

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

EPA Reg. No. 241-416

EPA Est. No.

# KEEP OUT OF REACH OF CHILDREN CAUTION/PRECAUCIÓN

Si usted no entiende la etiqeta, 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.)

See next page for First Aid instructions and additional Precautionary Statements

For more information, please visit our web site www.turffacts.com



### **FIRST AID**

### If in eyes

- Hold eye open and rinse slowly and gently with water for 15-20 minutes.
- Remove contact lenses, if present, after first 5 minutes, then continue rinsing eye.
- 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).

# 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-resistant 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.

### **ENGINEERING CONTROLS**

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170.240)(d)(4-6), the handler PPE requirements may be reduced or modified as specified in the WPS.

### **USER SAFETY RECOMMENDATIONS**

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product.
   Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

### **ENVIRONMENTAL HAZARDS**

This product is toxic to fish. **DO NOT** apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Drift and runoff from treated areas may be hazardous to aquatic organisms in adjacent aquatic sites. **DO NOT** contaminate water when disposing of equipment washwaters or rinsate.

# **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 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 requirements specific to your state or tribe, consult the state or tribal agency responsible for pesticide regulation.

**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.

**PESTICIDE 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® AquaCap™ herbicide**. The use of **PENDULUM AquaCap** 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**. 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 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 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, and mulch beds. 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-ofway, 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, and established wildflower plantings where weed control is desired.

**PENDULUM AquaCap can also be used in** bulb plantings, non-bearing 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 can be used in and around field, liner and container ornamental production.

### **APPLICATION INSTRUCTIONS:**

PENDULUM AquaCap will not control established weeds. Therefore, areas to be treated should be free of established weeds at the time of treatment, or PENDULUM AquaCap 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 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** or **PENDULUM AquaCap** 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**.

### MIXING INSTRUCTIONS

**PENDULUM AquaCap** may be applied in a tank mix or a sequential application with other herbicides registered for use in a given crop. Refer to the companion label for weeds controlled in addition to **PENDULUM AquaCap** alone.

When using tank mixtures or sequential applications with **PENDULUM AquaCap**, always read the companion product label(s) to determine the specific use rates by soil types, weed species, and weed or crop growth stage. In addition, follow all precautions and restrictions including state and local use restrictions that may apply to specific products. Always follow the most restrictive label.

### **Mixing Instructions**

 Fill tank 1/2 to 3/4 full with clean water or liquid fertilizer and agitate. Prior to mixing PENDULUM AquaCap or PENDULUM AquaCap tank mixtures in liquid fertilizer, refer to appropriate label sections for recommended uses in liquid fertilizer, application instructions, and compatibility determinations.

# 2. PENDULUM AquaCap

When using **PENDULUM AquaCap** alone, add **PENDULUM AquaCap** to the partially filled tank while agitating and then fill the remainder of the tank with water or liquid fertilizer.

### 3. PENDULUM AquaCap Tank Mixes

Add the tank mixture ingredients in the order listed below prior to adding **PENDULUM AquaCap**:

- (a) Wettable Powder (WP) formulations make a slurry of the WP in water (1:2 ratio). Add the slurry slowly into the partially filled tank while agitating.
- (b) Dry Flowable (DF)/Water Dispersible Granule (WDG) formulations add the granules to the partially filled tank while agitating. Make a slurry of the granules in water before adding to liquid fertilizer.
- (c) Flowable (F) formulations add the F formulation to the partially filled tank while agitating.
- (d)Add **PENDULUM AquaCap** to the partially filled tank while agitating.
- (e) Water Soluble Concentrate (WSC) formulations add the WSC formulation to the partially filled tank while agitating
- (f)Emulsifiable Concentrate (EC) formulations add the EC formulation to the partially filled tank while agitating. Fill the remainder of the tank with water or liquid fertilizer 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.

### 5. BACKPACK SPRAYER

Begin with a clean spray tank. Fill the spray tank one-half full with clean water and add the required amount of **Pendulum AquaCap** 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.

