

241-340

2/1/2002

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U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs
Registration Division (H7505C)
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460

EPA Reg. Number:

241-340

Date of Issuance:

~~6/28/2002~~
JAN 2 2002
~~2-1-2002~~

NOTICE OF PESTICIDE:
Registration
 Reregistration

(under FIFRA, as amended)

Term of Issuance:

Unconditional

Name of Pesticide Product:

Pendulum WDG Herbicide

Name and Address of Registrant (include ZIP Code):

Dr. Rodney Akers, PhD
BASF Corporation
Agricultural Research Division
P.O. Box 13528
RTP, NC 13528

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby reregistered under the Federal Insecticide, Fungicide and Rodenticide Act.

Reregistration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product reregistered in accordance with FIFRA sec.4(g)(2)(c) provided that you:

1. Submit and/or cite all data required for registration of your product under FIFRA sec. 3(c)(5) when the Agency requires all registrants of similar products to submit such data: and submit acceptable responses required for reevaluation of your product under FIFRA section 4.

Signature of Approving Official:

Date:

2-1-02

2. The Agency has revised its recommended First Aid statements for pesticide products and has issued a PR Notice announcing the changes. We are encouraging registrants to begin using the new statements. The new statements were developed as part of the Consumer Labeling Initiative in close cooperation with poison control center personnel and other medical experts. While it is not mandatory that you revise your label at this time, you are strongly encouraged to substitute the revised statements (below) for those statements currently on the label at your next label printing:

FIRST AID

If on skin or clothing	<p>Take off contaminated clothing.</p> <p>Rinse skin immediately with plenty of water for 15-20 minutes.</p> <p>Call a poison control center or doctor for treatment advice.</p>
If in eyes:	<p>Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.</p> <p>Call a poison control center or doctor for treatment advice.</p>
If inhaled:	<p>Move person to fresh air.</p> <p>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.</p> <p>Call a poison control center or doctor for further treatment advice.</p>
If on skin:	<p>Take off contaminated clothing</p> <p>Rinse skin immediately with plenty of water for 15-20 minutes.</p> <p>Call a poison control center or doctor for treatment advice.</p>

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

2.Modify "Hazards to Human and Domestic Animals" to read:"CAUTION Harmful if absorbed through skin or inhaled. Causes moderate eye irritation. Avoid contact with eyes, skin or clothing. Avoid breathing mist."

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- 3. Modify applicator and other handler PPE and PPE for early entry to read::

Applicators and other handlers must wear:

Long-sleeved shirt and long pants
 Socks and shoes
 Protective Eyeware
 Chemical Resistant Gloves Category A such as
 _____ or _____ or _____;

- 4. Storage and Disposal:

The Storage and Disposal statements should be enclosed in a box and be revised to read as follows;

STORAGE AND DISPOSAL

PESTICIDE STORAGE: Do not store above 120°F. Store in original containers and keep closed. Store in a cool dry place.

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

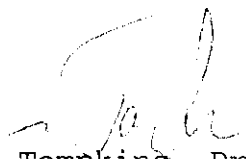
PESTICIDE DISPOSAL: (Keep Current Text)

CONTAINER DISPOSAL (Keep Current Text)

- 5. Policy and Criteria notice 2163.1 states that the Agency will not conduct a detailed review of liability disclaimers or purported buyer agreement to assume responsibility. The approval labels with such statements should not be construed as a decision by the Agency that the language is not misleading and the label language might eventually have to be changed.
- 6. As per the RED, the maximum application rate for residential lawn and sod farm use is 2.0 lbs ai per acre. the label contains directions for use on "other non-residential turf" page 8 of the label that exceed the allowable 2 lbs. per acre rate. If this product is intended for sod farms use then the rates must be revised.

If you have any Questions, please call me at 703-305-5697, or call Wes Allen of my staff at 703-305-5014.

