

241-416

10/15/2003

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

OFFICE OF  
PREVENTION, PESTICIDES AND  
TOXIC SUBSTANCES

OCT 15 2003

BASF Corporation  
Attn: Rodney Akers  
PO Box 13528  
Research Triangle Park, NC 27709-3528

Dear Mr. Akers:

Subject: Major Label Changes  
Product: Pendulum Aquacap herbicide  
EPA Regulation Number: 241-416  
Submission Date: 09/17/03

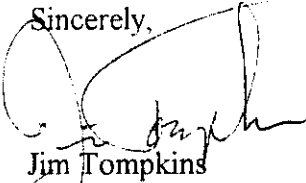
The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended is acceptable, provided you make the following changes before you release the product for shipment.

1. On page 21, under the VEGETATION CONTROL section, change to "Vegetation Control in Ornamental Production."
2. Under CONDITIONS OF SALE, specify what manner of use or application, weather, crop condition, presence of other materials or other influencing factors in use of this product will cause crop injury, ineffectiveness or other unintended consequences. Currently these Conditions of Sale statements are inappropriate for this product, particularly in the first paragraph.
3. Under ENVIRONMENTAL HAZARDS, change "Do not contaminate water when disposing of equipment washwater" to read "Do not contaminate water when disposing of equipment washwater or rinsate."
4. In DIRECTIONS FOR USE add,
  - "Do not apply this product in a way that will contact works or other persons, either directly or through drift. Only protected handlers may be in the area during application."
  - "For requirements specific to your state or tribe, consult the state or tribal agency responsible for pesticide regulation."
5. Under STORAGE AND DISPOSAL, change "Storage" to "Pesticide Storage."
6. Under GENERAL INFORMATION remove "and other similar areas." You must specify specific use sites. On the remainder of the label, remove "or similar areas" or "other similar areas" when they occur.
7. Under GENERAL INFORMATION change "ornamental grasses nd bedding plants" to "ornamental grasses and bedding plants."

8. Specifically prohibit aerial application on label or provide aerial spray drift management language.

Submit three (3) copies of final printed labeling incorporating the above changes before you release the product for shipment. Amended labeling will supercede all previously accepted labels. A stamped copy of labeling is enclosed for your records.

Sincerely,



Jim Tompkins  
Product Manager, Team 25  
Herbicide Branch  
Registration Division

Enclosure

**PENDULUM® AquaCap™ herbicide**

**For Use as a Preemergent Weed Control Herbicide in Turfgrasses, Landscape or Grounds Maintenance, Noncropland Areas and Ornamental Production**

**ACTIVE INGREDIENT:**

pendimethalin, N-(1-ethylpropyl)-3,4-dimethyl-2, 6-dinitrobenzenamine ..... 38.7%

**INERT INGREDIENTS:** ..... 61.3%

**TOTAL** ..... 100.0%

(1 gallon contains 3.8 lbs. of microencapsulated pendimethalin in an aqueous carrier.)

EPA Reg. No. 241-416

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 the label, find someone to explain it to you in detail.)

**FIRST AID**

**If in eyes:** Hold eye open and rinse slowly and gently with water 15-20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing. Call a poison control center or doctor for treatment advice.

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

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

**See next page for Additional Precautionary Statements.**

ACCEPTED  
with COMMENTS  
in EPA Letter Dated  
OCT 15 2003

**Net Contents:**

**BASF Corporation**  
26 Davis Drive  
Research Triangle Park, NC 27709

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

241-416



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**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS**

**CAUTION!**

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

Personal Protective Equipment (PPE):

Some materials that are chemically resistant to these products are listed below. For more options, refer to Category A on an EPA chemical resistance category selection chart.

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical resistance gloves made of any waterproof material such as nitrile, butyl, neoprene, and /or barrier laminate.
- Shoes plus socks

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

<b>User Safety Recommendations</b>
<p>Users should:</p> <ul style="list-style-type: none"> <li>• Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.</li> <li>• Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.</li> <li>• 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.</li> </ul>

**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 herbicide application.

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

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 AquaCap herbicide in greenhouses, shadehouses or other enclosed structures.

Not for use for commercial seed production.

**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 any waterproof material such as nitrile, butyl, neoprene, and/or barrier laminate.
- 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 treated areas without protective clothing 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**

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

**STORAGE:** DO NOT STORE BELOW 15°F. Extended storage at temperatures below 15°F can result in the formation of crystals on the bottom of container. If crystallization does occur, store the container on its side at room temperature (70°F) and rock occasionally until crystals dissolve.

**PESTICIDE**

**DISPOSAL:** Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

**CONTAINER**

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

Observe all cautions and limitations in this label and the labels of products used in combination with PENDULUM<sup>1</sup> AquaCap herbicide. The use of PENDULUM AquaCap 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 the use of this product reflect the opinion of experts based on research and field use. 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. Turf injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the use of, or application of the product contrary to label instructions, all of which are beyond the control of BASF Corporation (BASF). All such risks shall be assumed by the user.

BASF shall not be responsible for losses or damages resulting from use of this product in any manner not set forth on this label. User assumes all risks associated with the use of this product in any manner not specifically set forth on this label.

BASF 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 risks referred to above. **BASF DOES NOT MAKE OR AUTHORIZE ANY AGENT OR REPRESENTATIVE TO MAKE ANY OTHER WARRANTIES, EXPRESS OR IMPLIED AND EXPRESSLY EXCLUDES AND DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.**

**BUYER'S EXCLUSIVE REMEDY AND BASF'S EXCLUSIVE LIABILITY, WHETHER IN CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, SHALL BE LIMITED TO REPAYMENT OF THE PURCHASE PRICE OF PENDULUM AQUACAP herbicide. In no case shall BASF or the seller be liable for consequential, special or indirect damages resulting from the use or handling of this product.**

BASF makes no other express or implied warranty, including other express or implied warranty of **FITNESS** or of **MERCHANTABILITY**. User assumes the risk of any use contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable by BASF.

### MODE OF ACTION

Pendulum AquaCap is a meristematic inhibitor that interferes with the plant cellular division or mitosis and cell elongation in the growing points of shoots and roots of susceptible weeds. When susceptible weeds germinate in the treated area, they contact the herbicide and both shoot and root growth stops. Translocation of the herbicide within the plant is limited. Affected weeds die shortly after growth is stopped, usually before emergence from the soil.

