonia</i> spp.	Fibrous Begonia
<i>Berberis gladwynesis</i>	Barberry
<i>Berberis julianae</i>	Wintergreen barberry
<i>Berberis mentorensis</i>	Mentor barberry
<i>Berberis thunbergii</i>	Japanese barberry
<i>Berberis verruculosa</i>	Warty barberry
<i>Bergenia cordifolia</i>	
<i>Boltonia asteroides</i>	Snowbank
<i>Bougainvillea</i> spp.	Bougainvillea
<i>Buddleia davidii</i>	Butterfly-bush
<i>Buxus microphylla</i>	Japanese boxwood
<i>Callistemon citrinus</i>	Crimson bottlebrush
<i>Callistemon viminalis</i>	Weeping bottlebrush
<i>Calluna vulgaris</i>	Scotch heather
<i>Campanula carpatica</i>	Tussock bellflower
<i>Campsis X tagliabuana</i>	Trumpet creeper, Trumpet flower
<i>Carpobrotus edulis</i>	Hottentot fig; Ice plant
<i>Cassia artemisoides</i>	Feathery Cassia
<i>Ceanothus rigidus</i>	Wild lilac
<i>Ceratostigma plumbaginoides</i>	
<i>Chamaecyparis pisifera</i>	False cypress
<i>Chrysanthemum nipponicum</i>	
<i>Cleyera japonica</i>	Cleyera
<i>Citrus</i> spp.*	Ornamental orange, lemon, lime, etc.*
<i>Coreopsis</i> spp.	Coreopsis (Calliopsis): Early Sunrise, Moonbeam
<i>Cornus stolonifera</i>	American dogwood
<i>Cortaderia selloana</i>	Pampas grass
<i>Cotoneaster apiculatus</i>	Cranberry Cotoneaster
<i>Cotoneaster buxifolius</i>	Cotoneaster
<i>Cotoneaster dammeri</i>	Bearberry Cotoneaster
<i>Cotoneaster microphyllus</i>	Rockspray Cotoneaster
<i>Crataegus</i> spp.	Hawthorn
<i>Cupressus sempervirens</i>	Italian cypress
<i>Crocosmia</i> spp.	Lucifer
<i>Delosperma</i> spp.	Ice plant
<i>Delphinium</i> spp.	Larkspur
<i>Dianthus deltoidea</i>	Dianthus; Maiden pinks
<i>Dianthus gratianopolitanus</i>	Cheddar pink

