

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

Jeffrey Birk, Ph.D.
BASF Corporation
26 Davis Dr.
Research Triangle Park, NC 27709

APR 1 1 2013

Subject:

Notifications; Per PR-Notice 98-10

Pendulum 0.66% Plus Fertilizer
Pendulum 1.15% Plus Fertilizer
Pendulum 0.5% Plus Fertilizer
Pendulum 0.86% Plus Fertilizer
Pendulum 0.86% Plus Fertilizer
Pendulum 0.86% Plus Fertilizer
Pendulum 0.86% Plus Fertilizer

Dear Dr. Birk:

The Agency is in receipt of your Applications for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 dated April 9, 2013 for the products referenced above. The Registration Division (RD) has conducted a review of these requests for applicability under PRN 98-10 and finds that the actions requested fall within the scope of PRN 98-10. The labels submitted with the applications have been stamped "Notification" and will be placed in our records.

If you have any questions regarding this letter, please contact me at 703 306-0415 or <a href="mailto:davis.kable@epa.gov">davis.kable@epa.gov</a>.

Sincerely,

Kable Bo Davis Product Manager 25 Herbicide Branch

Registration Division (7505P)

Please read instructions on	reverse before comple	eting form.		Form Appro	ved. OMB No.	2070-0060	. Approval expires 2-28-95
<b>≎EPA</b>	Environmenta	United States Al Protectio ington, DC 204	•		Registr Amend  Other		OPP Identifier Number
<u> </u>		Applicatio	n for Pestici	de - Section	on I		
1. Company/Product Numb 241-423	er		2. EPA Kable	Product Menag Davis	er	3, Pro	posed Classification None Restricted
4. Company/Product (Name) Pendulum 0.5% Plus Fertilizer		PM# 25					
5. Name and Address of Applicant (Include ZIP Code)  BASF 26 Davis Drive  Research Triangle Park, NC 27709  Check if this is a new address		6. Expedited Reveiw. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to:  EPA Reg. No.  Product Name					
			Section -				
Amendment - Explain below.  Resubmission in response to Agency letter dated  Notification - Explain below.  Final printed labels in repsonse to Agency letter dated  Agency letter dated  "Me Too" Application.  Other - Explain below.  APR 1 2013							
Notification for Pendulum 0. provisions of PR Notice 98- formula of this product. I un notification is not consistent	Explanation: Use additional page(s) if necessary. (For section I and Section II.)  Notification for Pendulum 0.5% Plus Fertilizer (241-423) in response to email request for minor change, dated 3-14-13. This notification is consistent with the provisions of PR Notice 98-10 and EPA regulations at 40 CFR 152.46, and no other changes have been made to the labeling or the confidential statement of formula of this product. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make any false statement to EPA. I further understand that if this notification is not consistent with violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA. Contact Jeff Birk at 919-547-2622 (phone), 919-547-2850 (fax) or by Email at jeffrey.birk@basf.com						
			Section - I	1		<del> </del>	
1. Material This Product Wi	II Be Packaged In:		<del></del>				
Child-Resistant Packaging Yes No * Certification must	Unit Packaging Yes No If "Yes"	No. per	Water Soluble P Yes No If "Yes"	No. per	2. Type of	Metal Plastic Glass Paper	
be submitted	Unit Packaging wgt.	. container	Package wgt	container		_ Other (Sp	ecity)
3. Location of Net Contents	Information Container	4. Size(s) Reta	il Container	5.	Location of La	bel Direction	\$
6. Manner in Which Label is		Lithogra Paper g Stencile	aph glued	Other _			
Section - IV							
1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)							
<del></del>		Title Telephone No. (Include Regulatory Manager 919-547-2622		No. (Include Area Code) 322			
Certification I certify that the statements I have made on this form and all I acknowledge that any knowlingly false or misleading statem both under applicable law.			all attachments the			mplete.	6. Date Application Received (Stamped)
2. Signature		1 American I	3. Title Regulatory Manager		į		
4. Typed Name		5	. Date				
Jeffrey H. Birk	·		Apr	il 9, 2013			



# The Chemical Company

April 9, 2013

U.S. Environmental Protection Agency Office of Pesticide Programs (H-7505 P) Document Processing Desk 7504P (NOTIF) One Potomac Yard 2777 S. Crystal Drive Arlington, VA 22202 Attn: Mr. Kable Davis (PM 25)

RE:

Pendulum® 0.5% Plus Fertilizer (EPA Reg. No. 241-423)

**Label Notification** 

Dear Mr. Davis:

BASF is hereby submitting a label notification for Pendulum 0.5% Plus Fertilizer (241-423) in response to your email from March 14, 2013 deleting the following inappropriate statement from page 18.

**Pendulum 0.5% Plus Fertilizer** may be used on plant species not listed on this label. The suitability for such uses should be determined by treating a small number of such plants at the specified rate. Treated plants should be evaluated 1-2 months following treatment for possible injury. TO THE FULLEST EXTENT PERMITTED BY LAW, THE USER ASSUMES RESPONSIBILITY FOR ANY CROP DAMAGE OR OTHER LIABILITY.

## Enclosed please find:

- Application form 8570-1
- Email dated March 14, 2013
- Pendulum 0.5% Plus Fertilizer label.

No PRIA fee is required for this notification.

Thank you for your assistance with this matter. If you should have any questions, please feel free to call me at (919) 547-2622.

