241-423





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

> **OFFICE OF PREVENTION, PESTICIDES AND TOXIC SUBSTANCES**

## JUL 2 3 2009

Dr. Jeffrey H. Birk BASF 26 Davis Drive Research Triangle Park, NC 27709

Dr. Birk:

RE: A.I. PENDIMETHALIN; PENDULUM® 0.66% PLUS FERTILIZER, EPA REG. NO. 241-421; PENDULUM® 1.15% PLUS FERTILIZER, EPA REG. NO. 241-422; PENDULUM® 0.5% PLUS FERTILIZER EPA REG. NO. 241-423; AND PENDULUM® 0.86% PLUS FERTILIZER, EPA REG. NO. 241-424; ADMINISTRATIVE LETTERS ALL DATED APRIL 30, 2009.

Your requested label amendments for Pendulum® 0.66% Plus Fertilizer, EPA Reg. No. 241-421, Pendulum® 1.15% Plus Fertilizer, EPA Reg. No. 241-422, Pendulum® 0.5% Plus Fertilizer, EPA Reg. No. 241-423, Pendulum® 0.86% Plus Fertilizer, EPA Reg. No. 241-424 and

are acceptable with the following comments:

- 1. The signal word on the labels must be prominent and not be crowded according to the requirements in 40CFR156.10(a)(2)(ii)(B) and (C), and 40CFR156.60(b).
- 2. Add the batch/lot number to each label on nonrefillable containers as required under 40CFR156.140(a)(4).

Additional comment for product, Pendulum® 0.86% Plus Fertilizer, EPA Reg. No. 241-424:

1. On page 6 of label, correct the typo, 086% to 0.86% in the first sentence of the 3<sup>rd</sup> paragraph under "GENERAL INFORMATION"

This amended label supersedes all previously accepted labels. A stamped copy of the revised labels are enclosed for your records. Please submit one copy of your final printed labeling before you release the product for shipment.

For additional assistance with this matter, please contact Phil Errico at 703-305-6663/ Errico.Philip@epa.gov.

Regards, James A. Tompkins, PM-25 Herbicide Branch/RD 7505P

Page 2 of 2

# Pendulum<sup>®</sup> 0.5% Plus Fertilizer **Preemergent Weed Control**

#### 0.5% pendimethalin + X-X-X Fertilizer

## FOR USE ON TURFGRASSES AND ESTABLISHED ORNAMENTALS IN THE LANDSCAPE

Active Ingredient: pendimethalin: N-(1-ethylpropyl)-3,4-dime	thyl-2,6-dinitrobenzenamine0.5%
Other Ingredients:	
Total:	
EPA Reg. No. 241-423	EPA Est. No.
GUARANI	TEED ANALYSIS
Total Nitrogen (N) X.X % Ammoniacal Nitrogen	X.X%

X.X % Ammoniacal Nitrogen	
X.X % Urea Nitrogen	
Available Phosphoric Acid (P2O5)	X.X%
Potassium Sulfate (K <sub>2</sub> SO <sub>4</sub> )	X.X%
Derived from: Urea, Diammonium Phosphate, and Sulfate of Potash	

## **KEEP OUT OF REACH OF CHILDREN** CAUTION PRECAUCION

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

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

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

See inside leaflet for additional Precautionary Statements and Directions For Use-

Net Contents:

26 Davis Drive

**BASF** Corporation ACCEPTED Research Triangle Park, NC 27709 with COMMENTS In EPA Letter Dated

The Chemical Company

### JUL 2 3 2009 Under the Federal Insecticide. Fundicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. -47

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	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 15-20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
If in eyes	<ul> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lens, if present, after the first 5 minutes, then continue rinsing eye.</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>

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact BASF Corporation for emergency medical treatment information: 1-800-832-HELP (4357).

## **Precautionary Statements**

## 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

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 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<sup>®</sup> 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

## 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 Disposal

(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<sup>®</sup> 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.