A stamped copy of the label is enclosed for your records



Jim Tompkins, Product Manager 25
 Herbicide Branch
 Registration Division

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PENDULUM WDG
herbicide
water dispersible granule

FOR USE IN TURFGRASSES, ORNAMENTALS, LANDSCAPE OR GROUNDS MAINTENANCE,
AND NONCROPLAND AREAS

ACTIVE INGREDIENT:

pendimethalin, N-(1-ethylpropyl)-3,4-dimethyl-2, 6-dinitrobenzenamine 60.0%

INERT INGREDIENTS 40.0%

TOTAL 100.0%

(1.2 oz. contains .72 oz. of pendimethalin)
(10 lbs. contains 6 lbs. of pendimethalin)
(13.2 lbs. contains 7.9 lbs. of pendimethalin)

EPA Reg. No. 241-340

EPA Est. No.

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.)

STATEMENT OF PRACTICAL TREATMENT

If in eyes: Flush eyes with plenty of water. Call a physician if irritation persists.
If on skin: Wash with plenty of soap and water. Get medical attention if irritation persists.

In case of emergency endangering life or property involving this product, call collect, day or night, Area Code 973-683-3100.

See Inside Leaflet For Additional Precautionary Statements and Directions For Use.

AMERICAN CYANAMID COMPANY
NORTH AMERICA AGRICULTURAL PRODUCTS DIVISION
SPECIALTY PRODUCTS DEPARTMENT
PARSIPPANY, NJ 07054 ©1998

Net Contents:

ACCEPTED
with COMMENTS
In EPA Letter Dated

®Registered Trademark of American Cyanamid Company

FEB - 1 2002
Under the Federal Insecticide,
Fungicide, and Rodenticide Act
as amended, for the pesticide
registered under EPA Reg. No.
241-340

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PENDULUM WDG herbicide

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**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS
CAUTION**

Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with eyes, skin, or clothing.

Personal Protective Equipment (PPE): Applicators and other handlers must wear:

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

Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables, 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.

DIRECTIONS FOR USE

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

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

DO NOT apply this product through any type of irrigation system.

DO NOT use in manufacturing products for weed control.

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
- Waterproof gloves
- Shoes plus socks

NON-AGRICULTURAL 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 sprays have dried.

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

STORAGE AND DISPOSAL

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

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

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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: Paper container:
Completely empty bag into application equipment. DO NOT reuse. Dispose of empty bag in a sanitary landfill or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Plastic container:
Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Observe all cautions and limitations on this label and the labels of products used in combination with PENDULUM WDG herbicide. The use of PENDULUM WDG herbicide not consistent with this label can result in injury to crops, animals, or persons. Keep containers closed to avoid spills and contamination.

DISCLAIMER

The label instructions for use of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and should be followed carefully. However, it is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the use or application of the product contrary to label instructions, all of which are beyond the control of American Cyanamid Company. All such risks shall be assumed by the user.

American Cyanamid Company warrants only that the material contained herein conforms to the chemical description on the label and is reasonably fit for the use therein described when used in accordance with the directions for use, subject to the risk referred to above.

Any damages arising from a breach of this warranty shall be limited to direct damages and shall not include consequential commercial damages such as loss of profits or values or any other special or indirect damages.

American Cyanamid Company makes no other express or implied warranty, including other express or implied warranty of FITNESS or of MERCHANTABILITY.

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GENERAL INFORMATION

PENDULUM WDG herbicide provides preemergence control of most annual grasses and certain broadleaf weeds as they germinate in any turfgrass site (lawns, sod, turf areas). Examples of such sites include, but are not limited to: grounds or lawns around residential and commercial establishments, multifamily dwellings, military and other institutions, parks, airports, roadsides, schools, picnic grounds, athletic fields, houses of worship, cemeteries; golf courses; prairiegrass areas; and sod farms.

PENDULUM WDG herbicide can also be used in and around field, liner, and container grown ornamental nurseries; established landscape ornamentals and ornamental gardens; listed groundcovers and bulbs; nonbearing fruit and nut trees; conifer and hardwood seedling nurseries; and for tree plantation site preparation and maintenance.

In addition, PENDULUM WDG herbicide can be applied for general grounds maintenance around areas such as parking lots, driveways and roadsides, alleyways, bike and jogging paths, vacant lots, buildings, stone gardens and gravel yards, markers and fence lines, mulch beds and other similar areas. It may be used under asphalt or concrete treatments as part of a site preparation program.