Regards,

Jeffrey H. Birk, Ph.D. Regulatory Manager Phone 919-547-2622

Fax: 919-547-2850

Email: jeffrey.birk@basf.com

# NOTIFICATION APR 1 1 2013

Group 3 Herbicide

# Pendulum® 0.5% Plus Fertilizer Preemergence Weed Control

0.5% pendimethalin + X-X-X Fertilizer

# FOR USE ON TURFGRASSES AND ESTABLISHED LANDSCAPE ORNAMENTALS NOT FOR USE IN ORGANIC CROP AND FOOD PRODUCTION IN CALIFORNIA

Active Ingredient: pendimethalin: N-(1-ethylpropyl)-3,4-dimethyl-2,6-dinitrober Other Ingredients:	
Total:	100.0%
EPA Reg. No. 241-423	EPA Est. No.
GUARANTEED AN	NALYSIS
Total Nitrogen (N)X.X % Ammoniacal Nitrogen X.X % Urea Nitrogen	X.X%
Available Phosphoric Acid (P <sub>2</sub> O <sub>5</sub> )	X.X%
Potassium Sulfate (K <sub>2</sub> SO <sub>4</sub> )	X.X%

# KEEP OUT OF REACH OF CHILDREN CAUTION/PRECAUCION

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

Have the product container or label with you when calling a poison control center or doctor or going for treatment.

In case of an emergency endangering life or property involving this product, call day or night 1-800-832-HELP (4357).

See inside for additional First Aid, Precautionary Statements, Directions For Use, Conditions of Sale and Warranty, and state-specific crop and/or use site restrictions.

**Net Contents:** 

BASF Corporation 26 Davis Drive Research Triangle Park, NC 27709



0 0 0 0 0 0 0 0

	FIRST AID
If swallowed	<ul> <li>Call a poison control center or doctor immediately for treatment advice.</li> <li>Have a person sip a glass of water if able to swallow.</li> <li>DO NOT induce vomiting unless told to do so by a poison control center or doctor.</li> <li>DO NOT give anything by mouth to an unconscious person.</li> </ul>
If on skin or clothing	<ul> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15 to 20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
If in eyes	<ul> <li>Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes; then continue rinsing eyes.</li> <li>Call a poison control center or doctor for advice.</li> </ul>
If inhaled	<ul> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or ambulance; then give artificial respiration, preferably by mouth to mouth if possible.</li> <li>Call a poison control center or doctor for advice.</li> </ul>
	HOTLINE NUMBER
Have the product contain	ner or label with you when calling a poison control center or doctor or going for

# **Precautionary Statements**

treatment. You may also contact BASF Corporation for emergency medical treatment information:

## **Hazards to Humans and Domestic Animals**

**CAUTION.** Harmful if swallowed or absorbed through skin. Causes eye irritation. Avoid contact with skin, eyes, or clothing. Avoid breathing dust.

# Personal Protective Equipment (PPE)

Some materials that are chemically resistant to this product are listed below. If you want more options, follow the instructions for **Category A** on an EPA chemical-resistance category selection chart.

## Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of waterproof material, such as butyl rubber ≥14 mils, nitrile rubber ≥14 mils, or neoprene rubber ≥14 mils
- · Shoes plus socks
- Protective eyewear

1-800-832-HELP (4357).

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

# **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.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

#### **Environmental Hazards**

This product is 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 aquatic sites. **DO NOT** contaminate water when disposing of equipment washwaters or rinsate.

#### For Florida Only:

- DO NOT apply near water, storm drains or drainage ditches.
- DO NOT apply if heavy rain is expected.
- Apply only to lawn, and sweep any product that lands on the driveway, sidewalk or street, back onto lawn.

# **Directions For Use**

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

This label must be in the possession of the user at time of pesticide application.

BASF Corporation does not recommend or authorize the use of this product in manufacturing, processing or preparing custom blends with other products for application to turf or ornamentals.

DO NOT apply Pendulum® 0.5% Plus Fertilizer in greenhouses, shadehouses or other enclosed structures.

NOT FOR USE on grass grown for commercial seed production.

**DO NOT** apply this product through any irrigation system. Keep children and pets out of treated area until dust has settled.

**DO NOT** allow dust to drift from the application site and contact people, structures people occupy at any time and the associated property, parks and recreation areas, nontarget crops, aquatic and wetland areas, woodlands, pasture, rangeland, or animals.

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

## AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, 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 24 hours.

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
- Chemical-resistant gloves made of waterproof material, such as butyl rubber ≥14 mils, nitrile rubber ≥14 mils, or neoprene rubber ≥14 mils
- · Shoes plus socks

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## NONAGRICULTURAL USE REQUIREMENTS

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

DO NOT enter or allow others to enter the treated area until dusts have settled.

FAILURE TO FOLLOW THE DIRECTIONS FOR USE AND PRECAUTIONS ON THIS LABEL MAY RESULT IN POOR WEED CONTROL, CROP INJURY, OR RESIDUES.

#### STORAGE AND DISPOSAL

DO NOT contaminate water, food, or feed by storage or disposal.

# **Pesticide Storage**

DO NOT store above 120° F. Store in original container and keep closed. Store in a cool, dry place.

## Pesticide Disposal

Wastes resulting from the use of this product may be disposed of on-site or at an approved waste disposal facility.

## **Container Handling**

(for paper or plastic bags)

**Nonrefillable Container. DO NOT** reuse or refill this container. After completely emptying container into application equipment, dispose of empty bag in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

Observe all cautions and limitations on this label and the labels of products used in combination with **Pendulum® 0.5% Plus Fertilizer**. The use of **Pendulum 0.5% Plus Fertilizer** not consistent with this label can result in injury to crops, animals, or persons. Keep containers closed to avoid spills and contamination.