### GENERAL INFORMATION

#### Application Use Sites:

**PENDULUM AquaCap herbicide is recommended for preemergence control of grasses and certain broadleaf weed species as they germinate in any turfgrass site (golf course, lawns, sod farms and other turf areas) and landscape ornamental maintenance 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; prairie grass areas; and sod farms.

**PENDULUM AquaCap herbicide can be applied for general grounds maintenance in 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 AquaCap 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 AquaCap herbicide can also be used in bulb plantings, nonbearing fruit and nut tree nurseries, conifer and hardwood seedling nurseries and tree plantations for site preparation and maintenance.** Applications can be made, but are not limited to, plant species listed on this label such as trees, shrubs, groundcovers, perennials, bulbs, ornamental grasses and bedding plants.

**PENDULUM AquaCap herbicide can be used in and around field, liner and container ornamental production.**

#### Application Instructions:

**PENDULUM AquaCap herbicide will not control established weeds.** Therefore, areas to be treated should be free of established weeds at the time of treatment, or **PENDULUM AquaCap herbicide** may be used in conjunction with herbicides registered for postemergence use in managed turf sites, landscape ornamentals and in other noncropland areas. Consult the labels of those herbicides for suggested treatments, rates to be used and precautions or restrictions for use in these areas.



The efficacy of PENDULUM AquaCap herbicide will improve if the application is followed by one-half inch of rainfall or its equivalent in sprinkler irrigation. If PENDULUM AquaCap 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 AquaCap herbicide or PENDULUM AquaCap 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.

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 AquaCap herbicide.

### MIXING INSTRUCTIONS

#### Ground Driven Sprayer:

1. Fill tank one-half to three-quarters full with clean water.
2. Add PENDULUM AquaCap herbicide to the partially filled tank while agitating and then fill the remainder of the tank with water.
3. MAINTAIN CONTINUOUS AGITATION WHILE ADDING PENDULUM AquaCap HERBICIDE AND UNTIL SPRAYING IS COMPLETED. If the spray mixture is allowed to settle for any period of time, thorough agitation is essential to re-suspend the mixture before spraying is resumed. Continue agitation while spraying.

If PENDULUM AquaCap herbicide is to be used in tank mixtures with other registered herbicides, then follow directions on the labels of those products which recommend tank mixing.

**Backpack Sprayer:** Begin with a clean spray tank. Fill the spray tank  $\frac{1}{2}$  full with clean water and add the required amount of PENDULUM AquaCap herbicide to the sprayer. 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 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 AquaCap herbicide to a half filled spray tank while agitating; then add the fertilizer product. Complete filling spray tank to desired level.

### SPRAYING INSTRUCTIONS

Uniformly apply with properly calibrated ground equipment in sufficient water per acre to uniformly treat the area with a spray pressure of 25 to 50 psi. Suggested spray volumes are 20 – 200 gpa for professional turfgrass, landscape and ornamental applications and 10-200 gpa for all other noncrop applications such as roadsides, utility rights-of-way or soft-residual bareground applications. Maintain continuous agitation during spraying with good mechanical or bypass agitation. 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 with water to avoid staining. Avoid mechanically scrubbing until surface area is thoroughly rinsed. Treated turfgrass should be dry before entering to avoid staining onto non-treated surfaces.

Table 1.  
RESIDENTIAL, GOLF COURSE, COMMERCIAL AND OTHER  
NON-RESIDENTIAL TURFGRASS USES

Application Rates For Preemergence Weed Control

Turfgrass Species	Weeds	PENDULUM AquaCap <sup>1</sup>		Comments
		fl.oz.	pints	
<b>COOL SEASON GRASS</b>				
		Product per 1,000 sq.ft.	Product per acre	
Bluegrass, Kentucky	crabgrass	<b>All Turf Uses:</b>		Apply a repeat application of 2.2 to 3.1 pints/Acre (0.86 to 1.1 oz/1000 sq.ft.) after 5-8 weeks for extended control or where heavy weed infestations are expected.
Fescue, fine	foxtail	1.1 to 1.6 oz	3.1 to 4.2	
Fescue, tall	<i>Poa annua</i>		pints	
Ryegrass, perennial	barnyardgrass	Initial application prior to weed germination in spring.		
	fall panicum			
	oxalis			
	prostrate spurge			
	purslane			
	knotweed			
	evening-primrose			
	hop clover			
	goosegrass	<b>Residential and Sod Farm Turf Uses Only<sup>2</sup>:</b>		
		1.1 to 1.6 oz	3.1 to 4.2 pints	
		<b>Golf Course, Commercial and Other Non-Residential Turf Uses Only:</b>		
		1.1 to 2.3 oz	3.1 to 6.3 pints	
		Initial application prior to weed germination in spring.		

	<p>cudweed <i>Poa annua</i> chickweed lawn burweed henbit corn speedwell</p>	<p><b>All Turf Uses:</b> 1.1 to 1.6 oz    3.1 to 4.2 pints</p>	<p>Apply in late summer or early fall prior to weed germination. Apply a repeat application of 3.1 to 4.2 pints (1.1 to 1.6 oz/1,000 sq.ft.) 5-8 weeks for extended <i>Poa annua</i> control.</p>
<p>Bentgrass or established - <i>Poa annua</i><sup>3</sup> (1/2 inch height or taller)</p>	<p>crabgrass foxtail <i>Poa annua</i> barnyardgrass fall panicum oxalis prostrate spurge purslane knotweed evening-primrose hop clover</p>	<p><b>All Turf Uses (Non Greens and Tees):</b> 1.1 oz.            3.1 pints</p> <p>Initial application prior to weed germination in spring.</p>	<p>Apply a repeat application of 2.2 to 3.1 pints/Acre (0.86 to 1.1 oz/1000 sq.ft.) after 5-8 weeks for extended control or where heavy weed infestations are expected.</p>
	<p>goosegrass</p>	<p>1.1 oz.            3.1 pints</p> <p>Initial application prior to weed germination in spring.</p>	<p>Apply a repeat application of 3.1 pts/Acre (1.1 oz/1000 sq.ft.) for extended goosegrass control after 5-8 weeks.</p>
	<p>cudweed <i>Poa annua</i> chickweed lawn burweed henbit corn speedwell</p>	<p><b>All Turf Uses (Non Greens and Tees):</b> 1.1 to 1.6 oz    3.1 to 4.2 pints</p>	<p>Apply in late summer or early fall prior to weed germination.</p>