### 6. LIQUID FERTILIZERS

Prior to mixing, small quantities should always be tested using a simple jar test. Add the required amount of **Pendulum AquaCap** to a half filled spray tank while agitating; then add the fertilizer product. Complete filling spray tank to desired level.

# SPRAYING INSTRUCTIONS GROUND APPLICATIONS

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.

### **AERIAL APPLICATIONS**

Uniformly apply in 5 or more gallons of water per acre. Exercise caution to minimize drift. **DO NOT** apply during periods of gusty winds or when wind conditions favor drifting. Spray drift can cause injury to sensitive crops. It is recommended that a flagman or an automatic mechanical flagging unit on the aircraft be used to avoid overlapping and possible crop injury.

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment- and weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions. The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops:

- 1. The distance of the outermost nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
- 2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they should be observed. The applicator should be familiar with and take into account the information covered in the Aerial Drift Reduction Advisory Information presented below.

### **INFORMATION ON DROPLET SIZE:**

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see WIND, TEMPERATURE AND HUMIDITY, and TEMPERATURE INVERSIONS).

### **CONTROLLING DROPLET SIZE**

- Volume Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- Pressure DO NOT exceed the nozzle manufacturer's recommended pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- Number of Nozzles Use the minimum number of nozzles that provide uniform coverage.
- Nozzle Orientation Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is recommended practice. Significant deflection from the horizontal will reduce droplet size and increase drift potential.

 Nozzle Type - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using lowdrift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

#### **BOOM LENGTH**

For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.

### **APPLICATION HEIGHT**

Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

### **SWATH ADJUSTMENT**

When applications are made with a crosswind, the swath will be displaced downward. Therefore, on the upwind and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase with increasing drift potential (higher wind, smaller droplets, etc.).

### WIND

Drift potential is lowest between wind speeds of 2-10 mph. However, many factors, including droplet size and equipment type, determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. **NOTE:** Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

### **TEMPERATURE AND HUMIDITY**

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

### **TEMPERATURE INVERSIONS**

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

### **SENSITIVE AREAS**

The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, or non-target crops) is minimal (e.g. when wind is blowing away from the sensitive areas).

Table 1.

RESIDENTIAL, GOLF COURSE, COMMERCIAL AND OTHER NON-RESIDENTIAL TURFGRASS USES Application Rates For Preemergence Weed Control

#### PENDULUM® AquaCap™ herbicide¹ **Turfgrass Species** Weeds fl. oz. pints Comments Product **Product COOL SEASON GRASSES** per acre per 1,000 sq.ft. Apply a repeat application of Bluegrass, Kentucky crabgrass **All Turf Uses:** 2.2 to 3.1 pints/Acre (0.86 to Fescue, fine foxtail 1.1 to 1.6 oz 3.1 to 4.2 pints Fescue, tall Poa annua 1.1 oz/1000 sq.ft.) after 5-8 Ryegrass, perennial barnyardgrass Initial application prior to weed weeks for extended control or fall panicum germination in spring. where heavy weed infestations oxalis are expected. prostrate spurge purslane knotweed eveningprimrose hop clover goosegrass **Residential and Sod Farm Turf** Apply a repeat application of 3.1 pints/Acre (1.1 oz/ 1000 Uses Only2: sq.ft.) if the lower rate was 1.1 to 1.6 oz 3.1 to 4.2 pints used initially or for extended goosegrass control after 5-8 Golf Course, Commercial and Other Non-Residential Turf weeks. **Uses Only:** 1.1 to 2.3 oz 3.1 to 6.3 pints Initial application prior to weed germination in spring. cudweed **All Turf Uses:** Apply in late summer or early Poa annua fall prior to weed germination. 1.1 to 1.6 oz 3.1 to 4.2 pints chickweed Apply a repeat application of lawn burweed 3.1 to 4.2 pints (1.1 to 1.6 oz/1,000 sq.ft.) 5-8 weeks for henbit corn speedwell extended Poa annua control. Bentarass or crabarass All Turf Uses Apply a repeat application of established Poa annua3 foxtail (Non-Greens and Tees): 2.2 to 3.1 pints/Acre (0.86 to (1/2 inch height or taller) Poa annua 1.1 oz/1000 sq.ft.) after 5-8 1.1 oz. 3.1 pints barnyardgrass weeks for extended control or fall panicum Initial application prior to weed where heavy weed infestations oxalis germination in spring. are expected. prostrate spurge purslane knotweed eveningprimrose hop clover goosegrass **All Turf Uses** Apply a repeat application of (Non-Greens and Tees): 3.1 pts/Acre (1.1 oz/ 1000 sq.ft.) for extended 3.1 pints goosegrass control after 5-8 Initial application prior to weed weeks. germination in spring. cudweed **All Turf Uses** Apply in late summer or early Poa annua (Non-Greens and Tees): fall prior to weed germination. chickweed