#### **Product Information**

Pendulum 0.5% Plus Fertilizer is a combination preemergence herbicide and fertilizer formulated to provide control of most annual grasses and certain broadleaf weeds found in any turfgrass site (lawns, sod, turf areas). Examples of such sites include, but are not limited to: golf courses, lawns in residential, commercial establishments, or grounds around military or other institutions, parks, airports, roadsides, schools or cemeteries; athletic fields or recreational areas; prairiegrass areas; and sod farms.

Pendulum 0.5% Plus Fertilizer can be used around established ornamentals in the landscape and in established wildflower plantings. Pendulum 0.5% Plus Fertilizer may be used for hardwood and conifer regeneration on conservation reserve program land or similar areas.

Pendulum 0.5% Plus Fertilizer is labeled for use on the following turfgrass species:

Kentucky bluegrass, perennial ryegrass, fine fescue, tall fescue, bentgrass, *Poa annua* (except putting congreens and tees), Bermudagrass, St. Augustinegrass, Bahiagrass, centipedegrass, zoysiagrass, and blands of these grasses.

Pendulum 0.5% Plus Fertilizer controls weeds as they germinate but will not control established weeds. Therefore, areas to be treated should be free of established weeds. Unusually cold, excessively wet, or not and dry conditions that delay germination or extend germination over a long period of time can reduce weed control.

# **Application Instructions**

Apply product uniformly at the specified rate using a properly calibrated spreader. The efficacy of **Pendulum® 0.5% Plus Fertilizer** will be improved if the application is followed by 1/2 inch of rainfall or its equivalent in sprinkler irrigation. This will remove the product from the turfgrass foliage and establish a preemergence herbicide barrier in the soil. If **Pendulum 0.5% Plus Fertilizer** is not activated by rainfall or irrigation within 30 days, erratic weed control may result.

Avoid contact of product with porous surfaces such as driveways, stone, or wood. Removing particles will help prevent staining.

Pendulum 0.5% Plus Fertilizer can be applied before or after postemergence herbicides used to control emerged weeds in turfgrasses. For annual grass control, applications can be made with Segment® herbicide, Acclaim Extra® herbicide, or MSMA-containing products to control emerged weeds. Broadleaf weeds can be controlled using Trimec® herbicide; Three-Way™ herbicide; 2,4-D; and other similar products.

Applied according to label directions and under normal growing conditions, **Pendulum 0.5% Plus Fertilizer** will not cause injury to desirable plants. Overapplication can result in stand loss, plant injury, or soil residues. Uneven application can decrease weed control or cause plant injury.

Seedling diseases, cold weather, excessive moisture, high soil pH, high soil salt concentration, or drought can weaken seedlings and plants and increase the possibility of plant damage from **Pendulum 0.5% Plus Fertilizer**.

Apply with properly calibrated spreader equipment to provide uniform distribution. Check application routinely to determine proper calibration. Avoid overlaps that will increase rates above those specified. Avoid application when winds may cause drift.

# **Spreader Settings**

Spreader Type	<u>Settings</u>	
Χ	XXX	
Υ	XXX	
Z	XXX	

# **Maximum Application Rate by Use Site**

Use Site	lbs Product/A	lbs Product/1000 ft <sup>2</sup>	lbs a.i./A
Residential and Sod Farm Turf	400	9.2	2.0
Golf Course, Commercial and other Non-residential Turf Sites	600	13.8	3.0

Residential is defined as turf in any residential situation as well as home lawns, schools, parks and playgrounds.

## Florida Specific Requirements for Fertilizer Use

For applications to sports turf at golf courses, parks and athletic fields:

**DO NOT** exceed fertilizer rates recommended in the document titled SL 191, "Recommendations for N, P, K and Mg for Golf Course and Athletic Field Fertilization Based on Mehlich I Extractant" dated March 2007. Copies may be downloaded from http://edi.ifas.ufl.edu/SS404.

Follow "Best Management Practices for the Enhancement of Environmental Quality on Florida Golf e c c Courses," published by the Florida Department of Environmental Protection, dated January 2007. Gapies may be downloaded from http://www.dep.state.fl.us/water/nonpoint/pubs.htm.

For all fertilizer uses other than as a specialty fertilizer on urban turf:

**DO NOT** exceed rates recommended in the document titled Best Management Practices for Protection of Water Resources in Florida, June 2002, Florida Green Industries. This document may be downloaded from http://www.dep.state.fl.us/water/nonpoint/docs/nonpoint/BMP Book.

5

# Weeds Controlled

**Pendulum® 0.5% Plus Fertilizer** provides preemergence control of weed species listed. Applications can be made around and over the top of ornamentals and to sites listed on this label.

# **Grasses Controlled**

0,43033 00,1410,154		
Common Name	Scientific Name	
Barnyardgrass	Echinochloa crus-galli	
Bluegrass, Annual	Poa annua	
Crabgrass	<i>Digitaria</i> spp.	
Crowfootgrass	Dactyloctenium aegyptium	
Foxtail, Giant	Setaria faberi	
Foxtail, Green	Setaria viridis	
Foxtail, Yellow	Setaria glauca	
Goosegrass	Eleusine indica	
Itchgrass	Rottboellia exaltata	
Johnsongrass (from seed)	Sorghum halepense	
Junglerice	Echinochloa colona	
Lovegrass (from seed)	Eragrostis spp.	
Panicum, Browntop	Panicum fasciculatum	
Panicum, Fall	Panicum dichotomiflorum	
Panicum, Texas	Panicum texanum	•
Sandbur, Field	Cenchrus incertus	
Signalgrass	Brachiaria platyphylla	
Sprangletop, Mexican	Leptochloa uninervia	
Sprangletop, Red	Leptochļoa filiformis	
Witchgrass	Panicum capillare	
Woolly Cupgrass	Eriochloa villosa	