## **GENERAL INFORMATION**

**Pendulum 0.5% Plus Fertilizer** is a combination preemergent 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 greens and tees), bermudagrass, St. Augustinegrass, bahiagrass, centipedegrass, zoysiagrass and blends 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 hot 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 one-hal: inch of rainfall or its equivalent in sprinkler irrigation. This will remove the product from the turfgrass foliage and establish a preemergent 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<sup>™</sup> herbicide**, Acclaim Extra<sup>®</sup> herbicide, or MSMA-containing products, to control

emerged weeds. Broadleaf weeds can be controlled using  $Trimec^{TM}$  herbicide, Three-Way<sup>TM</sup> herbicide, 2-4,D, and other similar products.

Applied according to label directions, and under normal growing conditions, **Pendulum**<sup>®</sup> 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.

#### Maximum Application Rate by Use Sites

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

<sup>\*</sup>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 M, 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 Courses," published by the Florida Department of Environmental Protection, dated January 2007. Copies 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.

## WEED SPECIES CONTROLLED

**Pendulum<sup>®</sup> 0.5% Plus Fertilizer** is recommended for preemergence control of the weed species listed. Applications can be made around and over the top of the ornamentals and to the sites listed on this label.

**GRASSES CONTROLLED Common Name** Barnyardgrass Bluegrass, Annual Crabgrass Crowfootgrass Foxtail, Giant Foxtail, Green Foxtail, Yellow Goosegrass Itchgrass Johnsongrass (from seed) Junglerice Lovegrass (from seed) Panicum, Browntop Panicum, Fall Panicum, Texas Sandbur, Field Signalgrass Sprangletop, Mexican Sprangletop, Red Witchgrass Woolly Cupgrass

Scientific Name

Echinochloa crus-galli Poa annua Digitaria spp. Dactyloctenium aegyptium Setaria faberi Setaria viridis Setaria glauca Eleusine indica Rottboellia exaltata Sorghum halepense Échinochloa colona Eragrostis spp. Panicum fasciculatum Panicum dichotomiflorum Panicum texanum Cenchrus incertus Brachiaria platyphylla Leptochloa uninervia Leptochloa filiformis Panicum capillare Eriochloa villosa

## **BROADLEAF WEEDS CONTROLLED**

**Common Name** Burweed, Lawn Carpetweed Chickweed, Common Chickweed, Mouseear Clover, Hop Cudweed Evening primrose Fiddleneck Filaree Henbit Knotweed, prostrate Kochia Lambsquarters Pigweed Puncturevine Purslane Pusley, Florida Rocket, London Shepherdspurse Smartweed, Pennsylvania Speedwell, Corn Spurge, Annual Spurge, Prostrate Woodsorrel, Yellow Velvetleaf (Buttonweed)

## Scientific Name

Soliva pterosperma Mollugo verticillata Stellaria media Cerastium vulgatum Trifolium procumbens Gnaphalium spp. Oenothera biennis Amsinckia intermedia Erodium spp. Lamium amplexicaule Polygonum aviculare Kochia scoparia Chenopodium album Amaranthus spp. Tribulus terrestris Portulaca oleracea Richardia scabra Sisvmbrium irio Capsella bursa-pastoris Polygonum pensylvanicum Veronica arvensis Euphorbia spp. Chamaesyce humistrata Oxalis stricta Abutilon theophrasti

# TURFGRASS

# RESIDENTIAL, GOLF COURSE, COMMERCIAL AND OTHER NON-RESIDENTIAL TURFGRASS USES

# 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 <i>Poa annua</i> barnyardgrass fall panicum oxalis prostrate spurge purslane knotweed evening primrose hop clover	All Turf Uses 300-400 lbs/acre as the initial application prior to 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 prior to 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 conucl.
		Golf Course, Commercial and Other Non- Residential Turf Uses Only 300-600 lbs/acre in the spring prior to 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 prior to weed germination. Apply a repeat application of 300-400 lbs/acre after 5-8 weeks for extended <i>Poa annua</i> control.
Bentgrass or established Poa annua <sup>3</sup> (1/2 inch or taller)	crabgrass foxtail <i>Poa annua</i> 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 prior to weed germination	Apply a repeat application of 200-300 lbs/acre after 5-8 weeks where heavy weed infestations are expected.
Ķ	goosegrass	All Turf Uses (Non-Greens and Tees) 300 lbs/acre in the spring prior to weed germination	Apply a repeat application of 300 lbs/acre after 5-8 weeks for extended control.
	cudweed <i>Poa annua</i> chickweed lawn burweed henbit corn speedwell	All Turf Uses (Non-Greens and Tees) 300-400 lbs/acre	Apply in late summer or early fall prior to weed germination.