WARM SEASON GRASSES		Product per 1,000 sq. ft.	Product per Acre	
Bahiagrass	crabgrass			<p><b>Residential and Sod Farm Turf Uses Only:</b></p> <p>Apply a repeat application of 2.2 to 3.1 pints/Acre (0.86 to 1.1 oz/1000 sq.ft.) after 5-8 weeks if necessary.</p> <p><b>Golf Course, Commercial and Other Non-Residential Turf Uses Only:</b></p> <p>Initial application prior to weed germination in spring.</p>
Bermudagrass	foxtail			
Buffalograss	<i>Poa annua</i>	1.1 to 1.6 oz	3.1 to 4.2	
Centipedegrass	barnyardgrass		pints	
Fescue, tall	fall panicum			
St. Augustinegrass	oxalis			
Zoysiagrass	prostrate spurge			
	purslane	1.1 to 2.3 oz	3.1 to 6.3	
	knotweed		pints	
	evening- primrose			
	hop clover			
	goosegrass	<b>All Turf Uses:</b> 1.1 oz	3.1 pt	
		Apply prior to weed germination in spring. Make a second application at 3.1 pints (1.1 oz/1000 sq.ft.) 5-8 weeks later.		
	cudweed	<b>All Turf Uses:</b> 1.1 to 1.6 oz	3.1 to 4.2	
	<i>Poa annua</i>		pints	
	chickweed			
	lawn burweed			
	henbit			
	corn			
	speedwell			

<sup>1</sup> DO NOT exceed a maximum of 4.2 pints (2.1 quarts) per acre per application for use on residential and sod farm turfgrass.  
 DO NOT exceed a maximum rate of 6.3 pints (3.1 quarts) per acre per application 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.

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

To prevent establishment of weeds along the edges of treated area it may be necessary to overlap the spray three to six inches onto sidewalks or driveways, etc. to ensure effective application rates in these especially vulnerable sites. Where temporary discoloration of pavement is to be avoided, do not rub or scrub surface, rather rinse area immediately using a heavy spray of water to avoid staining. Treated turfgrass should be dry before entering to avoid staining onto non-treated

surfaces.

### TURFGRASS TANK MIXES

PENDULUM AquaCap herbicide can be mixed with postemergence herbicides to control emerged weeds in non-residential turfgrasses. For annual grass control, applications can be made with DRIVE<sup>®</sup> 1 or MSMA to control emerged weeds. Broadleaf weeds can be controlled using Trimec<sup>5</sup>, Three-Way<sup>6</sup>, 2-4,D, and other similar products.

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

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

### TURFGRASS RESTRICTIONS

- Use on well established turfgrass with a dense and uniform stand. On turf that has been thinned or damaged due to winter injury, excessive moisture, etc., allow for turf recovery prior to making an application.
- On newly planted areas, application should not be made until the turfgrass has filled in and has been mowed at least four times. 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 (3) months following the last PENDULUM application.
- Delay sprigging turfgrass for five (5) months after application.

## LANDSCAPE AND GROUNDS MAINTENANCE

PENDULUM AquaCap 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 tank mix PENDULUM AquaCap with a postemergence product labeled for such use.

Not all ornamental species or cultivars of species can be tested for plant safety. Refer to the list of ornamental plant species found in this label. PENDULUM Aquacap herbicide may be used on plant species not listed on this label; however, testing a small number plants at the recommended rate and evaluating for suitability prior to a broad-use application is advised

Refer to **Table 2. Applications Rates For Weed Control In Ornamental Plantings, Tree Plantations and Other Noncropland Areas.** Avoid unintentional contact of spray solution with stone, wood, or other porous surfaces as staining may occur. Rinse surfaces immediately using a heavy spray of water to avoid staining

## ORNAMENTAL PLANTINGS AND TREE PLANTATIONS INCLUDING NONCROPLAND AREAS

PENDULUM AquaCap herbicide is recommended for grounds maintenance in noncropland areas; preemergence control of the weed species listed in and around established tree plantations for site preparation and maintenance and conifer and hardwood seedling nurseries and pulpwood and fiber farms. PENDULUM AquaCap herbicide may be used for hardwood and conifer regeneration on conservation reserve program land or similar areas. Pendulum AquaCap can also be used in Christmas trees and non-bearing fruit and nutcrops and vineyards established, or bulb and wildflower field plantings; in and around established ornamentals planted in noncropland areas such as highway rights-of-way, and utility substations. Refer to **Table 2 Application Rates For Weed Control In Ornamentals Plantings, Tree Plantations and Other Noncropland Areas.**

**Applications at planting or to established trees:** When making an application at planting, it is important that slit closure be achieved to prevent PENDULUM AquaCap from directly contacting the tree roots or being washed into the root zone via the open slit or root stunting may occur. Refer to section on Restrictions and Instructions in Landscape and Ornamental Plantings prior to making an application.

For postemergence control of weeds, tank-mix combinations of PENDULUM AquaCap herbicide plus VANTAGE<sup>1</sup>, Roundup<sup>®2</sup>, Finale<sup>®4</sup>, 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 AquaCap 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 AquaCap 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.

### ORNAMENTAL BULBS

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

### WILDFLOWERS

PENDULUM AquaCap herbicide may be applied for control of susceptible annual weeds in plantings of wildflowers listed in the Perennial section on the label. Those perennial species noted (♦ Black-eyed Susan, California Poppy, Coreopsis, Oxeye Daisy, etc.) have been evaluated for plant tolerance to applications of PENDULUM at 4.2 pints (2.1 quarts) per acre. PENDULUM AquaCap herbicide may be applied to established perennial wildflowers before emergence of weeds or wildflowers. For wildflowers being established from seed, apply PENDULUM AquaCap herbicide no sooner than 4 weeks after wildflowers have emerged but prior to weed germination. If weeds have already germinated, add a labeled postemergence product to control emerged weeds. Refer to all label restrictions prior to making an application.