# **Broadleaf Weeds Controlled**

Common Name	Scientific Name
Burweed, Lawn	Soliva pterosperma
Carpetweed	Mollugo verticillata
Chickweed, Common	Stellaria media
Chickweed, Mouseear	Cerastium vulgatum
Clover, Hop	Trifolium procumbens
Cudweed	Gnaphalium spp.
Evening primrose	Oenothera biennis
Fiddleneck	Amsinckia intermedia
Filaree	Erodium spp.
Henbit	Lamium amplexicaule
Knotweed, prostrate	Polygonum aviculare
Kochia	Kochia scoparia
Lambsquarters	Chenopodium album
Pigweed	Amaranthus spp.
Puncturevine	Tribulus terrestris
Purslane	Portulaca oleracea
Pusley, Florida	Richardia scabra
Rocket, London	Sisymbrium irio
Shepherdspurse	Capsella bursa-pastoris
Smartweed, Pennsylvania	Polygonum pensylvanicum
Speedwell, Corn	Veronica arvensis
Spurge, Annual	Euphorbia spp.
Spurge, Prostrate	Chamaesyce humistrata
Woodsorrel, Yellow	Oxalis stricta
Velvetleaf (Buttonweed)	Abutilon theophrasti
	ille

# Turfgrass

# Residential, Golf Course, Commercial and other Non-residential Sites

# Application Rates For Preemergence Weed Control<sup>1</sup>

Turfgrass Species	Weed	Pendulum <sup>®</sup> 0.5% Plus Fertilizer Rate	Comment
Cool-season Grass			
Bluegrass, Kentucky Fescue, fine Fescue, tall Ryegrass, perennial	crabgrass foxtail Poa annua barnyardgrass fall panicum oxalis prostrate spurge purslane knotweed evening primrose hop clover	All Turf Uses 300-400 lbs/acre as the initial application before weed germination in the spring	Apply a repeat application of 200-300 lbs/acre after 5-8 weeks for extended control or where heavy weed infestations are expected.
	goosegrass	Residential and Sod Farm Turf Uses Only <sup>2</sup> 300-400 lbs/acre in the spring before weed germination	Apply a repeat application of 200 lbs/acre after 5-8 weeks if the lower rate was used initially or for extended goosegrass control.
		Golf Course, Commercial and other Non-residential Turf Sites 300-600 lbs/acre in the spring before weed germination	
	cudweed Poa annua chickweed lawn burweed henbit corn speedwell	All Turf Uses 300-400 lbs/acre	Apply in late summer or early fall before weed germination. Apply a repeat application of 300-400 lbs/acre after 5-8 weeks for extended <i>Poa annua</i> control.

continued)

# Application Rates For Preemergence Weed Control<sup>1</sup> (continued)

Turfgrass Species	Weed	Pendulum <sup>®</sup> 0.5% Plus Fertilizer Rate	Comment
Cool-season Grass (co	ontinued)		
Bentgrass or established <i>Poa annua</i> <sup>3</sup> (1/2 inch or taller)	crabgrass foxtail Poa annua barnyardgrass fall panicum oxalis prostrate spurge purslane knotweed evening primrose hop clover	All Turf Uses (Non-greens and Tees) 300 lbs/acre in the spring before weed germination	Apply a repeat application of 200-300 lbs/acre after 5-8 weeks where heavy weed infestations are expected.
	goosegrass	All Turf Uses (Non-greens and Tees) 300 lbs/acre in the spring before weed germination	Apply a repeat application of 300 lbs/acre after 5-8 weeks for extended control.
	cudweed Poa annua chickweed lawn burweed henbit corn speedwell	All Turf Uses (Non-greens and Tees) 300-400 lbs/acre	Apply in late summer or early fall before weed germination.

# **Application Rates For Preemergence Weed Control**<sup>1</sup>(continued)

Turfgrass Species	Weed	Pendulum <sup>®</sup> 0.5% Plus Fertilizer Rate	Comment
Warm-season Grass			
Bahiagrass Bermudagrass Buffalograss Centipedegrass Fescue, tall St. Augustinegrass Zoysiagrass	crabgrass foxtail Poa annua barnyardgrass fall panicum oxalis prostrate spurge purslane knotweed evening primrose hop clover	Residential and Sod Farm Turf Uses Only <sup>2</sup> 300-400 lbs/acre in the spring before weed germination  Golf Course, Commerical and other Non-residential Turf Sites 300-600 lbs/acre in the spring before weed germination	Apply a repeat application of 200-300 lbs/acre after 5-8 weeks if necessary.
	goosegrass	All Turf Uses (Non-greens and Tees) 300 lbs/acre before weed germination in the spring. Apply a repeat application of 300-400 lbs/acre after 5-8 weeks.	An additional application of 300 lbs/acre may be applied for extended goosegrass control 8 weeks after the second application.
	cudweed Poa annua chickweed lawn burweed henbit corn speedwell	All Turf Uses 300-400 lbs/acre	Apply in late summer or early fall before weed germination. Apply a repeat application of 300-400 lbs/acre after 5-8 weeks for extended <i>Poa annua</i> control.

<sup>&</sup>lt;sup>1</sup>DO NOT exceed a maximum rate of 400 pounds **per acre per application** for use on residential turfgrass and sod farm

<sup>3</sup> Not for use on bentgrass or *Poa annua* greens or tees.