14/18

<i>Dodonea viscosa</i>	Hop bush
<i>Echinacea purpurea</i>	Coneflower
<i>Elaeagnus pungens</i>	Silverberry
<i>Euonymus fortunei</i>	Wintercreeper
<i>Euonymus japonica</i>	Japanese spindle tree; Evergreen Euonymus
<i>Euonymus kiautschovica</i>	Spreading Euonymus
<i>Fatsia japonica</i>	Japanese aralia
<i>Forsythia intermedia</i>	Border Forsythia
<i>Forsythia suspense</i>	Weeping Forsythia
<i>Forsythia viridissima</i>	Greenstem Forsythia
<i>Gaillardia</i> spp.	Gaillardia; Blanket flower
<i>Gardenia jasminoides</i>	Gardenia; Cape-jasmine
<i>Gaura</i> spp.	Gaura
<i>Gentiana dahlurica</i>	Gentian
<i>Geranium cinereum</i>	Cranesbill
<i>Gladiolus</i> spp.**	Gladiolus species**
<i>Gypsophila repens</i>	Baby's breath
<i>Hedera helix</i>	English ivy
<i>Helianthemum</i> spp.	Sunrose
<i>Hemerocallis</i> spp.	Daylily
<i>Heucherella</i> spp.	Coral bells
<i>Hibiscus rosa-sinensis</i> **	Chinese Hibiscus**
<i>Hibiscus</i> spp.	Mallow; Rose of Sharon**
<i>Hosta plantaginea</i>	Hosta; Plantain lily
<i>Hosta sieboldiana</i>	Hosta
<i>Houttuynia cordata</i> var. <i>variegata</i>	
<i>Hydrangea macrophylla</i>	Bigleaf Hydrangea
<i>Ilex cornuta</i> **	Chinese holly**
<i>Ilex crenata</i>	Japanese holly
<i>Ilex opaca</i>	American holly
<i>Ilex pernyi</i>	Holly
<i>Ilex vomitoria</i>	Yaupon holly
<i>Inula ensifolia</i>	
<i>Iris</i> spp.	Iris
<i>Jasminium nudiflorum</i>	Winter jasmine
<i>Juglans</i> spp.*	Walnut*
<i>Juniperus chinensis</i>	Chinese juniper
<i>Juniperus conferta</i>	Shore juniper
<i>Juniperus davurica</i>	
<i>Juniperus horizontalis</i>	Creeping juniper
<i>Justicia brandegeana</i>	Shrimp plant
<i>Lagerstroemia indica</i>	Crape myrtle
<i>Lagerstroemia indica</i> and hybrids	Crape myrtle
<i>Lantana montevidensis</i>	Weeping Lantana
<i>Lavender</i> spp.	Lavender; Munstead
<i>Leontopodium alpinum</i>	Edelweiss
<i>Ligustrum amurense</i>	Amur privet
<i>Ligustrum japonicum</i>	Japanese privet
<i>Ligustrum lucidum</i>	Glossy privet; Wax-leaf
<i>Ligustrum sinense</i>	Chinese privet
<i>Lilium</i> spp.	Lily
<i>Liriope muscari</i>	Liriope
<i>Liriope spicata</i>	Liriope, creeping
<i>Lobelia cardinalis</i>	Cardinal flower; Indian pink
<i>Lonicera japonica</i>	Japanese honeysuckle
<i>Lonicera tatarica</i>	Tatarian honeysuckle
<i>Loropetalum chinense</i>	Loropetalum
<i>Lythrum</i> spp.	Loosestrife
<i>Magnolia</i> spp.**	Magnolia

<i>Maleophora luteola</i>	Ice plant
<i>Malus</i> spp.*	Crabapple*
<i>Miscanthus sinensis</i> **	Yaku Jima**, Silberfeder**
<i>Nandina domestica</i>	Heavenly bamboo
<i>Narcissus</i> spp.**	Narcissus, Daffodil
<i>Nerium</i> spp.	Oleander
<i>Oenothera missouriensis</i>	Evening primrose
<i>Olea europaea</i> *	Olive*
<i>Ophiopogon japonicus</i> **	Mondo grass**
<i>Osmanthus heterophyllus</i>	Osmanthus; False holly
<i>Osteospermum fruticosum</i>	Trailing African daisy
<i>Oxydendron luteum</i>	Sourwood
<i>Paeonia suffruticosa</i>	Tree peony
<i>Pennisetum setaceum</i> **	Fountain grass**
<i>Perovskia atriplicifolia</i>	
<i>Persea americana</i> *	Avocado*
<i>Photinia fraseri</i>	Photinia; Redtip
<i>Physostegia virginiana</i>	False dragonhead
<i>Picea</i> spp.**	Spruces (Colorado Blue, Norway, etc.)
<i>Pieris japonica</i>	Japanese andromeda; Lily-of-the-valley shrub
<i>Pinus brutia</i>	Calabrian pine
<i>Pinus canariensis</i>	Canary island pine
<i>Pinus elliotii</i>	Slash pine
<i>Pinus halepensis</i>	Aleppo pine
<i>Pinus nigra</i>	Austrian black pine
<i>Pinus palustris</i>	Longleaf pine
<i>Pinus radiata</i>	Monterey pine
<i>Pinus strobus</i>	Eastern white pine
<i>Pinus sylvestris</i>	Scotch pine
<i>Pinus taeda</i>	Loblolly pine
<i>Pinus thunbergiana</i>	Japanese black pine
<i>Pinus virginiana</i>	Virginia pine
<i>Pistacia</i> spp.*	Pistachio*
<i>Pittosporum rhombifolium</i>	Queensland Pittosporum
<i>Pittosporum tobira</i>	Japanese Pittosporum
<i>Podocarpus macrophyllus</i>	Japanese yew
<i>Prunus laurocerasus</i>	English laurel
<i>Prunus</i> spp.*	Almond, Apricot, Nectarine, Peach, Plum, and Prune*
<i>Pseudotsuga menziesii</i> **	Douglas fir**
<i>Pyracantha coccinea</i>	Firethorn, scarlet
<i>Pyracantha fortuneana</i>	Firethorn
<i>Pyracantha koidzumii</i>	Firethorn
<i>Pyrus</i> spp.	Pear spp., including 'Bradford'
<i>Quercus rubra</i>	Red oak
<i>Quercus shumardii</i>	Shumard oak
<i>Raphiolepis indica</i>	Indian hawthorne
<i>Raphiolepis umbellata</i>	Yedda hawthorne
<i>Rhododendron</i> spp.	Rhododendrons, Azaleas
<i>Rosa banksiae</i>	Lady Banks rose
<i>Rudbeckia</i> spp.	Black-eyed Susan
<i>Rumohra adiantiformis</i>	Leatherleaf Fern
<i>Santolina virens</i>	
<i>Saxifraga</i> spp.	Saxifrage; Purple dome
<i>Scabiosa</i> spp.	Pincushion flower
<i>Sedum</i> spp.	Stonecrop
<i>Spiraea bumalda</i>	Spirea
<i>Syzygium paniculatum</i>	Australian brushcherry; Japanese boxcherry
<i>Taxus cuspidata</i>	Japanese yew
<i>Taxus</i> spp.	Yew