1.1 to 1.6 oz

lawn burweed henbit corn speedwell 3.1 to 4.2 pints

Table 1. (cont.)
RESIDENTIAL, GOLF COURSE, COMMERCIAL AND OTHER NON-RESIDENTIAL TURFGRASS USES
Application Rates For Preemergence Weed Control

PENDULUM® AquaCap™ herbicide¹				
Turfgrass Species	Weeds	fl. oz.	pints	Comments
WARM SEASON GRASSE	S	Product per 1,000 sq.ft.	Product per acre	
Bermudagrass foxtail Buffalograss Poa ann Centipedegrass barnyard Fescue, tall fall panid Paspalum, seashore oxalis St. Augustinegrass prostrati		Residential and Uses		Apply a repeat application of 2.2 to 3.1 pints/Acre (0.86 to
	<i>Poa annua</i> barnyardgrass	1.1 to 1.6 oz	3.1 to 4.2 pints	1.1 oz/1000 sq.ft.) after 5-8 weeks if necessary.
	fall panicum oxalis prostrate spurge	fall panicum oxalis  Golf Course, Commercial and Other Non-Residential Turf		
Zoysiagrass	purslane knotweed	1.1 to 2.3 oz	3.1 to 6.3 pints	
	eveningprimrose hop clover	Initial application prior germination in spring		
	goosegrass	All Turf Uses (Non-Greens and Tees):		An additional application of 3.1 pt/Acre (1.1 oz/1000
		1.1 oz.	3.1 pints	sq.ft.) may be made for
		Apply prior to weed spring.	germination in	extended goosegrass contro 8 weeks after the second application.
		Make a second application at 3.1 pints (1.1 oz/1000 sq.ft.) 5-8 weeks later.		
	cudweed Poa annua chickweed lawn burweed henbit corn speedwell	<b>All Turf</b> 1.1 to 1.6 oz	<b>Uses:</b> 3.1 to 4.2 pints	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.

<sup>&</sup>lt;sup>1</sup> **DO NOT** exceed a maximum of 4.2 pints (2.1 quarts) <u>per acre per application</u> for use on residential and sod farm turfgrass. **DO NOT** exceed a maximum rate of 6.3 pints (3.1 quarts) <u>per acre per application</u> for use on golf course turfgrass, commercial or other non-residential turfgrass.

The efficacy of **PENDULUM AquaCap** will be improved 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.

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** can be mixed with postemergence herbicides to control emerged weeds in non-residential turfgrasses. For annual grass control, applications can be made with DRIVE®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** 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.

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

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

- 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® AquaCap™ herbicide application.
- Delay sprigging turfgrass for five (5) months after application.

# LANDSCAPE AND GROUNDS MAINTENANCE

**Pendulum AquaCap** 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, and around statuary or monuments, 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** 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. Application 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 NON-CROPLAND AREAS

Pendulum AquaCap 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 may be used for hardwood and conifer regeneration on conservation reserve program land. 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 **Instructions and Restrictions in Landscape and Ornamental Plantings** prior to making an application.