DO NOT exceed a maximum rate of 600 pounds per acre per application for use on golf course turfgrass, commercial or other non-residential turfgrass sites.

Residential is defined as turf in any residential situation as well as home lawns, schools, parks and playgrounds.

# **Turfgrass Precautions**

Use on well-established turfgrass with a dense and uniform stand. On newly planted areas, application should not be made until turfgrass has filled in and been mowed at least 4 times. On turf thinned or damaged because of winter injury, excessive moisture, etc., allow for turf recovery before making an application.

Applications made to overseeded warm-season turfgrass may cause thinning or injury of the overseeded species.

**DO NOT** use on bentgrass or *Poa annua* greens and tees or injury may occur.

Delay reseeding or winter overseeding of treated turfgrass for at least three (3) months following the last **Pendulum**® **0.5% Plus Fertilizer** application. Delay sprigging turfgrass for five (5) months after application.

# Industrial (Unimproved) Turf

Industrial or unimproved turf areas often have a different spectrum of weeds to control than those found in fine turf. **Pendulum 0.5% Plus Fertilizer** will control annual grasses and broadleaf weeds listed for cool-season and warm-season grass, and the following weeds that might germinate in established grass in rights-of-way, roadsides, construction sites, parks, substations, lots, or similar areas: crowfootgrass, itchgrass, Johnsongrass (from seed), junglerice, lovegrass (from seed), browntop panicum, Texas panicum, field sandbur, signalgrass, Mexican sprangletop, red sprangletop, witchgrass, woolly cupgrass, carpetweed, fiddleneck, filaree, kochia, lambsquarters, pigweed, puncturevine, Florida pusley, London rocket, shepherdspurse, Pennsylvania smartweed, annual spurge, and velvetleaf

Apply before weeds germinate. Use a postemergence herbicide such as 2,4-D; MCPA; MSMA; or similar product to control established weeds.

# Landscape and Grounds Maintenance

Pendulum 0.5% Plus Fertilizer can be incorporated into landscape and grounds maintenance programs to provide extended preemergence control of most annual grasses and certain broadleaf weeds. Areas to be treated include but are not limited to established trees or ornamentals in the landscape or in mulch beds; or other commercially maintained landscape areas such as borders, around statuary or monuments in parks or in parking areas. If emerged weeds are present at time of application, either shallow cultivate to destroy existing weeds or, where practical, remove by hand or apply a postemergence product labeled for such use before an application of Pendulum 0.5% Plus Fertilizer. Pendulum 0.5% Plus Fertilizer may be used before or after application of herbicides registered for postemergence use (i.e. Segment® herbicide, Roundup PRO® herbicide or Finale® herbicide) for the control of established weeds.

DO NOT apply sprays containing Roundup<sup>®</sup> herbicide or Finale over the top of desirable plants, and follow label restrictions. A Pendulum 0.5% Plus Fertilizer treatment may be followed by any registered herbicide to control weeds not listed on the Pendulum 0.5% Plus Fertilizer label.

#### **Ornamental Bulbs**

**Pendulum 0.5% Plus Fertilizer** may be applied for control of susceptible annual weeds in ornamental bulbs listed on the label (crocus, daffodil (narcissus), gladiolus, tulip, etc.). Apply **Pendulum 0.5% Plus Fertilizer** before, during or after bulb emergence. If weeds have already germinated, use a labeled postemergence herbicide to control emerged weeds.

#### Wildflowers

Pendulum 0.5% Plus Fertilizer may be applied for control of susceptible annual weeds in plantings of wildflowers listed on the label (black-eyed Susan, California poppy, coreopsis, oxeye daisy, etc.). Pendulum 0.5% Plus Fertilizer may be applied to established perennial wildflowers before emergence of weeds or wildflowers. For wildflowers being established from seed, apply Pendulum 0.5% Plus Fertilizer after wildflowers have emerged but before weed germination. If weeds have already germinated, use a labeled postemergence product to control emerged weeds.

Because of the diversity of species and varieties which exist in areas where wildflowers are grown, the response to **Pendulum® 0.5% Plus Fertilizer** may vary greatly. Carefully test desirable species to determine if area-wide applications can be made.

## **Ornamental Precautions**

Apply **Pendulum 0.5% Plus Fertilizer** to established plantings. Care must be taken that soil or planting mixes have settled firmly following transplanting and that there are no cracks that would allow direct contact of **Pendulum 0.5% Plus Fertilizer** with roots. Applications where soil and media surfaces are uniformly covered will result in best weed control and ornamental tolerance. Plant only those desirable plant species listed on this label into soil treated the previous season with **Pendulum 0.5% Plus Fertilizer** or injury may occur.

# **Tolerant Ornamental Species**

Pendulum 0.5% Plus Fertilizer is safe around and over the top of the established plants listed below.