PENDULUM WDG herbicide is recommended for preemergence control of most annual grasses and certain broadleaf weeds as they germinate in any noncropland area such as railroad, utility, highway, and pipeline rights-of-way; highway guardrails, delineators, and sign posts; bridge abutments and approaches; utility substations; petroleum tank farms; pumping installations; storage areas; fence rows; windbreaks and shelterbelts; paved or gravel surfaces; established wildflower plantings, and other similar areas where weed control is desired.

PENDULUM WDG herbicide controls weeds as they germinate, but will not control established weeds. Therefore, areas to be treated should be free of established weeds. For the control of established weeds, PENDULUM WDG herbicide may be used in conjunction with herbicides registered for postemergence use. Consult the labels of those herbicides for use rates, timings, and precautions or restrictions.

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.

The efficacy of PENDULUM WDG herbicide will improve if the application is followed by one-half inch of rainfall or its equivalent in sprinkler irrigation. If PENDULUM WDG is not activated by rainfall or irrigation within 30 days, erratic weed control may result.

Applied according to label directions and under normal growing conditions, PENDULUM WDG herbicide or PENDULUM WDG herbicide tank-mix combinations will not cause crop injury. Over-application can result in crop stand loss, crop injury, or soil residues. Uneven application can decrease weed control or cause crop injury.

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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 WDG herbicide.

PENDULUM WDG may cause temporary discoloration of sprayed surfaces. Rinse immediately to avoid staining. Spray colorants or dyes can be added to alter the color of the spray solution to match the treated surfaces.

MIXING INSTRUCTIONS FOR PENDULUM WDG HERBICIDE

Respective sections of this leaflet define recommended PENDULUM WDG herbicide or PENDULUM WDG herbicide registered tank-mix treatments. **Always allow water soluble packets to dissolve before agitating.**

Ground Driven Sprayer:

1. Begin with a clean spray tank. Fill tank one-half to three-quarters full with clean water.
2. PENDULUM WDG herbicide Alone

When using PENDULUM WDG herbicide alone, either premix (1 part product + 2 parts water) or slowly add PENDULUM WDG herbicide to the partially filled tank while agitating until completely dispersed. Fill the remainder of the tank with water.

3. PENDULUM WDG herbicide tank mixes

a. Wettable Powder Formulations

- 1) When using PENDULUM WDG herbicide with a wettable powder formulation, add PENDULUM WDG herbicide to the partially-filled tank while agitating.
- 2) When PENDULUM WDG herbicide is properly mixed, add a slurry of the wettable powder (1 part WP + 2 parts water) slowly into the tank. Fill the remainder of the tank while agitating.

b. Flowable Formulations

- 1) When using PENDULUM WDG herbicide with a flowable formulation, add PENDULUM WDG herbicide to the partially-filled tank while agitating.
- 2) When PENDULUM WDG herbicide is properly mixed, premix one part of the flowable with two parts water and add this diluted mixture slowly into the tank. Fill the remainder of the tank while agitating.

c. Emulsifiable Concentrate Formulations

- 1) When using PENDULUM WDG herbicide with an emulsifiable concentrate formulation, add PENDULUM WDG herbicide to the partially-filled tank while agitating.
- 2) When PENDULUM WDG herbicide is properly mixed, premix one part of the emulsifiable concentrate with two parts water and add this diluted mixture slowly into the tank. Fill the remainder of the tank while agitating.

d. Dry Flowable (Water Dispersible Granule) Formulations

- 1) When using PENDULUM WDG herbicide with a dry flowable formulation, add PENDULUM WDG herbicide to the partially-filled tank while agitating.
- 2) When PENDULUM WDG herbicide is properly mixed, premix one part of the dry flowable with two parts water and add this diluted mixture slowly into the tank. Fill the remainder of the tank while agitating.

4. MAINTAIN CONTINUOUS AGITATION WHILE ADDING HERBICIDES AND UNTIL SPRAYING IS COMPLETED. If the spray mixture is allowed to settle for any period of time, thorough agitation is essential to resuspend the mixture before spraying is resumed. Continue agitation while spraying.