14/19

Cavalcade 65WDG

<i>Teucrium spp.</i>	Germander
<i>Thalictrum dipterocarpum</i>	Meadow rue
<i>Thuja occidentalis</i>	American arborvitae
<i>Trachelospermum asiaticum</i>	Star jasmine
<i>Tsuga canadensis</i>	Canada hemlock
<i>Tulipa spp.</i>	Tulip
<i>Veronica spp.</i>	Veronica; Speedwell
<i>Viburnum japonicum</i>	Japanese viburnum
<i>Viburnum odoratissimum</i>	Sweet viburnum
<i>Viburnum plicatum</i>	Japanese snowball
<i>Viburnum rigidum</i>	Canary island viburnum
<i>Viburnum japonicum</i>	Japanese viburnum
<i>Viburnum suspensum</i>	Arrowood viburnum
<i>Viburnum tinus</i>	Laurustinus
<i>Viburnum trilobium</i>	Cranberry bush
<i>Viburnum wrightii</i>	Leatherleaf viburnum
<i>Vinca major</i>	Vinca
<i>Vinca minor</i>	Periwinkle
<i>Vitis spp.*</i>	Grape*
<i>Weigela florida</i>	Old fashioned Weigela
<i>Yucca aloifolia</i>	Spanish bayonet
<i>Yucca filamentosa</i>	Yucca; Adam's needle

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

** Not for use on container grown plants.

NEW PLANTINGS, REPLANTING, AND ROTATIONAL PLANTINGS

Nursery, landscape, or non-cropland areas treated with Cavalcade 65WDG 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 and 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 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 Cavalcade 65WDG 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 Cavalcade 65WDG into the system, run the irrigation system long enough to wet the foliage, then inject Cavalcade 65WDG 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.

18/18

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited.

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

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

CONTAINER DISPOSAL:

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

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

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 (phone: 1-800-424-9300) day or night.

WARRANTY AND LIMITATION OF DAMAGES

CONDITIONS OF SALE: Sipcarn 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 Sipcarn Agro USA, Inc.. **SIPCARN AGRO USA, INC. DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF FITNESS OR MERCHANTABILITY. SIPCARN AGRO USA, INC. SHALL NOT BE LIABLE FOR CONSEQUENTIAL, SPECIAL, OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, AND SIPCARN AGRO USA, INC.'S SOLE LIABILITY AND BUYER'S AND USER'S EXCLUSIVE REMEDY SHALL BE LIMITED TO THE REFUND OF THE PURCHASE PRICE. BUYER AND USER ACKNOWLEDGE AND ASSUME ALL RISKS AND LIABILITY RESULTING FROM HANDLING, STORAGE AND USE OF THIS PRODUCT. SIPCARN AGRO USA, INC. DOES NOT AUTHORIZE ANY AGENT OR REPRESENTATIVE TO MAKE ANY OTHER WARRANTY, GUARANTEE OR REPRESENTATION CONCERNING THIS PRODUCT.**

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