Trees	<u></u>	
Common Name	Scientific Name	
Alder, European Black	Alnus glutinosa	
Apple	Malus spp.	
Arborvitae, American	Thuja occidentalis	
Arbutus	Arbutus spp.	
Ash, Red	Fraxinus pennsylvanica	
Ash, White	Fraxinus americana	
Aspen, Bigtooth	Populus grandidentata	
Aspen, Quaking	Populus tremuloides	
Basswood	Tilia spp.	
Birch, European Weeping	Betula pendula	
Birch, River	Betula nigra	
Buckeye, Red	Aesculus pavia	
Cedar, White	Thuja occidentalis	
Chamaecyparis, Boulevard	Chamaecyparis pisifera	
Cherry, Black	Prunus serotina	
Cherry, Choke	Prunus virginiana	
Cherry, Kwanzan	Prunus serrulata	
Cherry, Nanking	Prunus tomentosa	
Cottonwood	Populus deltoides	
Crabapple	Malus spp.	
Crape Myrtle Lagerstroemia indica		
Cryptomeria, Japanese Cedar	Cryptomeria japonica	
Cypress, Bald	Taxodium distichum	
Cypress, Leyland	Cupressocyparis leylandii	
Dogwood, Flowering	Cornus florida	
Dogwood, Korean	Cornus kousa	
Dogwood, Shrub	Cornus spp.	
Dogwood, Silky	Cornus amomum	
Elm	Ulmus japonica	
Fir, Balsam	Abies balsamae	
Fir, Douglas Pseudotsuga menziesii		
Fraser Abies fraseri		
Fir, White Abies concolor '		
Franklinia Franklinia spp.		
Sinkgo Ginkgo biloba		
O and District		
m. Sour Nvssa svlvatica		
w. Black		
Hawthorn	Crataegus spp.	

(continued)

Trees (continued)			
Common Name	Scientific Name		
Hemlock, Canada	Tsuga canadensis		
Hemlock, Eastern	Tsuga canadensis		
olly, American Ilex opaca			
Honeylocust	Gleditsia triacanthos		
Lilac, Common	Syringa vulgaris		
Lilac, Japanese Tree	Syringa reticulata		
Linden	Tilia spp.		
Magnolia, Saucer	Magnolia soulangiana		
Magnolia, Southern	Magnolia grandiflora		
Magnolia, Star	Magnolia stellata		
Maidenhair Tree	Ginkgo biloba		
Maple, Paper-bark	Acer griseum		
Maple, Norway	Acer platanoides		
Maple, Japanese	Acer palmatum		
Maple, Red	Acer rubrum		
Maple, Sugar	Acer saccharum		
Nannyberry, Rusty	Viburnum rufidulum		
Oak, Chinquapin	Quercus muehlenbergii		
Oak, Live	Quercus virginiana		
Oak, Pin	Quercus palustris		
Oak, Red	Quercus rubra		
Oak, Swamp Chestnut	Quercus michauxii		
Dak, Water Quercus nigra			
Oak, White Quercus alba			
Oak, Willow Quercus phellos			
ve Olea europaea			
Palm, Date	Phoenix spp.		
Palm, Fan	Washingtonia spp.		
Palm, Pindo	Butia spp.		
Palm, Washington Washingtonia spp.			
Peach Prunus persica			
Pear, Bradford Pyrus calleryana 'Bradford'			
Pecan Carya illinoensis			
Pine, Austrian Pinus nigra			
Pine, Italian Stone	Pinus pinea		
Pine, Loblolly	Pinus taeda		
Pine, Monterey	Pinus radiata		
Pine, Red	Pinus resinosa		
Pine, Scotch Pinus sylvestris			
Pine, Virginia	Pinus virginiana		
Pine, White	Pinus strobus		
Plum, Purple Leaf	Prunus cerasifera		
Poplar, Black	Populus nigra		
Redcedar, Eastern	Juniperus virginiana		
Redcedar, Western	Thuja plicata 🧯 🥶		
Red Ironbark Eucalyptus sideroxylon 'Rosea'			
Redwood, Dawn Metasequoia glyptostroboides			
Sequoia, Giant Sequoiadendron giganteunic			
Serviceberry	Amelanchier laevis		
Sourwood	Oxydendrum arboreum 🦼 😘 😋		
Spruce, Colorado Blue	Picea pungens		
Spruce, Dwarf Alberta	Picea glauca 'Albertiana'		
Spruce, Norway	Picea abies		

Tolerant Orna	mental Species (continued)
Trees (continued)	
Common Name	Scientific Name
Spruce, White	Picea glauca
Sweetgum	Liquidambar styraciflua
Sycamore	Platanus occidentalis
Trachycarpus	Trachycarpus spp.
Tulip tree	Liriodendron tulipifera
Walnut, Black	Juglans nigra
Willow, Weeping	Salix babylonica
Yellowwood	Cladrastis lutea
Shrubs	
Common Name	Scientific Name
Abelia, Glossy	Abelia grandiflora
Aucuba, Gold	Aucuba japonica
Azalea	Rhododendron spp.
Bamboo, Heavenly	Nandina domestica
Barberry	Berberis gladwynensis
Barberry, Japanese	Berberis thunbergii
Blue Indigo Bush	Dalea gregii
Bottlebrush, Lemon	Callistemon citrinus
Boxwood, Common	Buxus sempervirens
Boxwood, Japanese	Buxus microphylla
Brittlebush	Encelia farinosa
Buttonbush	Cephalanthus occidentalis
Camellia	Camellia japonica
Cape Jasmine	Gardenia jasminoides
Cassia, Feathery	Cassia artemisioides
Cordyline	Cordyline spp.
Correa	Correa spp.
Cotoneaster	Cotoneaster apiculatus
Cotoneaster, Bearberry	Cotoneaster dammeri
Cotoneaster, Rock	Cotoneaster horizontalis
Cypress, Italian	Cupressus sempervirens
Cypress, Leyland	Cupressocyparis leylandii
Deutzia, Slender	Deutzia gracilis
Dogwood, Red Twig	Cornus sericea
Elaeagnus	Elaeagnus ebbingei
Escallonia	Escallonia fradesii
Euonymus	Euonymus fortunei
Euonymus, Golden	Euonymus japonica
Euonymus, Winged	Euonymus alata
Firethorn	Pyracantha coccinea
Franklia Dania	Famouthia intermedia