Due to the diversity of species and varieties, which exist in areas where wildflowers are grown,

the response to PENDULUM AquaCap herbicide may vary greatly. Careful testing on desirable species is recommended to determine if area-wide applications can be made.

**NON-BEARING FRUIT AND NUTCROPS AND VINEYARDS**

PENDULUM AquaCap 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 |

**NONCROPLAND WEED CONTROL**

PENDULUM AquaCap herbicide is recommended for preemergence control of most annual grasses and certain broadleaf weeds as they germinate on noncropland areas such as railroad, utility, highway, and pipeline rights-of-way; highway guardrails, delineators, and sign posts; utility substations; petroleum tank farms; pumping installations; fence rows; storage areas; windbreaks and shelterbelts, and other similar areas.

**INDUSTRIAL (UNIMPROVED) TURF**

PENDULUM AquaCap herbicide will provide preemergence control of the annual grasses and broadleaf weeds listed in Weed Species Controlled section of this label that might germinate in established grasses in rights-of-way, roadsides, construction sites, parks, substations, lots, or similar areas.

Apply before weeds germinate. A postemergence herbicide such as 2,4-D, DRIVE, VANTAGE, 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.

**TOTAL VEGETATION CONTROL**

PENDULUM AquaCap herbicide may be tank mixed with ARSENAL<sup>®1</sup>, SAHARA<sup>®1</sup>, PLATEAU<sup>®1</sup>, VANTAGE<sup>®</sup>, Roundup PRO<sup>2</sup>, Karmex<sup>®3</sup>, Finale<sup>4</sup>, Oust<sup>3®</sup>, diuron, glyphosate or other products to provide bare ground, or total vegetation control. PENDULUM AquaCap herbicide 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 tank mix partner labels regarding effects on desirable plants. DO NOT tank mix with ARSENAL, SAHARA or PLATEAU herbicides 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 control combinations of PENDULUM AquaCap herbicide with ARSENAL herbicide or diuron are recommended if control has been a problem for other herbicides.

**TABLE 2  
APPLICATION RATES FOR WEED CONTROL  
IN LANDSCAPE ORNAMENTALS, TREE PLANTINGS,  
AND OTHER NONCROP AREAS**

For preemergence control of the weed species listed, apply PENDULUM AquaCap herbicide at the following rates:

Length of Control	PENDULUM AQUAP herbicide	Fluid Ounces Required To Treat 1000 sq. ft.
Short Term Control (2-4 months)	2.1 Quarts/Acre	1.6 oz.
Long Term Control (6-8 months)	4.2 Quarts/Acre	3.2oz.

\*For all turfgrass weed control rates refer to Table 1 instructions.

For extended weed control repeat applications of PENDULUM AquaCap can be made.

**INSTRUCTIONS AND RESTRICTIONS<sup>1</sup>  
LANDSCAPE AND ORNAMENTAL PLANTINGS**

Site	Application Instructions and Restrictions
Landscape Plantings <sup>3</sup>	<ol style="list-style-type: none"> <li>DO NOT apply to newly-transplanted ornamentals until plants have been watered and soil has been thoroughly packed and settled around roots.</li> <li>Apply as a directed or over-the-top spray.</li> <li>It is recommended to Use the lowest labeled rate when making applications to annuals. Repeat applications can be made for extended landscape weed control.</li> </ol>
Ornamental Bulbs <sup>2</sup>	<ol style="list-style-type: none"> <li>PENDULUM AquaCap herbicide may be applied to bulb species listed on the label</li> <li>Apply prior to, during or after bulb emergence, but not during bloom.</li> </ol>
Wildflowers <sup>2</sup>	<ol style="list-style-type: none"> <li>PENDULUM AquaCap herbicide may be applied in plantings of wildflowers listed on the label. Refer to specific instructions (♦) for rate and plant tolerance.</li> <li>For wildflowers being established from seed, apply at 4 weeks after wildflowers have germinated, but prior to weed seed germination.</li> </ol>

<sup>1</sup> Plant only those desirable plant species listed on this label into soil treated the previous

season with PENDULUM AquaCap herbicide or injury may occur.

<sup>2</sup> Do not treat plants grown for food or feed. Do not use treated plants for food or feed.

<sup>3</sup> It is recommended that before treating a large number of plants, spray a few plants and observe for 1-2 months for plant damage prior to full-scale application.

### **Hand-held Spray Equipment:**

Use the table above to determine the amount of PENDULUM AquaCap herbicide to be applied per 1000 square feet. The amount of water used for the application is not critical but should be sufficient for thorough coverage without runoff. Calibration of backpack or other hand-held equipment will vary with each operator. Determine the amount of water needed to treat 1000 square feet before mixing the spray solution. Follow information in MIXING INSTRUCTIONS section of this label.

PENDULUM AquaCap herbicide will not control established weeds. If weeds should germinate prior to activation of herbicide, shallow cultivate to destroy existing weeds or, where practical, remove by hand. When cultivating for any reason, it should be shallow. PENDULUM AquaCap herbicide may be used in conjunction with herbicides registered for postemergence use (i.e. Roundup or Finale) for the control of established weeds. Do not apply sprays containing Roundup or Finale over the top of desirable plants. A PENDULUM AquaCap herbicide treatment may be followed by any registered herbicide to control weeds not listed on the PENDULUM AquaCap herbicide label.

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

The following grass and broadleaf weeds are controlled by preemergence treatments of PENDULUM AquaCap herbicide at the above-recommended rates.

### **GRASSES CONTROLLED**

#### **Common Name**

#### **Scientific Name**

Barnyardgrass	<i>Echinochloa crus-galli</i>
Bluegrass, Annual	<i>Poa annua</i>
Crabgrass	<i>Digitaria</i> spp.
Crowfootgrass	<i>Dactyloctenium aegyptium</i>
Foxtail, Giant	<i>Setaria faberi</i>
Foxtail, Green	<i>Setaria viridis</i>
Foxtail, Yellow	<i>Setaria glauca</i>
Goosegrass	<i>Eleusine indica</i>
Itchgrass	<i>Rottboellia exaltata</i>
Johnsongrass (from seed)	<i>Sorghum halepense</i>
Junglerice	<i>Echinochloa colona</i>
Lovegrass (from seed)	<i>Eragrostis</i> spp.