For postemergence control of weeds, tank-mix combinations of **Pendulum AquaCap** plus VANTAGE®1, Roundup®2, Finale®4, 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** 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 AquaCap** plus diuron or simazine combinations will broaden weed control spectrum, however, use of combinations may restrict **Pendulum AquaCap** 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** 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** prior to, during or after bulb emergence. If weeds have already germinated add a labeled postemergence herbicide to control emerged weeds.

### **WILDFLOWERS**

Pendulum AquaCap 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 AquaCap at 4.2 pints (2.1 quarts) per acre. Pendulum AquaCap may be applied to established perennial wildflowers before emergence of weeds or wildflowers. For wildflowers being established from seed, apply Pendulum AquaCap 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** 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** may be applied for preemergence control of most annual grasses and certain broadleaf weeds on the following non-bearing crops:

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

### NON-CROPLAND 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.

# **INDUSTRIAL (UNIMPROVED) TURF**

**Pendulum AquaCap** 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 or lots.

Apply before weeds germinate. A postemergence herbicide such as 2,4-D, DRIVE®1, VANTAGE®1, 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 may be tank mixed with ARSENAL®1, SAHARA®1, PLATEAU®1, VANTAGE®1, Roundup® PRO2, Karmex®3, Finale®4, Oust®3, diuron, glyphosate or other products to provide bare ground, or total vegetation control. Pendulum AquaCap 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** 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 PLANTATIONS,
AND OTHER NONCROP AREAS\*

For preemergence control of the weed species listed, apply **Pendulum AquaCap** at the following rates:

Length of Control	PENDULUM AQUACAP	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	3.2 oz.

<sup>\*</sup>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>	DO NOT apply to newly-transplanted ornamentals until plants have been watered and soil has been thoroughly packed and settled around roots.
	2. Apply as a directed or over-the-top spray.
	3. It is recommended to use the lowest labeled rate when making applications to annuals. Repeat applications can be made for extended landscape weed control.
Ornamental Bulbs <sup>2</sup>	Pendulum AquaCap may be applied to bulb species listed on the label
	<ol><li>Apply prior to, during or after bulb emergence, but not during bloom.</li></ol>
Wildflowers <sup>2</sup>	Pendulum AquaCap may be applied in plantings of wildflowers listed on the label.     Refer to specific instructions for rate and plant tolerance.
	<ol> <li>For wildflowers being established from seed, apply at 4 weeks after wildflowers have germinated, but prior to weed seed germination.</li> </ol>

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

### **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** 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** 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** treatment may be followed by any registered herbicide to control weeds not listed on the **Pendulum AquaCap** label.

The efficacy of **Pendulum AquaCap** 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** is not activated by rainfall or irrigation within 30 days.

 $<sup>^2</sup>$  **DO NOT** treat plants grown for food or feed. **DO NOT** use treated plants for food or feed.

<sup>&</sup>lt;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.

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

### **BROADLEAF WEEDS CONTROLLED**

Common Name	Scientific Name
Burweed, Lawn	Soliva pterosperma
Carpetweed	Mollugo verticillata
Chickweed, Common	Stellaria media
Chickweed, Mouseear	Cerastium vulgatum
Clover, Hop	Trifolium procumbens
Cudweed	Gnaphalium spp.
Eveningprimrose	Oenothera biennis
Fiddleneck	Amsinckia intermedia
Filaree	Erodium spp.
Henbit	Lamium amplexicaule
Knotweed, prostrate	Polygonum aviculare
Kochia	Kochia scoparia
Lambsquarters	Chenopodium album
Pigweed	Amaranthus spp.
Puncturevine	Tribulus terrestris
Purslane	Portulaca oleracea
Pusley, Florida	Richardia scabra

Common Name	Scientific Name
Rocket, London	Sisymbrium irio
Shepherdspurse	Capsella bursa-pastoris
Smartweed, Pennsylvania	Polygonum pensylvanicum
Speedwell, Corn	Veronica arvensis
Spurge, Annual	Euphorbia spp.
Spurge, Prostrate	Euphorbia humistrata
Woodsorrel, Yellow	Oxalis stricta
Velvetleaf (Buttonweed)	Abutilon theophrasti

# COMMERCIAL ORNAMENTAL PRODUCTION

### **GENERAL INFORMATION**

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

**Pendulum AquaCap** 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**. 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** will not control established weeds. Therefore, areas to be treated should be free of established weeds at the time of treatment, or **Pendulum AquaCap** 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** 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** or **Pendulum AquaCap** 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**.