	•	•
	Residential and Sod	· · · · ·
-		Apply a repeat
		application of
1	germination	200-300 lbs/acre
• •		after 5-8 weeks if
· ·		necessary.
	•	
· · · ·		
	•	
hop clover		
· · · · ·		· · · · · · · · · · · · · · · · · · ·
· · ·		
goosegrass	-	An additional
		application of
		300 lbs/acre may be
		applied for extended
•	5-8 weeks.	goosegrass control
· .		8 weeks after the
	· · · · ·	second application.
· · · · · · · · · · · · · · · · · · ·		·····
_	•	· · · · ·
	300-400 lbs/acre	Apply in late
. 1		summer or early fall
		pricr tc weed
		germination. Apply
		a repeat application
corn speedwell		of 300-400 lbs/acre
·		after 5-8 weeks for
f		extended Poa annua
	crabgrass foxtail <i>Poa annua</i> barnyardgrass fall panicum oxalis prostrate spurge purslane knotweed evening primrose hop clover goosegrass cudweed <i>Poa annua</i> chickweed lawn burweed henbit corn speedwell	CrabgrassFarm Turf Uses Only2300-400 lbs/acre in the spring prior to weed germination300-400 lbs/acre in the spring prior to weed germinationPoa annua barnyardgrass fall panicum oxalisGolf Course, Commerical and Other Non- Residential Turf Uses 00-600 lbs/acre in the spring prior to weed germinationpurslane hop cloverResidential Turf Uses (Non-Greens and Tees) 300 lbs/acre prior to weed germination in the spring. Apply a repeat application of 300-400 lbs/acre after 5-8 weeks.cudweed Poa annua chickweed lawn burweed henbitAll Turf Uses 300-400 lbs/acre

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

2000

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

<sup>2</sup> Residential is defined as turf in any residential situation as well as home lawns, schools, parks and playgrounds.

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

## TURFGRASS PRECAUTIONS

Use on well-established turfgrass with a dense and uniform stand. On newly planted areas, application should not be made until the turfgrass has filled in and has been mowed at least four times. On turf that has been thinned or damaged due to winter injury, excessive moisture, etc., allow for turf recovery prior to 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**<sup>®</sup> 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 be controlled than those found in fine turf as described elsewhere in this leaflet. **Pendulum® 0.5% Plus Fertilizer** will control annual grasses and broadleaf weeds mentioned in that section of this label as well as 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. A postemergence herbicide such as 2,4-D, MCPA, MSMA, or similar product is recommended 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 prior to 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<sup>™</sup> herbicide,

**Roundup PRO<sup>®</sup> herbicide** or **Finale<sup>®</sup> herbicide**) for the control of established weeds.

**DO NOT** apply sprays containing **Roundup**<sup>®</sup> herbicide or **Finale**<sup>®</sup> herbicide over the top of desirable plants, and follow the label restrictions. A **Pendulum**<sup>®</sup> **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** prior to, 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 prior to weed germination. If weeds have already germinated, use a labeled postemergence product to control emerged weeds.

Due to 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. Careful testing on desirable species is recommended 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 any Pendulum<sup>®</sup> product or injury may occur.

## **RECOMMENDED ORNAMENTAL SPECIES**

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

TREES

<u>Common Name</u> Alder, European Black Apple Arborvitae, American Arbutus Ash, Red Ash, White Scientific Name Alnus glutinosa Malus spp. Thuja occidentalis Arbutus spp. Fraxinus pennsylvanica Fraxinus americana Aspen, Bigtooth Aspen, Quaking Basswood Birch, European Weeping Birch, River Buckeye, Red Cedar, White Chamaecyparis, Boulevard Cherry, Black Cherry, Choke Cherry, Kwanzan Cherry, Nanking Cottonwood Crabapple Crape Myrtle Cryptomeria, Japanese Cedar Cypress, Bald Cypress, Leyland Dogwood, Flowering Dogwood, Korean Dogwood, Shrub Dogwood, Silky Elm Fir, Balsam Fir, Douglas Fir, Fraser Fir, White Franklinia Ginkgo Gum, Black Gum, Sour Haw, Black Hawthorn Hemlock, Canada Hemlock, Eastern Holly, American Honeylocust Lilac, Common Lilac, Japanese Tree Linden Magnolia, Saucer Magnolia, Southern Magnolia, Star Maidenhair Tree Maple, Paper-bark Maple, Norway Maple, Japanese Maple, Red Maple, Sugar