Panicum, Browntop  
Panicum, Fall  
Panicum, Texas  
Sandbur, Field  
Signalgrass  
Sprangletop, Mexican  
Sprangletop, Red  
Witchgrass  
Woolly Cupgrass

*Panicum fasciculatum*  
*Panicum dichotomiflorum*  
*Panicum texanum*  
*Cenchrus incertus*  
*Brachiaria platyphylla*  
*Leptochloa uninervia*  
*Leptochloa filiformis*  
*Panicum capillare*  
*Eriochloa villosa*

**BROADLEAF WEEDS CONTROLLED**

**Common Name**

**Scientific Name**

Burweed, Lawn  
Carpetweed  
Chickweed, Common  
Chickweed, Mouseear  
Clover, Hop  
Cudweed  
Eveningprimrose  
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)

*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*  
*Sisymbrium irio*  
*Capsella bursa-pastoris*  
*Polygonum pensylvanicum*  
*Veronica arvensis*  
*Euphorbia spp.*  
*Euphorbia humistrata*  
*Oxalis stricta*  
*Abutilon theophrasti*

**COMMERCIAL ORNAMENTAL PRODUCTION**

**GENERAL INFORMATION**

**Application Use Sites:** PENDULUM AquaCap herbicide can be used in and around field, liner and container ornamental production.

PENDULUM AquaCap herbicide sprays are safe around and over the top of the established

plants listed in Table 4 of this label. However, not all varieties or strains of the plant species listed have been tested. Refer to ornamental instructions and restrictions in this label prior to any application of PENDULUM AquaCap herbicide. Unintentional consequences such as crop injury may result because of certain environmental or growing conditions, manner of use or application. Therefore, before treating a large number of plants, spray a few plants and observe for plant damage prior to full-scale application.

**Application Instructions:**

PENDULUM AquaCap herbicide will not control established weeds. Therefore, areas to be treated should be free of established weeds at the time of treatment, or PENDULUM AquaCap herbicide may be used in conjunction with herbicides registered for postemergence use in ornamentals and vegetation control sites. Consult the labels of those herbicides for suggested treatments, rates to be used and precautions or restrictions for use in these areas.

The efficacy of PENDULUM AquaCap herbicide will improve if the application is followed by one-half inch of rainfall or its equivalent in sprinkler irrigation. If PENDULUM AquaCap 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 AquaCap herbicide or PENDULUM AquaCap 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.

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 AquaCap herbicide.

**MIXING INSTRUCTIONS**

**Ground Driven Sprayer:**

1. Fill tank one-half to three-quarters full with clean water.
2. Add PENDULUM AquaCap herbicide to the partially filled tank while agitating and then fill the remainder of the tank with water.
3. MAINTAIN CONTINUOUS AGITATION WHILE ADDING PENDULUM AquaCap HERBICIDE AND UNTIL SPRAYING IS COMPLETED. If the spray mixture is allowed to settle for any period of time, thorough agitation is essential to re-suspend the mixture before spraying is resumed. Continue agitation while spraying.

If PENDULUM AquaCap herbicide is to be used in tank mixtures with other registered herbicides, then follow directions on the labels of those products which recommend tank mixing.

**Backpack Sprayer:** Begin with a clean spray tank. Fill the spray tank ½ full with clean water and add the required amount of PENDULUM AquaCap herbicide to the sprayer. 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 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 AquaCap herbicide to a half filled spray tank while agitating; then add the fertilizer product. Complete filling spray tank to desired level.

### SPRAYING INSTRUCTIONS

Uniformly apply with properly calibrated ground equipment in suggested spray volumes of 20 – 200 gpa for ornamental applications to uniformly treat the area with a spray pressure of 25 to 50 psi. Maintain continuous agitation during spraying with good mechanical or bypass agitation. 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 with water to avoid staining. Avoid mechanically scrubbing until surface area is thoroughly rinsed using a heavy spray of water.

**INSTRUCTIONS AND RESTRICTIONS<sup>1</sup>  
IN PRODUCTION ORNAMENTALS**

<b>Site</b>	<b>Application Instructions and Restrictions</b>
Newly-Transplanted Field-Grown Nursery Stock <sup>2,3</sup>	<ol style="list-style-type: none"> <li>1. DO NOT make over-the top applications at time of field transplanting. Use shielded sprayer until plantings have been established for one (1) year or more in the field.</li> <li>2. DO NOT apply until transplants have been watered and soil has been thoroughly packed and settled around transplants. Care must be taken to ensure there are no cracks in the soil where PENDULUM AquaCap could come into contact with the roots.</li> <li>3. DO NOT apply during bud swell, bud break or at time of first flush of new growth.</li> <li>4. Direct sprays away from graphed or budded tissue on transplants at all times.</li> </ol>
Newly Transplanted Container-Grown Nursery Stock <sup>2,3</sup>	<ol style="list-style-type: none"> <li>1. DO NOT apply until transplants have been watered and soil has been thoroughly packed and settled around transplants. Care must be taken to ensure there are no cracks in the soil where PENDULUM AquaCap could come into contact with the roots.</li> <li>2. For container grown ornamentals, delay first application of the product to bareroot liners for two (2) weeks after transplanting.</li> <li>3. DO NOT apply during bud swell, bud break or at time of first flush of new growth.</li> <li>4. Direct sprays away from graphed or budded tissue on transplants at all times.</li> </ol>
Established Container, or Field-Grown Nursery Stock <sup>2,3</sup>	<ol style="list-style-type: none"> <li>1. DO NOT apply during bud swell, bud break or at time of first flush of new growth.</li> <li>2. Apply as a directed or over-the-top spray.</li> <li>3. If newly budded or graphed rootstock make a application using a shielded sprayer.</li> <li>4. Care must be taken to ensure there are no cracks in the soil where PENDULUM AquaCap could come into contact with the roots.</li> </ol>
Bare Ground for Container Placement	<ol style="list-style-type: none"> <li>1. Apply to soil then water in (including mulch, gravel, wood chips, or other permeable base); replace containerized ornamentals onto pad.</li> </ol>
Greenhouses, shadehouses or other enclosed structures.	DO NOT APPLY in greenhouses, shadehouses or other enclosed structures.