Backpack Sprayer: Begin with a clean spray tank. Fill the spray tank 1/2 full with clean water and add the required amount of PENDULUM WDG herbicide to the sprayer. When using water soluble packets, allow packet to dissolve before agitating. Cap sprayer and agitate to ensure mixing. Uncap sprayer and finish filling tank to desired level. Cap sprayer and agitate once again. During application it is desirable to agitate the mixture on occasion to ensure mixing. If the spray mixture is allowed to settle for any period of time, thorough agitation is essential to resuspend the mixture before spraying is resumed.

Liquid Fertilizers: Prior to mixing, small quantities should always be tested using a simple jar test. Add the required amount of PENDULUM WDG to half filled spray tank while agitating then add the fertilizer product. Complete filling spray tank to desired level.

Dry Bulk Fertilizers: PENDULUM WDG may be impregnated on dry bulk fertilizers. When applied as directed, PENDULUM WDG/Dry Bulk Fertilizer mixtures provide weed control equal to that provided by the same rates of PENDULUM WDG applied in water.

SPRAYING INSTRUCTIONS FOR PENDULUM WDG HERBICIDE

Apply with properly calibrated ground equipment in sufficient water per acre to provide uniform spray distribution (at least 40 gallons of water per acre). Low pressure (e.g. 20-40 psi) sprayers are recommended.

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Maintain continuous agitation during spraying with good mechanical or bypass agitation. Nozzle screens must be no finer than 50 mesh (100 mesh is finer than 50 mesh). Check sprayer routinely to determine proper calibration. Avoid overlaps that will increase rates above those recommended.

Avoid application when winds may cause drift.

Avoid unintentional contact of spray solution with driveways, stone, wood or other porous surfaces. Rinse immediately to avoid staining.

TURFGRASSES

APPLICATION RATES FOR WEED CONTROL

Turfgrass Species	Weeds	Rates of PENDULUM WDG herbicide	Comments
COOL SEASON GRASSES			
Bluegrass, Kentucky	crabgrass	2.5-3.4 lbs./acre	Apply a repeat application of 1.7-2.5 lbs./acre after 6-8 weeks for extended control or where heavy weed infestations are expected.
Fescue, fine	foxtail	as the initial	
Fescue, tall	<u>Poa annua</u>	application prior	
Ryegrass, perennial	barnyardgrass	to weed germination	
	fall panicum	in the spring.	
	oxalis		
	prostrate spurge		
	purslane		
	knotweed		
	evening primrose		
	hop clover		
	goosegrass	2.5-5.0 lbs./acre in the spring prior to weed germination.	Apply a repeat application of 2.5 lbs./acre if the lower rate was used initially or for extended goosegrass control.
	cudweed	2.5-3.4 lbs./acre	Apply in late summer or early fall prior to weed germination.
	<u>Poa annua</u>		
	chickweed		
	lawn burweed		
	henbit		
	corn speedwell		

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Bentgrass* or established <u>Poa annua</u> * (1/2 inch height or taller)	crabgrass	2.5 lbs./acre in the spring prior to weed germination.	Apply a repeat application of 1.7-2.5 lbs./acre after 6-8 weeks where heavy weed infestations are expected.
	foxtail		
	<u>Poa annua</u>		
	barnyardgrass		
	fall panicum		
	oxalis		
	prostrate spurge		
	purslane		
	knotweed		
	evening primrose		
hop clover			
<hr/>			
	goosegrass	2.5 lbs./acre in the spring prior to weed germination. Apply a repeat application of 2.5 lbs./acre after 6-8 weeks.	
<hr/>			
	cudweed	2.5-3.4 lbs./acre	Apply in late summer or early fall prior to weed germination.
	<u>Poa annua</u>		
	chickweed		
	lawn burweed		
	henbit		
	corn speedwell		

*Not for use on greens or tees

WARM SEASON GRASSES

Bahiagrass	crabgrass	2.5-5.0 lbs./acre prior to weed germination in the spring.	Apply a repeat application of 1.7-2.5 lbs./acre after 6-8 weeks if necessary.
Bermudagrass	foxtail		
Buffalograss	<u>Poa annua</u>		
Centipedegrass	barnyardgrass		
Fescue, tall	fall panicum		
St. Augustinegrass	oxalis		
Zoysiagrass	prostrate spurge		
	purslane		
	knotweed		
	evening primrose		
	hop clover		
<hr/>			
	goosegrass	2.5 lbs./acre	An additional

germination in the spring. Apply a repeat application of 2.5-3.4 lbs./acre after 6-8 weeks. 2.5 lbs./acre may be applied for extended goosegrass control 8 weeks after the second application.