Populus grandidentata Populus tremuloides *Tilia* spp. Betula pendula Betula nigra Aesculus pavia Thuja occidentalis Chamaecyparis pisifera Prunus serotina Prunus virginiana Prunus serrulata Prunus tomentosa Populus deltoides Malus spp. Lagerstroemia indica Cryptomeria japonica Taxodium distichum Cupressocyparis leylandii Cornus florida Cornus kousa Cornus spp. Cornus amomum Ulmus japonica Abies balsamae Pseudotsuga menziesii Abies fraseri Abies concolor Franklinia spp. Ginkgo biloba Nyssa sylvatica Nyssa sylvatica 🦆 Viburnum prunifolium Crataegus spp. Tsuga canadensis Tsuga canadensis Ilex opaca Gleditsia triacanthos Syringa vulgaris Syringa reticulata Tilia spp. Magnolia soulangiana Magnolia grandiflora Magnolia stellata Ginkgo biloba. Acer griseum Acer platanoides Acer palmatum Acer rubrum Acer saccharum

Nannyberry, Rusty Oak, Chinquapin Oak, Live Oak, Pin Oak, Red Oak, Swamp Chestnut Oak, Water Oak, White Oak, Willow Olive Palm, Date Palm, Fan Palm, Pindo Palm, Washington Peach Pear, Bradford Pecan Pine, Austrian Pine, Italian Stone Pine, Loblolly Pine, Monterey Pine, Red Pine, Scotch Pine, Virginia Pine, White Plum, Purple Leaf Poplar, Black Redcedar, Eastern Redcedar, Western Red Ironbark Redwood, Dawn Sequoia, Giant Serviceberry Sourwood Spruce, Colorado Blue Spruce, Dwarf Alberta Spruce, Norway Spruce, White Sweetgum Sycamore Trachycarpus Tulip tree Walnut, Black Willow, Weeping Yellowwood

Viburnum rufidulum Quercus muehlenbergii **Ouercus** virginiana Quercus palustris Quercus rubra Quercus michauxii Quercus nigra Quercus alba *Quercus phellos* Olea europaea *Phoenix* spp. Washingtonia spp. Butia spp. Washingtonia spp. Prunus persica Pyrus calleryana 'Bradford' Carya illinoensis Pinus nigra Pinus pinea Pinus taeda Pinus radiata Pinus resinosa Pinus sylvestris Pinus virginiana Pinus strobus Prunus cerasifera Populus nigra Juniperus virginiana Thuja plicata Eucalyptus sideroxylon 'Rosea' Metasequoia glyptostroboides Sequoiadendron giganteum Amelanchier laevis Oxydendrum arboreum Picea pungens 5 5 Picea glauca 'albertiana' Picea abies Picea glauca Liquidambar styraciflua Platanus occidentalis Trachycarpus spp. Liriodendron tulipifera Juglans nigra Salix babylonica Cladrastis lutea

**Common Name** Abelia, Glossy Aucuba, Gold Azalea Bamboo, Heavenly Barberry Barberry, Japanese Blue Indigo Bush Bottlebrush, Lemon Boxwood, Common Boxwood, Japanese Brittlebush **Buttonbush** Camellia Cape Jasmine Cassia, Feathery Cordyline Correa Cotoneaster Cotoneaster, Bearberry Cotoneaster, Rock Cypress, Italian Cypress, Leyland Deutzia, Slender Dogwood, Red Twig Elaeagnus Escallonia Euonymus Euonymus, Golden Euonymus, Winged Firethorn Forsythia, Border Fragrant Olive Fuschia, California Gardenia Hawthorne, Indian Hibiscus Holly, Chinese Holly, Fosters Holly, Japanese Holly, Savannah Holly, Yaupon Honeysuckle, Bush Hopseed Bush Hopbush Hydrangea Juniper Juniper, Chinese