<sup>1</sup> Plant only those desirable plant species listed on this label into soil treated the previous season with PENDULUM AquaCap herbicide or injury may occur.

<sup>2</sup>It is recommended that before treating a large number of plants, spray a few plants and observe for 1-2 months for plant damage prior to full-scale application.

<sup>3</sup>Do not treat plants grown for food or feed. Do not use treated plants for food or feed.  
Refer to **Table 3. Application Rates For Weed Control In Production Ornamentals.**

**ORNAMENTAL TANK MIXES**

Emerged weeds in ornamentals can be controlled using tank mixes containing VANTAGE, Roundup, Finale, Ornamec<sup>5</sup>, Gallery<sup>5</sup> Princep<sup>8</sup>, 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 compatibility of herbicides.

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

**CHRISTMAS TREE PLANTATIONS**

PENDULUM AquaCap is recommended for use in and around Christmas tree plantations. PENDULUM AquaCap 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 AquaCap 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 AquaCap herbicide plus VANTAGE, 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 AquaCap 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 AquaCap herbicide usage in sensitive areas. Refer to manufacturers' labels for specific use directions, precautions, and limitations before use and follow those that Refer to **Table 3. Application Rates For Weed Control In Production Ornamentals.**

**VEGETATION CONTROL**

PENDULUM AquaCap herbicide is recommended for preemergence control of most annual grasses and certain broadleaf weeds as they germinate on noncropland areas such as sign posts; pumping installations; fence rows; storage areas; windbreaks and shelterbelts, and other similar areas. PENDULUM AquaCap herbicide may be tank mixed with VANTAGE, Roundup PRO, Karmex, Finale, diuron, glyphosate or other products to provide bare ground; or, total vegetation control; or, 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 tank mix partner labels regarding effects on desirable plants. 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. Refer to **Table 3. Application Rates For Weed Control In Production Ornamentals.**

**Table 3.**  
**APPLICATION RATES FOR WEED CONTROL**  
**IN PRODUCTION ORNAMENTALS\***

For preemergence control of the weed species listed, apply PENDULUM AquaCap herbicide at the following rates:

Length of Control	PENDULUM AQUACAP herbicide	Fluid Ounces Required To Treat 1000 sq. ft.
Short Term Control (2-4 months)	2.1 Quarts/Acre	1.6 oz.
Long Term Control (6-8 months)	4.2 Quarts/Acre	3.2oz.

\*For extended weed control repeat applications of PENDULUM AquaCap can be made.

**Hand-held Spray Equipment:**

Use the table above to determine the amount of PENDULUM AquaCap to be applied per 1000 square feet. The amount of water used for the application is not critical but should be sufficient for thorough coverage without runoff. Calibration of backpack or other hand-held equipment will vary with each operator. Determine the amount of water needed to treat 1000 square feet before mixing the spray solution. Follow information in MIXING INSTRUCTIONS section of this label.

PENDULUM AquaCap herbicide will not control established weeds. If weeds should germinate prior to activation of herbicide, shallow cultivate to destroy existing weeds or, where practical, remove by hand. When cultivating for any reason, it should be shallow. PENDULUM AquaCap herbicide may be used in conjunction with herbicides registered for postemergence use (i.e. Roundup or Finale) for the control of established weeds. Do not apply sprays containing Roundup or Finale over the top of desirable plants. A PENDULUM AquaCap herbicide treatment may be followed by any registered herbicide to control weeds not listed on the PENDULUM AquaCap herbicide label.

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

The following grass and broadleaf weeds are controlled by preemergence treatments of PENDULUM AquaCap herbicide at the above-recommended rates.

**GRASSES CONTROLLED**

**Common Name**

**Scientific Name**

- Barnyardgrass
- Bluegrass, Annual
- Crabgrass
- Crowfootgrass
- Foxtail, Giant
- Foxtail, Green
- Foxtail, Yellow
- Goosegrass

- Echinochloa crus-galli*
- Poa annua*
- Digitaria* spp.
- Dactyloctenium aegyptium*
- Setaria faberi*
- Setaria viridis*
- Setaria glauca*
- Eleusine indica*



Itchgrass  
 Johnsongrass (from seed)  
 Junglerice  
 Lovegrass (from seed)  
 Panicum, Browntop  
 Panicum, Fall  
 Panicum, Texas  
 Sandbur, Field  
 Signalgrass  
 Sprangletop, Mexican  
 Sprangletop, Red  
 Witchgrass  
 Woolly Cupgrass

*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

#### Scientific Name

Burweed, Lawn  
 Carpetweed  
 Chickweed, Common  
 Chickweed, Mouseear  
 Clover, Hop  
 Cudweed  
 Eveningprimrose  
 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)

*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*  
*Sisymbrium irio*  
*Capsella bursa-pastoris*  
*Polygonum pennsylvanicum*  
*Veronica arvensis*  
*Euphorbia* spp.  
*Euphorbia humistrata*  
*Oxalis stricta*  
*Abutilon theophrasti*

### Table 4 RECOMMENDED ORNAMENTAL SPECIES

PENDULUM AquaCap herbicide sprays are safe around and over the top of the established plants listed below. Refer to Ornamental Instructions and Restrictions prior to application. Refer to Table 3. Application Rates For Weed Control Production Ornamentals.

