

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

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

JUL 23 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,
and Pendulum® 0.86% Plus Fertilizer, EPA Reg. No. 241-424
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. Fompkins, PM-25 Herbicide Branch/RD 7505P

## Pendulum<sup>®</sup> 1.15% Plus Fertilizer Preemergent Weed Control

### 1.15% pendimethalin + X-X-X Fertilizer

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

Active Ingredient: pendimethalin: N-(1-ethylpropyl)-3,4-dimethyl-2,6-dinitrol	penzenamine1.15%
Other Ingredients:	9 <u>8.85%</u>
Total:	100.00%
EPA Reg. No. 241-422	EPA Est. No.
GUARANTEED ANALYS	SIS
Total Nitrogen (N)	X.X%
Available Phosphoric Acid (P <sub>2</sub> O <sub>5</sub> )  Soluble Potash (K <sub>2</sub> 0)	
Derived from: Urea, Diammonium Phosphate, and Muriate of	

# 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 or 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:** 

BASF Corporation 26 Davis Drive Research Triangle Park, NC 27709

ACCEPTED
with COMMENTS
In EPA Letter Dated

JUL 23 2009

Under the Federal Insecticide, Fundicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No.



The Chemical Company

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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>
	HOTLINE NUMBER

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> 1.15% 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 cut 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> 1.15% Plus Fertilizer. The use of Pendulum 1.15% 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 1.15% 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 1.15% Plus Fertilizer can be used around established ornamentals in the landscape and in established wildflower plantings. Pendulum 1.15% Plus Fertilizer may be used for hardwood and conifer regeneration on conservation reserve program land or similar areas.

**Pendulum 1.15% 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 1.15% 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 1.15% Plus Fertilizer** will be improved if the application is followed by one-half inch of rainfall or its equivalent in sprinkler irrigation. This will remove the product from the turtgrass foliage and establish a preemergent herbicide barrier in the soil. If **Pendulum 1.15% 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 1.15% 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<sup>TM</sup>** 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> 1.15% 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 1.15% 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

<u>Use Site</u>	lbs Product/A	lbs Product/1000 ft <sup>2</sup>	lbs a.i./A
Residential* and Sod Farm Turf	174	3.9	2.0
Golf Course, Commercial and Other Non-residential	261	5.9	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 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 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> 1.15% 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

Echinochloa 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

Sieitaria meata

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

Sisymbrium 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> 1.15% 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 130-174 lbs/acre as the initial application prior to weed germination in the spring	Apply a repeat application of 87-130 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> 130-174 lbs/acre in the spring prior to weed germination	Apply a repeat application of 87 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 Uses Only 130-261 lbs/acre in the spring prior to weed germination	

#### All Turf Uses 130-174 lbs/acre cudweed Apply in late summer Poa annua or early fall prior to chickweed weed germination. lawn burweed Apply a repeat application of henbit 130-174 lbs/acre corn speedwell after 5-8 weeks for extended Poa annua control. All Turf Uses (Non-Greens and Tees) 130 lbs/acre in the spring crabgrass Apply a repeat foxtail prior to weed germination application of 87-130 lbs/acre Poa annua barnyardgrass after 5-8 weeks fall panicum where heavy weed oxalis infestations are prostrate spurge expected. purslane knotweed evening primrose hop clover All Turf Uses (Non-Greens and Tees) 130 lbs/acre in the spring goosegrass Apply a repeat application of prior to weed germination 130 lbs/acre after 5-8 weeks for extended control. All Turf Uses (Non-Greens and Tees) cudweed 130-174 lbs/acre Apply in late Poa annua summer or early fall

prior to weed

germination.

Bentgrass or

established

Poa annua<sup>3</sup>

(1/2 inch or taller)