## Scientific Name

Abelia grandiflora Aucuba japonica Rhododendron sp. Nandina domestica Berberis gladwynensis Berberis thunbergii Dalea gregii Callistemon citrinus Buxus sempervirens Buxus microphylla Encelia farinosa Cephalanthus occidentalis Camellia japonica Gardenia jasminoides. Cassia artemisioides Cordyline spp. Correa spp. Cotoneaster apiculatus Cotoneaster dammeri Cotoneaster horizontalis Cupressus sempervirens Cupressocyparis leylandii Deutzia gracilis Cornus sericea Elaeagnus ebbingei Escallonia fradesii Euonymus fortunei Euonymus japonica Euonymus aletta 5 6 Pyracantha coccinea Forsythia intermedia Osmanthus fragrans Zauschineria californica Gardenia jasminoides Raphiolepis indica Hibiscus syriacus Ilex cornuta Ilex attenuata 'Fosteri' Ilex crenata Ilex attenuata Ilex vomitoria Diervilla lonicera Dodonaea viscosa Dodonaea viscosa Hydrangea macrophylla Juniperus sp. Juniperus chinensis v. pfitzer

Juniper, Shore Juniper, Trailing Laurel, Cherry Laurel, Mountain Laurel, Otto Luyken Laurel, Schipka Laurustinus Lavender, English Leucothoe Leucothoe, Coast Lilac, Cut-leaf Lily-of-the-Nile Mahonia Mock Orange Myrtle, Compact Myrtle, Wax Nandina Oleander Oregon Grape Osmanthus Palm, European Fan Palm, Mediterranean Fan Phlox, Prickly Photinia, Fraser Pieris, Japanese Pine, Mugo Plum, Natal Privet, California Privet, Glossy Privet, Variegated Privet, Waxleaf Pyracantha Quince, Flowering Ranger, Texas Redroot Rhododendron Robira Rose Spice Plant Spiraea Spiraea, Anthony Waterer Spiraea, Japanese Sweet Bay Trumpet Bush Verbena, Lemon Viburnum Vitex Weigela Wild Lilac

Juniperus conferta Juniperus horizontalis Prunus laurocerasus Kalmia latifolia Prunus laurocerasus Prunus schipkanensis Viburnum tinus Lavandula angustifolia Leucothoe fontanesiana Leucothoe axillaris Syringa laciniata Agapanthus africanus Mahonia aquifolium Pittosporum tobira Myrtus communis Myrica cerifera Nandina domestica Nerium oleander Mahonia aquifolium Osmanthus fragrans Chamaerops humilis Chamaerops spp. Leptodactylon californicum Photinia X Fraseri Pieris japonica Pinus mugo Carissa grandiflora Ligustrum ovalifolium Ligustrum lucidum Ligustrum sinensis Ligustrum japonicum Pyracantha coccinéa Chaenomeles japonica Leucophyllum frutescens Ceanothus spp. 2 Rhododendron spp. Pittosporum tobira Rosa spp. Illicium parviflorum Spiraea vanhouttei Spiraea X bumalda Spiraea japonica Laurus nobilis Tecoma stans Aloysia triphylla Viburnum suspensum Vitex spp. Weigela florida *Ceanothus* spp.

Wisteria Xylosma Yellowbells Yew Yew, Japanese Yew, Southern Yucca, Adam's Needle Yucca, Weeping

### **GROUND COVERS**

**Common Name** Ajuga Baby Sun Rose Beach Strawberry Capeweed Cinquefoil, Spring Coyotebrush, Dwarf Daisy, Trailing African Dymondia Gazania Iceplant, Large Leaf Ivy, English Ivy, Geranium Jasmine, Asiatic Jasmine, Primrose Jessamine, Carolina Manzanita, Bearberry Miscanthus Mondograss Morningglory Myoporum Pachysandra Periwinkle, Common Potentilla Red Apple Rosemary Rose-of-Sharon Sand Strawberry Sedum St. Johnswort, Creeping Stonecrop Verbena, Peruvian Vervain Vetch, Crown Vinca or Greater Periwinkle Wintercreeper

Wisteria spp. Xylosma congestum Tecoma stans Taxus media Taxus cuspidata Podocarpus macrophyllus Yucca filamentosa Yucca pendula