### **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

Site	Application Instructions and Restrictions
Newly- Transplanted Field-Grown Nursery Stock <sup>2, 3</sup>	<ol> <li>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>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™ herbicide could come into contact with the roots.</li> <li>DO NOT apply during bud swell, bud break or at time of first flush of new growth.</li> </ol>
	Direct sprays away from graphed or budded tissue on transplants at all times.
Newly- Transplanted Container- Grown Nursery Stock <sup>2,3</sup>	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.  2. For container grown ornamentals, delay first application of the product to bareroot liners for two (2) weeks after transplanting.  3. DO NOT apply during bud swell, bud break or at time of first flush of new growth.  4. Direct sprays away from graphed or budded
Established Container, or Field-Grown Nursery Stock <sup>2, 3</sup>	<ol> <li>tissue on transplants at all times.</li> <li>DO NOT apply during bud swell, bud break or at time of first flush of new growth.</li> <li>Apply as a directed or over-the-top spray.</li> <li>If newly budded or graphed rootstock, make an application using a shielded sprayer.</li> <li>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> <li>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.	<b>DO NOT</b> APPLY in greenhouses, shadehouses or other enclosed structures.

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

Refer to Table 3. Application Rates For Weed Control In Production Ornamentals.

<sup>&</sup>lt;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.

 $<sup>^{\</sup>rm 3}\,\text{DO}\,\,\text{NOT}$  treat plants grown for food or feed. DO NOT use treated plants for food or feed.

#### ORNAMENTAL TANK MIXES

Emerged weeds in ornamentals can be controlled using tank mixes containing VANTAGE<sup>®1</sup>, Roundup<sup>®2</sup>, Finale<sup>®4</sup>, Ornamec<sup>®5</sup>, Gallery<sup>®7</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** 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 AguaCap** 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 AguaCap** plus diuron or simazine combinations will broaden weed control spectrum; however, use of combinations may restrict **Pendulum AquaCap** 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 IN ORNAMENTAL PRODUCTION

**Pendulum AquaCap** 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, and windbreaks and shelterbelts. Pendulum AquaCap may be tank mixed with VANTAGE, Roundup PRO, Karmex®3, Finale®4, 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** 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	3.2 oz.

<sup>\*</sup> 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** 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** 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** treatment may be followed by any registered herbicide to control weeds not listed on the **Pendulum AquaCap** label.

The efficacy of **Pendulum AquaCap** 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** is not activated by rainfall or irrigation within 30 days.

The following grass and broadleaf weeds are controlled by preemergence treatments of **Pendulum AquaCap** at the above-recommended rates:

### **GRASSES CONTROLLED**

Common Name	Scientific Name
Barnyardgrass	Echinochloa crus-galli
Bluegrass, Annual	Poa annua
Crabgrass	Digitaria spp.
Crowfootgrass	Dactyloctenium aegyptium
Foxtail, Giant	Setaria faberi
Foxtail, Green	Setaria viridis
Foxtail, Yellow	Setaria glauca
Goosegrass	Eleusine indica
Itchgrass	Rottboellia exaltata