chickweed

henbit

lawn burweed

corn speedwell

	<del></del>	<del></del>	
WARM SEASON		;	
GRASS			
		Residential and Sod	
		Farm Turf Uses Only <sup>2</sup>	
Bahiagrass	crabgrass	130-174 lbs/acre in the	Apply a repeat
Bermudagrass	foxtail	spring prior to weed	application of
Buffalograss	Poa annua	germination	87-130 lbs/acre
Centipedegrass	barnyardgrass	į	after 5-8 weeks if
Fescue, tall	fall panicum	!	necessary.
St. Augustinegrass	oxalis	Golf Course, Commerical	
Zoysiagrass	prostrate spurge	and Other Non-	
	purslane	Residential Turf Uses	
	knotweed	Only	•
	evening primrose	130-261 lbs/acre in the	•
	hop clover	spring prior to weed	
		germination	
		All Turf Uses	
		(Non-Greens and Tees)	
	goosegrass	130 lbs/acre prior to weed	An additional
		germination in the spring.	application of
		Apply a repeat application	130 lbs/acre may be
		of 130-174 lbs/acre after	applied for extended
		5-8 weeks.	goosegrass control
			8 weeks after the
		i •	second application.
			**
		All Turf Uses	
•	cudweed	130-174 lbs/acre	Apply in late
	Poa annua		summer or early fall
	chickweed		prior to weed
•	lawn burweed		germination. Apply
	henbit		a repeat application
	corn speedwell		of 130-174 lbs/acre
			after 5-8 weeks for
,		Î Î	extended Poa annua
		1	control.
		1	

<sup>&</sup>lt;sup>1</sup> DO NOT exceed a maximum rate of 174 pounds <u>per acre per application</u> for use on residential turfgrass and sod farm turfgrass.

**DO NOT** exceed a maximum rate of 261 pounds <u>per acre per application</u> for use on golf course turfgrass, commercial or other non-residential turfgrass.

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

<sup>&</sup>lt;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® 1.15% 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, Lambsquaricis, 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, MCFA, MSMA, or similar product is recommended to control established weeds.

### LANDSCAPE AND GROUNDS MAINTENANCE

Pendulum 1.15% 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 1.15% Plus Fertilizer. Pendulum 1.15% 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<sup>®</sup> herbicide over the top of desirable plants, and follow the label restrictions. A Pendulum<sup>®</sup> 1.15% Plus Fertilizer treatment may be followed by any registered herbicide to control weeds not listed on the Pendulum 1.15% Plus Fertilizer label.

### ORNAMENTAL BULBS

Pendulum 1.15% 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 1.15% 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 1.15% 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 1.15% Plus Fertilizer may be applied to established perennial wildflowers before emergence of weeds or wildflowers. For wildflowers being established from seed, apply Pendulum 1.15% 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 1.15% 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 1.15% 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 1.15% 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® product or injury may occur.

### RECOMMENDED ORNAMENTAL SPECIES

Pendulum 1.15% Plus Fertilizer is safe around and over the top of the established plants listed below.

### TREES

### **Common Name**

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 triacantnos

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

Quercus 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

Picea glauca 'albertiana'

Picea abies

Picea glauca

Liquidambar styraciflua

Platanus occidentalis

Trachycarpus spp.

Liriodendron tulipifera

Juglans nigra

Salix babylonica

Cladrastis lutea

### **SHRUBS**

**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 alata

Pyracantha coccinea

Forsythia intermedia

Osmanthus frugrans

Zauschineria ca!ifornica

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 Pvracantha coccinea Chaenomeles japorica Leucophyllum frutescens Ceanothus spp.' Rhododendron spo. Pittosporum töbira -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

Vervain

Verbena, Peruvian

Vinca or Greater Periwinkle

Vetch, Crown

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 cordifolic Rosemarinus officinalis Hypericum calyginum 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-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

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 eriophylla

Asparagus officinalis

Nephrolepis exaltata

Rumohra adigniformis

Kumom a aanimijormis

Asparagus virgatus

Moraea spp. 👵 🕟

Digitalis purpurea

Freesia x hybrida

Zauschneria cclifernica

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.

### ORNAMENTAL GRASS

### Common Name

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 ovinà

Festuca ovina

Pennisetum setaceum

Cortaderia selloana

Phalaris arunainacea

Arundo spp.

Phalaris arundinacea

Deschampsia caespitosa

<sup>\*</sup>Applications of Pendulum® 1.15% Plus Fertilizer to immature ferns (during periods of new growth of fronds) may result in some injury.

### **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 grandiflora

Salvia splendens

Antirrhinum majus

7:....

Limonium spp.

Dianthus barbatus

Catharanthus i oseis

Zinnia sp.

Pendulum 1.15% 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.

<sup>\*</sup>After planting bedding plants and before **Pendulum ® 1.15% Plus Fertilizer** is applied, area to be treated should be watered sufficiently to pack soil around roots.

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000241.00422.20090429.**NVA 2009-04-123-0081** Supersedes: NVA 2006-04-123-0221

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