*llex attenuata* 'Fosteri' *llex crenata* 

Forsythia intermedia

Osmanthus fragrans

Zauschineria californica

Gardenia jasminoides

Raphiolepis indica

Hibiscus syriacus

Ilex crenata Ilex attenuata Ilex vomitoria

llex cornuta

(continued)

Forsythia, Border

Fuchsia, California

Hawthorne, Indian

Fragrant Olive

Holly, Chinese

Holly, Fosters

Holly, Japanese

Holly, Savannah

Holly, Yaupon

Gardenia

Hibiscus

Shrubs (continued)	
Common Name	Scientific Name
Honeysuckle, Bush	Diervilla lonicera
Hopseed Bush	Dodonaea viscosa
Hopbush	Dodonaea viscosa
Hydrangea	Hydrangea macrophylla
Juniper	Juniperus spp.
Juniper, Chinese	Juniperus chinensis v. pfitzer
Juniper, Shore	Juniperus conferta
Juniper, Trailing	Juniperus horizontalis
Laurel, Cherry	Prunus laurocerasus
Laurel, Mountain	Kalmia latifolia
Laurel, Otto Luyken	Prunus laurocerasus
Laurel, Schipka	Prunus schipkanensis
Laurustinus	Viburnum tinus
Lavender, English	Lavandula angustifolia
Leucothoe	Leucothoe fontanesiana
Leucothoe, Coast	Leucothoe axillaris
Lilac, Cut-leaf	Syringa laciniata
Lily-of-the-Nile	Agapanthus africanus
Mahonia	Mahonia aquifolium
Mock Orange	Pittosporum tobira
Myrtle, Compact	Myrtus communis
Myrtle, Wax	Myrica cerifera
Nandina	Nandina domestica
Oleander Oragen Crone	Nerium oleander
Oregon Grape Osmanthus	Mahonia aquifolium
Palm, European Fan	Osmanthus fragrans
Palm, Mediterranean Fan	Chamaerops humilis
Phlox, Prickly	Chamaerops spp.
Photinia, Fraser	Leptodactylon californicum Photinia x fraseri
Pieris, Japanese	Pieris japonica
Pine, Mugo	Pinus mugo
Plum, Natal	Carissa grandiflora
Privet, California	Ligustrum ovalifolium
Privet, Glossy	Ligustrum lucidum
Privet, Variegated	Ligustrum sinensis
Privet, Waxleaf	Ligustrum japonicum
Pyracantha	Pyracantha coccinea
Quince, Flowering	Chaenomeles japonica
Ranger, Texas	Leucophyllum frutescens
Redroot	Ceanothus spp.
Rhododendron	Rhododendron spp.
Robira	Pittosporum tobira
Rose	Rosa spp.
Spice Plant	Illicium parviflorum
Spirea	Spiraea vanhouttei
Spirea, Anthony Waterer	Spiraea x bumalda
Spirea, Japanese	Spiraga japonica
Sweet Bay	Laurus nobilis
Trumpet Bush	Tecoma stans
Verbena, Lemon	Aloysia triphylla
Viburnum	Viburnum suspensum
Vitex	Vitex spp.
	, ,

(continuea

Tolerant Ornamenta	I Species (continued)
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Shrubs (continued)	
Common Name	Scientific Name
Weigela	Weigela florida
Wild Lilac	Ceanothus spp.
Wisteria	Wisteria spp.
Xylosma	Xylosma congestum
Yellowbells	Tecoma stans
Yew	Taxus media
Yew, Japanese	Taxus cuspidata
Yew, Southern	Podocarpus macrophyllus
Yucca, Adam's Needle	Yucca filamentosa
Yucca, Weeping	Yucca pendula

Ground Covers		
Common Name	Scientific Name	
Ajuga	Ajuga reptans	
Baby Sun Rose	Aptenia cordifolia	
Beach Strawberry	Fragaria chiloensis	
Capeweed	Arctotheca calendula	
Cinquefoil, Spring	Potentilla verna	
Coyotebrush, Dwarf	Baccharis pitularis	
Daisy, Trailing African	Osteospermum fruticosum	
Dymondia	Dymondia margaretae	
Gazania	Gazania splendens	
lceplant, Large Leaf	Carpobrotus edulis	
lvy, English	Hedera helix	
Ivy, Geranium	Pelargonium peltatum	
Jasmine, Asiatic	Trachelospermum asiaticum	
Jasmine, Primrose	Jasminum mesnyi	
Jessamine, Carolina	Gelsemium sempervirens	
Manzanita, Bearberry	Arctostaphylos uva-ursi	
Miscanthus	<i>Miscanthus</i> <b>s</b> pp.	
Mondograss	Ophiopogon japonica	
Morningglory	Convolvulus spp.	
Myoporum	Myoporum parviflolium	
Pachysandra	Pachysandra terminalis	
Periwinkle, Common	Vinca minor	
Potentilla	Potentilla fruticosa	
Red Apple	Aptenia cordifolia	
Rosemary	Rosemarinus officinalis	
Rose-of-Sharon	Hypericum calycinum	
Sand Strawberry	Fragaria chiloensis	
Sedum	Sedum spurium	
St. Johnswort, Creeping	Hypericum calycinum	
Stonecrop	Sedum spurium	
Verbena, Peruvian	Verbena peruviana ( )	
Vervain	Verbena peruviana 💢 🕹 🔾	
Vetch, Crown	Vicia sativa	
Vinca or Greater Periwinkle	Vinca maior c	
Wintercreeper	Euonymous fortunei	

#### **Perennials**

**Common Name** 

Acacia Asparagus Aster, New York Aster, Stokes Astilibe (False Spirea) Babys Breath Beard-tongue