cudweed <u>Poa annua</u> chickweed lawn burweed henbit corn speedwell	2.5-3.4 lbs./acre	Apply in late summer or early fall prior to weed germination.
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Bermudagrass greens

crabgrass foxtail <u>Poa annua</u> barnyardgrass fall panicum oxalis prostrate spurge purslane knotweed evening primrose hop clover	2.5 lbs./acre prior to weed germination.	Apply a repeat application of 2.5 lbs./acre after 6-8 weeks if necessary.
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goosegrass	2.5-3.4 lbs./acre prior to weed germination. Apply a repeat application of 2.5 lbs./acre after 6-8 weeks.
------------	---

cudweed <u>Poa annua</u> chickweed lawn burweed henbit corn speedwell	2.5-3.4 lbs./acre	Apply in late summer or early fall prior to weed germination.
--	-------------------	---

The efficacy of PENDULUM WDG herbicide will be improved if the application is followed by one-half inch of rainfall or its equivalent in sprinkler irrigation. If PENDULUM WDG herbicide is not activated by rainfall or irrigation within 30 days, erratic weed control may result.

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TURFGRASS TANK MIXES

PENDULUM WDG herbicide can be mixed with postemergence herbicides to control emerged weeds in turfgrasses. For annual grass control, applications can be made with Acclaim Extra¹ or MSMA to control emerged weeds. Broadleaf weeds can be controlled using Trimec², Three-Way³, 2-4,D, and other similar products.

Before tank mixing a simple jar test is recommended to insure compatability of herbicides.

Refer to manufacturers' labels for specific use directions, precautions, and limitations before tank mixing with PENDULUM WDG herbicide and follow those that are most restrictive.

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 turfgrasses 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 months following the last PENDULUM application. Delay sprigging turfgrass for five 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 WDG herbicide will control annual grasses and broadleaf weeds mentioned in that section of this label as well as the following weeds when they germinate in established grasses in rights-of-way, roadsides, constuction 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, MSMA, or similar products may be tank mixed to control established weeds. Apply according to label instructions for the respective products and follow the most restrictive wording.

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ORNAMENTALS

RECOMMENDED SPECIES

PENDULUM WDG herbicide sprays are safe around and over the top of the established plants listed below.

Refer to APPLICATION RATE TABLE for rates.

TREES

<u>Common Name</u>	<u>Scientific Name</u>
Alder, European Black	<u>Alnus glutinosa</u>
Apple	<u>Malus</u> spp.
Arborvitae, American	<u>Thuja occidentalis</u>
Arbutus	<u>Arbutus</u> spp.
Ash, Red	<u>Fraxinus pennsylvanica</u>
Ash, White	<u>Fraxinus americana</u>
Aspen, Bigtooth	<u>Populus grandidentata</u>
Aspen, Quaking	<u>Populus tremuloides</u>
Basswood	<u>Tilia</u> spp.
Birch, European Weeping	<u>Betula pendula</u>
Birch, River	<u>Betula nigra</u>
Buckeye, Red	<u>Aesculus pavia</u>
Cedar, White	<u>Thuja occidentalis</u>
Chamaecyparis, Boulevard	<u>Chamaecyparis pisifera</u>
Cherry, Black	<u>Prunus serotina</u>
Cherry, Choke	<u>Prunus virginiana</u>
Cherry, Kwanzan	<u>Prunus serrulata</u>
Cherry, Nanking	<u>Prunus tomentosa</u>
Cottonwood	<u>Populus deltoides</u>
Crabapple	<u>Malus</u> spp.
Crepe Myrtle	<u>Lagerstroemia indica</u>
Cryptomeria, Japanese Cedar	<u>Cryptomeria japonica</u>
Cypress, Bald	<u>Taxodium distichum</u>
Cypress, Leyland	<u>Cupressocyparis leylandii</u>
Dogwood, Flowering	<u>Cornus florida</u>
Dogwood, Korean	<u>Cornus kousa</u>
Dogwood, Silky	<u>Cornus amomum</u>
Dogwood, Shrub	<u>Cornus</u> spp.
Elm	<u>Ulmus japonica</u>
Fir, Balsam	<u>Abies balsamae</u>