TREES

<u>Common Name</u>	<u>Scientific Name</u>
Alder, European Black	<i>Alnus glutinosa</i>
Apple	<i>Malus</i> spp.
Arborvitae, American	<i>Thuja occidentalis</i>
Arbutus	<i>Arbutus</i> spp.
Ash, Red	<i>Fraxinus pennsylvanica</i>
Ash, White	<i>Fraxinus americana</i>
Aspen, Bigtooth	<i>Populus grandidentata</i>
Aspen, Quaking	<i>Populus tremuloides</i>
Basswood	<i>Tilia</i> spp.
Birch, European Weeping	<i>Betula pendula</i>
Birch, River	<i>Betula nigra</i>
Buckeye, Red	<i>Aesculus pavia</i>
Cedar, White	<i>Thuja occidentalis</i>
Chamaecyparis, Boulevard	<i>Chamaecyparis pisifera</i>
Cherry, Black	<i>Prunus serotina</i>
Cherry, Choke	<i>Prunus virginiana</i>
Cherry, Kwanzan	<i>Prunus serrulata</i>
Cherry, Nanking	<i>Prunus tomentosa</i>
Cottonwood	<i>Populus deltoides</i>
Crabapple	<i>Malus</i> spp.
Crepe Myrtle	<i>Lagerstroemia indica</i>
Cryptomeria, Japanese Cedar	<i>Cryptomeria japonica</i>
Cypress, Bald	<i>Taxodium distichum</i>
Cypress, Leyland	<i>Cupressocyparis leylandii</i>
Dogwood, Flowering	<i>Cornus florida</i>
Dogwood, Korean	<i>Cornus kousa</i>
Dogwood, Silky	<i>Cornus amomum</i>
Dogwood, Shrub	<i>Cornus</i> spp.
Elm	<i>Ulmus japonica</i>
Elm, Winged	<i>Ulmus alata</i>
Eucalyptus (Silver-dollar) tree	<i>Eucalyptus cinera</i>
Fir, Balsam	<i>Abies balsamiae</i>
Fir, Douglas	<i>Pseudotsuga menziesii</i>
Fir, Fraser	<i>Abies fraseri</i>
Fir, White	<i>Abies concolor</i>
Franklinia	<i>Franklinia</i> spp.
Fringe tree	<i>Chlonenthus retusus</i>
Ginkgo	<i>Ginkgo biloba</i>
Gum, Black	<i>Nyssa sylvatica</i>
Gum, Sour	<i>Nyssa sylvatica</i>
Haw, Black	<i>Viburnum prunifolium</i>
Hawthorn	<i>Crataegus</i> spp.
Hemlock, Canada	<i>Tsuga canadensis</i>
Hemlock, Eastern	<i>Tsuga canadensis</i>

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  
 Pine, Scotch  
 Pine, Virginia  
 Pine, White  
 Plum, Purple Leaf  
 Poplar, Black  
 Redcedar, Eastern  
 Redcedar, Western  
 Red Ironbark  
  
 Redwood, Dawn  
  
 Sequoia, Giant  
 Serviceberry  
 Sourwood

*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*  
*Pinus sylvestris*  
*Pinus virginiana*  
*Pinus strobus*  
*Prunus cerasifera*  
*Populus nigra*  
*Juniperus virginiana*  
*Thuja plicata*  
*Eucalyptus sideroxyylon*  
 'Rosea'  
*Metasequoia*  
*glyptostrobooides*  
*Sequoiadendron giganteum*  
*Amelanchier laevis*  
*Oxydendrum arboreum*

Spruce, Colorado Blue  
 Spruce, Dwarf Alberta  
 Spruce, Norway  
 Spruce, White  
 Sweetgum  
 Sycamore  
 Trachycarpus  
 Tulip tree  
 Walnut, Black  
 Willow, Weeping  
 Yellowwood

*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  
 Alder, Witch  
 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, Bayberry  
 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

Scientific Name  
*Abelia grandiflora*  
*Fothergilla gardenii*  
*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 fragrans*  
*Zauschneria californica*

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  
 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

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  
 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

Redroot  
Rhododendron  
Robira  
Rose  
Spice Plant  
Spiraea  
Spiraea, Anthony Waterer  
Spiraea, Japanese  
Sweet Bay  
Trumpet Bush  
Verbena, Lemon  
Viburnum  
Vitex  
Weigela  
Wild Lilac  
Wisteria  
Xylosma  
Yellowbells

Ceanothus spp.  
Rhododendron spp.  
Pittosporum tobira  
Rosa spp.  
Illicium parviflorum  
Spiraea vanhouttei  
Spiraea X humalda  
Spiraea japonica  
Laurus nobilis  
Tecoma stans  
Aloysia triphylla  
Viburnum suspensum  
Vitex spp.  
Weigela florida  
Ceanothus spp.  
Wisteria spp.  
Xylosma congestum  
Tecoma stans

Yew \*  
 Yew, Japanese\*  
 Yew, Southern\*  
 Yucca, Adam's Needle  
 Yucca, Weeping

*Taxus media*  
*Taxus cuspidata*  
*Podocarpus macrophyllus*  
*Yucca filamentosa*  
*Yucca pendula*

*\*Applications of PENDULUM aquaCap should not be made during spring growth or injury to terminals may occur.*

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

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 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

<b>Common Name</b>	<b>Scientific Name</b>
Acacia	<i>Acacia redolens</i>
Asparagus	<i>Asparagus</i> spp.
Aster, New York	<i>Aster novi-belgii</i>
Aster, Stokes	<i>Stokesia laevis</i>
Astilbe (False Spirea)	<i>Astilbe</i> spp.
Avens	<i>Geum triflorum</i>
Babys Breath	<i>Gypsophila elegans</i>
Babys Breath	<i>Gypsophila paniculata</i>
Beard-Tongue	<i>Penstemon</i> spp.
Bellflower	<i>Campanula</i> spp.
Bellflower, Willow	<i>Campanula persicifolia</i>
Bird of Paradise	<i>Caesalpinia pulcherrima</i>
Black-eyed Susan ♦	<i>Rudbeckia hirta</i>
Blanket Flower ♦	<i>Gaillardia aristata</i>
Blanket Flower ♦	<i>Gaillardia x grandiflora</i>
Bleeding Heart	<i>Dicentra spectabilis</i>
Butterfly Weed	<i>Asclepias tuberosa</i>
California Poppy	<i>Eschscholzia californica</i>
Calla Lily	<i>Zantedeschia aethiopica</i>
Canna, Common Garden	<i>Canna generalis</i> 'Lucifer'
Carex	<i>Carex</i> spp.
Chincherinchee	<i>Ornithogalum thyrsoides</i>
Clover, Crimson ♦	<i>Trifolium incarnatum</i>
Columbine	<i>Aquilegia</i> 'McKana Giant'
Columbine	<i>Aquilegia x hybrida</i>
Coreopsis (tickseed) ♦	<i>Coreopsis lanceolata</i>
Crinum Lily	<i>Crinum</i> spp.
Crocus	<i>Crocus</i> spp.
Daffodil	<i>Narcissus</i> spp.
Daylily	<i>Hemerocallis</i> spp.
Fiary Duster	<i>Calliandra eriophylla</i>
Fern, Asparagus	<i>Asparagus officinalis</i>
Fern, Boston	<i>Nephrolepis exaltata</i>
Fern, Hay-scented	<i>Dennstaedtia punctilobula</i>
Fern, Leatherleaf*	<i>Rumohra adiantiformis</i>
Fortnight Lily	<i>Moraea</i> spp.
Foxglove	<i>Digitalis purpurea</i>
Freesia	<i>Freesia x hybrida</i>
Gaillardia	<i>Gaillardia pulchella</i>
Geum	<i>Geum</i> spp.
Gladiolus	<i>Gladiolus</i> spp.
Heather, Dwarf	<i>Calluna vulgaris</i>
Hosta	<i>Hosta</i> spp.
Indian Blanket ♦	<i>Gaillardia pulchella</i>
Iris, Japanese	<i>Iris kaempferi</i>