Bellflower Bird of Paradise Black-eyed Susan Blanket Flower Bleeding Heart **Butterfly Weed** California Poppy

Calla Lily

Canna, Common Garden

Carex

Cast Iron plant Chincherinchee Clover, Crimson Columbine Coreopsis Crinum Lily Crocus Daffodil Daylily

False dragonhead Fairy Duster Fern. Asparagus Fern, Boston Fern, Leatherleaf\*

Fern, Tree Fortnight Lily Foxglove, Common

Freesia Fuchsia, Arizona Gayfeather Gaillardia Geum Gladiolus

Heather, Dwarf Hosta

Hyssop, Sunset Indian Blanket Lantana, Weeping Leopards Bane

Lilv

Liriope, Big Blue Liriope, Creeping Liriope, Variegated Loosestrife, Garden

Montbretia Moonbeam

# Scientific Name Acacia redolens

Asparagus spp. Aster novi-belgii Stokesia laevis Astilibe spp. Gypsophila elegans Penstemon spp. Campanula spp. Caesalpinia pulcherrima Rudbeckia hirta Gaillardia x grandiflora Dicentra spectabilis Asclepias tuberosa Eschscholzia california Zantedeschia aethiopica Canna generalis 'Lucifer'

Carex spp. Aspidistra elatior

Ornithogalum thyrsoides Trifolium incarnatum Aquilegia 'McKana Giant' Coreopsis lanceolata Crinum spp.

Crocus spp. Narcissus spp. Hemerocallis spp. Physostegia virginiana Calliandra eriophylla Asparagus officinalis Nephrolepis exaltata Rumohra adiantiformis Asparagus virgatus Moraea spp. Digitalis purpurea

Freesia x hybrida Zauschneria californica Liatris spp.

Gaillardia pulchella Geum spp. Gladiolus spp. Calluna vulgaris Hosta spp.

Agastache rupestris Gaillardia pulchella Lantana montevidensis Doronicum cordatum

Lillium spp. Liriope muscari Liriope spicata Liriope muscari Lysimachia punctata Crocosmia crocosmiiflora Coreopsis verticillata

(continued)

Perennials (continued)	
Common Name	Scientific Name
Nightshade	Solanum spp.
Orchid, Peacock	Acidanthera bicolor
Oxeye Daisy	Chrysanthemum leucanthemum
Peony, Chinese	Paeonia lactiflora
Purple Coneflower	Echinacea purpurea
Purple Loosestrife	Lythrum virgatum
Rosemary	Rosmarinus officinalis
Ruscus, Israeli	Ruscus hypophyllum
Sage, Russian	Perovskia atriplicifolia
Sedge	Carex spp.
Shasta Daisy	Chrysanthemum x superbum
Sweet Flag	Acorus calamus
Texas Bluebonnet	Lupinus texenis
Tickseed	Coreopsis lanceolata
Tulip	<i>Tulipa</i> spp.
Twinspur	Diasciascia barbaerae
Wonder Flower	Ornithogalum thyrsoides
Yarrow	Achillea millefolium
Zephyr Lily	Zephyranthes spp.

<sup>\*</sup>Applications of **Pendulum® 0.5% Plus Fertilizer** to immature ferns (during periods of new growth of fronds) may result in some injury.

Ornamental Grass	
Common Name	Scientific Name
Beach Grass	Ammophila breviligulata
Fescue, Blue	Festuca ovina
Fescue, Sheep	Festuca ovina
Fountain Grass	Pennisetum setaceum
Pampas Grass	Cortaderia selloana
Reed Canary Grass	Phalaris arundinacea
Reed, Giant	<i>Arundo</i> spp.
Ribbon Grass	Phalaris arundinacea
Tufted Hair Grass	Deschampsia caespitosa



# Bedding Plants\*

Common Name	Scientific Name
Ageratum	Ageratum houstonianum
Alyssum	Alyssum saxatile
Anemone, Poppy-flowered	Anemone coronaria
Artemesia	Artemesia spp.
Balloonflower	Platycodon grandiflorum
Begonia	Begonia spp.
Cabbage, Ornamental	Brassica oleracea
Caladium	Caladium spp.
China Aster	Callistephus chinensis
Crocosmia, Montebretia	Crocosmia x crocosmiiflora
Dahlia	Dahlia spp.
Dianthus	Dianthus barbatus
Dusty Miller	Senecio cineraria
Gazania, Trailing	Gazania rigens leucolaena
Gazania, Treasure Flower	Gazania rigens
Geranium	Geranium spp.
Gloxinia	Gloxinia simningia
Impatiens	Impatiens spp.
Kale, Ornamental	Brassica napus
Marigold, African	Tagetes erecta
Moss Rose	Portulaca grandiflora
Mum, Garden	Chrysanthemum spp.
Pansy, Garden	Viola x wittrockiana
Periwinkle, Rose	Catharanthus roseus
	or <i>Vinca rosea</i>
Petunia	Petunia spp.
Plumosa Cockscomb	Celosia cristata
Portulaca	Portulaca grandiflora
Salvia	Salvia splendens
Snapdragon	Antirrhinum majus
Statice	<i>Limonium</i> spp.
Sweet William	Dianthus barbatus
Vinca or Periwinkle	Catharanthus roseus
Zinnia	Zinnia spp.

<sup>\*</sup>After planting bedding plants and before **Pendulum® 0.5% Plus Fertilizer** is applied, the area to be treated should be watered sufficiently to pack soil around roots.

DO NOT treat plants grown for food or feed.

DO NOT use treated plants for food or feed.



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