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, Norway
 Maple, Japanese
 Maple, Red
 Maple, Sugar
 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

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 platanoides
Acer palmatum
Acer rubrum
Acer saccharum
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

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

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

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, 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, Japanese
 Holly, Fosters
 Holly, Savannah
 Holly, Yaupon
 Honeysuckle, Bush
 Hopseed Bush
 Hopbush
 Hydrangea
 Juniper
 Juniper, Chinese
 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

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 fragrans
Zauschneria californica
Gardenia jasminoides
Raphiolepis indica
Hibiscus syriacus
Ilex cornuta
Ilex crenata
Ilex attenuata 'Fosteri'
Ilex attenuata
Ilex vomitoria
Diervilla lonicera
Dodonaea viscosa
Dodonaea viscosa
Hydrangea macrophylla
Juniperus sp.
Juniperus chinensis v. pfitzer
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

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

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 coccinea
Chaenomeles japonica
Leucophyllum frutescens
Ceanothus spp.
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.
Xylosma congestum
Tecoma stans
Taxus media
Taxus cuspidata
Podocarpus macrophyllus
Yucca filamentosa
Yucca pendula

GROUND COVERS

Common Name

Ajuga

Scientific Name

Ajuga reptans

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
 Morninglory
 Myoporum
 Pachysandra
 Potentilla
 Red Apple
 Rosemary
 Rose-Of-Sharon
 Sand Strawberry
 Sedum
 St. Johnswort, Creeping
 Stonecrop
 Verbena, Peruvian
 Vervain
 Vetch, Crown
 Vinca
 Wintercreeper

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 parviflorum
Pachysandra terminalis
Potentilla fruticosa
Aptenia cordifolia
Rosemarinus officinalis
Hypericum calycinum
Fragaria chiloensis
Sedum spurium
Hypericum calycinum
Sedum spurium
Verbena peruviana
Verbena peruviana
Vicia sativa
Vinca minor
Euonymous fortunei

PERENNIALS

Common Name

Acacia
 Asparagus
 Aster, New York
 Aster, Stokes
 Babys Breath
 Beard-Tongue
 Bellflower

Scientific Name

Acacia redolens
Asparagus spp.
Aster novi-belgii
Stokesia laevis
Gypsophila elegans
Penstemon spp.
Campanula spp.

Bird of Paradise
 Black-eyed Susan
 Blanket Flower
 Bleeding Heart
 Butterfly Weed
 California Poppy
 Calla Lily
 Canna, Common Garden
 Carex
 Chinchinchee
 Clover, Crimson
 Columbine
 Coreopsis
 Crinum Lily
 Crocus
 Daffodil
 Daylily
 Fiary Duster
 Fern, Asparagus
 Fern, Boston
 Fern, Leatherleaf
 Fortnight Lily
 Foxglove
 Freesia
 Gaillardia
 Geum
 Gladiolus
 Heather, Dwarf
 Hosta
 Indian Blanket
 Lantana, Weeping
 Leopards Bane
 Lily
 Liriope, Big Blue
 Liriope, Creeping
 Liriope, Variegated
 Moonbeam
 Montbretia
 Nightshade
 Orchid, Peacock
 Oxeye Daisy
 Peony, Chinese
 Purple Coneflower
 Purple Loosestrife
 Rosemary
 Sedge

Caesalpinia pulcherrima
Rudbeckia hirta
Gaillardia x grandiflora
Dicentra spectabilis
Asclepias tuberosa
Eschscholzia californica
Zantedeschia aethiopica
Canna generalis 'Lucifer'
Carex spp.
Ornithogalum thyrsoides
Trifolium incarnatum
Aquilegia 'McKana Giant'
Coreopsis lanceolata
Crinum spp.
Crocus spp.
Narcissus spp.
Hemerocallis spp.
Calliandra eriophylla
Asparagus officinalis
Nephrolepis exaltata
Rumohra adiantiformis
Moraea spp.
Digitalis purpurea
Freesia x hybrida
Gaillardia pulchella
Geum spp.
Gladiolus spp.
Calluna vulgaris
Hosta spp.
Gaillardia pulchella
Lantana montevidensis
Doronicum cordatum
Lilium spp.
Liriope muscari
Liriope spicata
Liriope muscari
Coreopsis verticillata
Crocsmia crocosmiiflora
Solanum spp.
Acidanthera bicolor
Chrysanthemum leucanthemum
Paeonia lactiflora
Echinacea purpurea
Lythrum virgatum
Rosmarinus officinalis
Carex spp.