## Scientific Name

Ajuga reptans Aptenia cordifolia Fragaria chiloensis Arctotheca calendula Potentilla verna Baccharis pitularis Osteospermum fruticosum Dymondia margaretae Gazania splendens Carpobrotus edulis Hedera helix Pelargonium peltatum Trachelospermum asiaticum Jasminum mesnyi Gelsemium sempervirens Arctostaphylos uva-ursi Miscanthus spp. Ophiopogon japonica Convolvulus spp. Myoporum parviflolium Pachysandra terminalis Vinca minor Potentilla fruticosa Aptenia cordijolia Rosemarinus officinalis Hypericum calycinum Fragaria chiloensis Sedum spurium Hypericum calycinum Sedum spurium Verbena peruviana Verbena peruviana Vicia sativa Vinca major Euonymous fortunei

## PERENNIALS

**Common Name** Acacia Asparagus Aster, New York Aster, Stokes Astilibe (False Spirea) **Babys Breath** Beard-Tongue Bellflower Bird of Paradise Black-eved 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 Davlily False dragonhead Fairy Duster Fern, Asparagus Fern, Boston Fern, Leatherleaf\* Fern, Tree Fortnight Lily Foxglove, Common Freesia Fuschia, Arizona Gayfeather Gaillardia Geum Gladiolus Heather, Dwarf Hosta Hyssop, Sunset Indian Blanket Lantana, Weeping Leopards Bane Lily

## 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 eriophvlla 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, Big Blue Liriope, Creeping Liriope, Variegated Loosestrife, Garden Montbretia Moonbeam Nightshade Orchid, Peacock Oxeye Daisy Peony, Chinese Purple Coneflower Purple Loosestrife Rosemary Ruscus, Israeli Sage, Russian Sedge Shasta Daisy Sweet Flag Texas Bluebonnet Tickseed Tulip Twinspur Wonder Flower Yarrow Zephyr Lily

Liriope muscari Liriope spicata Liriope muscari Lysimachia punctata Crocosmia crocosmiiflora Coreopsis verticillata Solanum spp. Acidanthera bicolor Chrysanthemum leucanthemum Paeonia lactiflora Echinacea purpurea Lythrum virgatum Rosmarinus officinalis Ruscus hypophyllum Perovskia atriplicifolia Carex spp. Chrysanthemum x superbum Acorus calamus Lupinus texenis Coreopsis lanceolata Tulipa spp. Diasciascia barbaerae Ornithogalum thyrsoides Achillea millefolium Zephyranthes spp.

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

## ORNAMENTAL GRASS

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

## **BEDDING PLANTS\***

**Common Name** Ageratum Alyssum Anemone, Poppy-flowered Artemesia Balloonflower Begonia Cabbage, Ornamental Caladium China Aster Crocosmia, Montebretia Dahlia Dianthus **Dusty Miller** Gazania, Trailing Gazania, Treasure Flower Geranium Gloxinia Impatiens Kale, Ornamental Marigold, African Moss Rose Mum, Garden Pansy, Garden Periwinkle, Rose

Petunia Plumosa Cockscomb Portulaca Salvia Snapdragon Statice Sweet William Vinca or Periwinkle Zinnia

#### Scientific Name

Ageratum houstonianum Alyssum saxatile Anemone coronaria Artemesia spp. Platycodon grandiflorum Begonia spp. Brassica olereacea Caladium spp. Callistephus chinensis Crocosmia x crocosmiiflora Dahlia spp. Dianthus barbatus Senecio cineraria Gazania rigens leucolaena Gazania rigens Geranium sp. Gloxinia simningia Impatiens sp. Brassica napus Tagetes erecta Portulaca grandiflora Chrysanthemum spp. Viola x Wittrockiana Catharanthus roseus or Vinca rosea Petunia spp. Celosia cristata Portulaca grandifiora Salvia splendens Antirrhinum maius \* Limonium spp. Dianthus barbatus Catharanthus roseus Zinnia sp.

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

**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. **DO NOT** treat plants grown for food or feed. **DO NOT** use treated plants for food or feed.

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000241.00423.20090428.NVA 2009-04-123-0078 Supersedes: NVA 2006-04-123-6225

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