Lantana, Weeping  
 Leopards Bane  
 Lily  
 Liriope, Big Blue  
 Liriope, Creeping  
 Liriope, Variegated  
 Moonbeam  
 Montbretia  
 Mugwort, Western  
 Nightshade  
 Orchid, Peacock  
 Oxeye Daisy ♦

Palm, Areca  
 Palm, Pygmy Date  
 Palm, Washington  
 Peony, Chinese  
 Purple Coneflower ♦  
 Purple Gay-feather  
 Purple Loosestrife  
 Rodgersia  
 Rosemary  
 Sedge  
 Shasta Daisy ♦

Statice  
 Statice, German  
 Sweet Flag  
 Tickseed ♦  
 Texas Bluebonnet  
 Tulip  
 Wonder Flower  
 Yarrow ♦  
 Zephyr Lily

*Lantana montevidensis*  
*Doronicum cordatum*  
*Lilium* spp.  
*Liriope muscari*  
*Liriope spicata*  
*Liriope muscari*  
*Coreopsis verticillata*  
*Crocsmia crocosmiiflora*  
*Artemesia ludoviciana*  
*Solanum* spp.  
*Acidanthera bicolor*  
*Chrysanthemum leucanthemum*  
*Chysalidocarpus lutescens*  
*Phoenix roebelenae*  
*Washington robusta*  
*Paeonia lactiflora*  
*Echinacea purpurea*  
*Liatris pycnostachys*  
*Lythrum virgatum*  
*Rodgersia henricie*  
*Rosmarinus officinalis*  
*Carex* spp.  
*Chrysanthemum x superbum*  
*Limonium latifolia*  
*Goniolimon tartaricum*  
*Acorus calamus*  
*Coreopsis lanceolata*  
*Lupinus texensis*  
*Tulipa* spp.  
*Ornithogalum thyrsoides*  
*Achillea millefolium*  
*Zephyranthes* spp.

- \* *Applications of PENDULUM AquaCap herbicide to immature ferns (during periods of new growth of fronds) may result in some injury.*
- ♦ *These plants have shown tolerance to PENDULUM AquaCap applications of 4.2 pints (2.1 quarts) in wildflower plantings established from seed.*

**ORNAMENTAL GRASSES**

Common Name  
 Beach Grass  
 Fescue, Blue  
 Fescue, Sheep  
 Fountain Grass  
 Pampas Grass  
 Reed Canary Grass  
 Reed, Giant

Scientific Name  
*Ammophila breviligulata*  
*Festuca ovina*  
*Festuca ovina*  
*Pennisetum setaceum*  
*Cortaderia selloana*  
*Phalaris arundinacea*  
*Arundo* spp.

Ribbon Grass  
Tufted Hair Grass

*Phalaris arundinacea*  
*Deschampsia caespitosa*

**BEDDING PLANTS**

<u>Common Name</u>	<u>Scientific Name</u>
Ageratum	<i>Ageratum houstonianum</i>
Alyssum*	<i>Alyssum saxatile</i>
Anemone, Poppy-flowered	<i>Anemone coronaria</i>
Artemesia	<i>Artemesia</i> spp.
Balloonflower	<i>Platycodon grandiflorum</i>
Begonia*	<i>Begonia</i> spp.
Cabbage, Ornamental	<i>Brassica oleracea</i>
Caladium	<i>Caladium</i> spp.
Cast-Iron Plant	<i>Aspidistra elatior</i>
China Aster*	<i>Callistephus chinensis</i>
Crocsmia, Montebretia	<i>Crocsmia x</i> <i>crocsmiiflora</i>
Dahlia*	<i>Dahlia</i> spp.
Dianthus	<i>Dianthus barbatus</i>
Dusty Miller	<i>Senecio cineraria</i>
Gayfeather	<i>Liatris</i> spp.
Gazania, Treasure Flower	<i>Gazania rigens</i>
Gazania, Trailing	<i>Gazania rigens leucolaena</i>
Gloxinia	<i>Gloxinia simningia</i>
Kale, Ornamental	<i>Brassica napus</i>
Marigold, African	<i>Tagetes erecta</i>
Moss Rose*	<i>Portulaca grandiflora</i>
Mum, Garden	<i>Chrysanthemum</i> spp.
Periwinkle*	<i>Vinca major</i>
Periwinkle, Rose	<i>Catharanthus roseus</i>
Petunia*	<i>Petunia</i> spp.
Plumosa Cockscomb	<i>Celosia cristata</i>
Portulaca*	<i>Portulaca grandiflora</i>
Salvia*	<i>Salvia splendens</i>
Snapdragon	<i>Antirrhinum majus</i>
Statice*	<i>Limonium</i> spp.
Sweet William	<i>Dianthus barbatus</i>
Vinca*	<i>Vinca major</i>

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

PENDULUM AquaCap 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.

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