Shasta Daisy
 Sweet Flag
 Tickseed
 Texas Bluebonnet
 Tulip
 Wisteria
 Wonder Flower
 Yarrow
 Zephyr Lily

Chrysanthemum x superbum
Acorus calamus
Coreopsis lanceolata
Lupinus texensis
Tulipa spp.
Wisteria spp.
Ornithogalum thyrsoides
Achillea millefolium
Zephyranthes spp.

ORNAMENTAL GRASSES

Common Name

Scientific Name

Beach Grass
 Fescue, Blue
 Fescue, Sheep
 Fountain Grass
 Pampas Grass
 Reed Canary Grass
 Reed, Giant
 Ribbon Grass
 Tufted Hair Grass

Ammophila breviligulata
Festuca ovina
Festuca ovina
Pennisetum setaceum
Cortaderia selloana
Phalaris arundinacea
Arundo spp.
Phalaris arundinacea
Deschampsia caespitosa

BEDDING PLANTS

Common Name

Scientific Name

Ageratum
 *Alyssum
 Anemone, Poppy-flowered
 Artemesia
 Balloonflower
 *Begonia
 Cabbage, Ornamental
 Caladium
 Cast-Iron Plant
 *China Aster
 Crocosmia, Montebretia
 *Dahlia
 Dianthus
 Dusty Miller

Ageratum houstonianum
Alyssum saxatile
Anemone coronaria
Artemesia spp.
Platycodon grandiflorum
Begonia spp.
Brassica oleracea
Caladium spp.
Aspidistra elatior
Callistephus chinensis
Crocosmia x crocosmiiflora
Dahlia spp.
Dianthus barbatus
Senecio cineraria

Gayfeather
 Gazania, Treasure Flower
 Gazania, Trailing
 Gloxinia
 Kale, Ornamental
 Marigold, African
 *Moss Rose
 Mum, Garden
 Pansy
 *Periwinkle
 Periwinkle, Rose
 *Petunia
 Plumosa Cockscomb
 *Portulaca
 *Salvia
 *Snapdragon
 *Statice
 Sweet William
 *Vinca

Liatrix spp.
Gazania rigens
Gazania rigens leucolaena
Gloxinia sinningia
Brassica napus
Tagetes erecta
Portulaca grandiflora
Chrysanthemum spp.
Viola tricolor
Vinca major
Catharanthus roseus
Petunia spp.
Celosia cristata
Portulaca grandiflora
Salvia splendens
Antirrhinum majus
Limonium spp.
Dianthus barbatus
Vinca major

*Application of PENDULUM WDG herbicide should not be made sooner than four weeks after transplanting these annuals. Use the lower labeled rate.

PENDULUM WDG HERBICIDE 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 recommended rate. Treated plants should be evaluated 1-2 months following treatment for possible injury. **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.**

ORNAMENTAL BULBS

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

WILDFLOWERS

Pendulum WDG 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 WDG may be applied to established perennial wildflowers before emergence of weeds or wildflowers. For wildflowers being established from seed, apply

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Pendulum WDG after wildflowers have emerged but prior to weed germination. If weeds have already germinated, add 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 WDG herbicide may vary greatly. Careful testing on desirable species is recommended to determine if area-wide applications can be made.

ORNAMENTAL TANK MIXES

Emerged weeds in ornamentals can be controlled using tank mixes containing Roundup⁴, Finale¹, Ornamec², Gallery⁵, Princep⁸, and other similar products. Do not apply sprays containing Roundup or Finale over the top of ornamental plants.

Before tank mixing a simple jar test is recommended to insure compatability of herbicides.

Refer to manufacturers' labels for specific use directions, precautions, and limitations before tank mixing with PENDULUM WDG herbicide and follow those that are most restrictive.

ORNAMENTAL PRECAUTIONS

Apply PENDULUM WDG herbicide to established plantings. DELAY applying PENDULUM WDG herbicide to seedbeds, transplant beds, or liners until plants have become well rooted. 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 WDG herbicide with roots. Directed sprays 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 WDG herbicide or injury may occur.

For container grown ornamentals, delay first application of this product to bareroot liners 2-4 weeks.

LANDSCAPE AND GROUNDS MAINTENANCE

PENDULUM WDG herbicide 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, such as mulch beds, parking areas and roadsides, fencelines and borders, around statuary or monuments, and similar areas, should be free of emerged weeds before application. To remove emerged weeds either cultivate or tankmix PENDULUM WDG with a postemergence product labeled for such use.

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Refer to APPLICATION RATE TABLE for rates. Avoid unintentional contact of spray solution with stone, wood, or other porous surfaces as staining may occur. Rinse immediately to avoid staining.

NON-BEARING FRUIT AND NUT CROPS AND VINEYARDS

PENDULUM WDG herbicide may be applied for preemergence control of most annual grasses and certain broadleaf weeds on the following non-bearing crops:

- | | |
|-----------|-----------------|
| Almond | Olive |
| Apple | Peach |
| Apricot | Pear |
| Cherry | Pecan |
| Citrus | Pistachio |
| Fig | Plum |
| Grape | Prune |
| Nectarine | Walnut, English |

Refer to APPLICATION RATE TABLE for rates.

Apply the spray directly to the ground below the trees or vines. 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 WDG herbicide and roots. Directed sprays where soil and media surfaces are uniformly covered will result in best weed control and plant tolerance. For newly transplanted and one year old grapevines, apply only when they are dormant. Do not apply if buds have started to swell. PENDULUM WDG herbicide may be used where the roots of a fruit, vine, nut, or ornamental plant encroach into a treatable area.

NONCROPLAND AREAS INCLUDING TREE PLANTATIONS

PENDULUM WDG herbicide is recommended for grounds maintenance in noncropland areas; preemergence control of the weed species listed in and around established tree plantations (including Christmas trees); in and around established ornamentals planted in noncropland areas such as highway rights-of-way, and utility substations. PENDULUM WDG herbicide may be used for hardwood and conifer regeneration on conservation reserve program land or similar areas.

Refer to APPLICATION RATE TABLE for rates.

PENDULUM WDG herbicide may be applied at planting or to established trees. When making an application at planting, it is important that slit closure be achieved to prevent PENDULUM

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WDG from directly contacting the tree roots or being washed into the root zone via the open slit or root stunting may occur.

For postemergence control of weeds, tank-mix combinations of PENDULUM WDG herbicide plus Roundup, Finale, or other labeled herbicides are recommended. Refer to approved labeling for species recommendations. Recommended rates for the tank-mix compounds should be determined from the product labels of both PENDULUM WDG herbicide and partner herbicides prior to use. Precaution must be exercised to prevent combination sprays from direct contact with desirable foliage or injury may result. PENDULUM plus diuron or simazine combinations will broaden weed control spectrum, however, use of combinations may restrict PENDULUM WDG herbicide usage in sensitive areas. Refer to manufacturers' labels for specific use directions, precautions, and limitations before use and follow those that are most restrictive.

TOTAL VEGETATIVE CONTROL

PENDULUM WDG may be tank mixed with ARSENAL⁶, Roundup, Karmex⁷, Finale, Oust⁷, diuron, or other products to provide bare ground, or total vegetation control. PENDULUM WDG can be used to provide greater plant selectivity in areas where such action may be desired. Such sites might have roots of landscape vegetation, ornamentals, or desirable trees encroaching into the treated zone. Refer to tankmix partner labels regarding effects on desirable plants. **DO NOT tank mix with ARSENAL in California.**

Applications may be made to existing weeds controlled by the partner herbicide. Recommended rates should be determined from the product labels prior to use. Follow the most restrictive label instructions.

For Kochia: Combinations of PENDULUM WDG with ARSENAL or diuron are recommended if control has been a problem for other herbicides.