# **GRASSES CONTROLLED** (cont.)

Common Name	Scientific Name
Johnsongrass (from seed)	Sorghum halepense
Junglerice	Echinochloa colona
Lovegrass (from seed)	Eragrostis spp.
Panicum, Browntop	Panicum fasciculatum
Panicum, Fall	Panicum dichotomiflorum
Panicum, Texas	Panicum texanum
Sandbur, Field	Cenchrus incertus
Signalgrass	Brachiaria platyphylla
Sprangletop, Mexican	Leptochloa uninervia
Sprangletop, Red	Leptochloa filiformis
Witchgrass	Panicum capillare
Woolly Cupgrass	Eriochloa villosa

### **BROADLEAF WEEDS CONTROLLED**

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

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

TREES (cont.)	0 1 110 11
Common Name	Scientific Name
Gum, Sour	Nyssa sylvatica
Haw, Black	Viburnum prunifolium
Hawthorn	Crataegus spp.
Hemlock, Canada	Tsuga canadensis
Hemlock, Eastern	Tsuga canadensis
Holly, American	llex opaca
Honeylocust	Gleditsia triacanthos
Lilac, Common	Syringa vulgaris
Lilac, Japanese Tree	Syringa reticulata
Linden	Tilia spp.
Magnolia, Saucer	Magnolia soulangiana
Magnolia, Southern	Magnolia grandiflora
Magnolia, Star	Magnolia stellata
Maidenhair Tree	Ginkgo biloba
Maple, Norway	Acer platanoides
Maple, Japanese	Acer palmatum
Maple, Red	Acer rubrum
Maple, Sugar	Acer saccharum
Nannyberry, Rusty	Viburnum rufidulum
Oak, Chinquapin	Quercus muehlenbergii
Oak, Live	Quercus virginiana
Oak, Pin	Quercus palustris
Oak, Red	Quercus rubra
Oak, Swamp Chestnut	Quercus michauxii
Oak, Water	Quercus nigra
Oak, White	Quercus alba
Oak, Willow	Quercus phellos
Olive	Olea europaea
Palm, Date	Phoenix spp.
Palm, Fan	Washingtonia spp.
Palm, Pindo	Butia spp.
Palm, Washington	Washingtonia spp.
Peach	Prunus persica
Pear, Bradford	Pyrus calleryana 'Bradford'
Pecan	Carya illinoensis
Pine, Austrian	Pinus nigra
Pine, Italian Stone	Pinus pinea
Pine, Loblolly	Pinus taeda
Pine, Monterey	Pinus radiata
Pine, Red	Pinus resinosa
Pine, Scotch	Pinus sylvestris
Pine, Virginia	Pinus virginiana
	Pinus virginiana  Pinus strobus
Plum Purple Leaf	
Plum, Purple Leaf	Prunus cerasifera
Poplar, Black	Populus nigra
Redcedar, Eastern	Juniperus virginiana

TREES (cont.) Common Name	Scientific Name
Redcedar, Western	Thuja plicata
Red Ironbark	Eucalyptus sideroxylon 'Rosea'
Redwood, Dawn	Metasequoia glyptostroboides
Sequoia, Giant	Sequoiadendron giganteum
Serviceberry	Amelanchier laevis
Sourwood	Oxydendrum arboreum
Spruce, Colorado Blue	Picea pungens
Spruce, Dwarf Alberta	Picea glauca 'albertiana'
Spruce, Norway	Picea abies
Spruce, White	Picea glauca
Sweetgum	Liquidambar styraciflua
Sycamore	Platanus occidentalis
Trachycarpus	Trachycarpus spp.
Tulip tree	Liriodendron tulipifera
Walnut, Black	Juglans nigra
Willow, Weeping	Salix babylonica
Yellowwood	Cladrastis lutea

# **SHRUBS**

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	

SHRUBS (cont.) Common Name	Scientific Name
Escallonia	Escallonia fradesii
Euonymus	Euonymus fortunei
Euonymus, Golden	Euonymus japonica
Euonymus, Winged	Euonymus alata
Firethorn	Pyracantha coccinea
Forsythia, Border	Forsythia intermedia
Fragrant Olive	Osmanthus fragrans
Fuschia, California	Zauschineria californica
Gardenia	Gardenia jasminoides
Hawthorne, Indian	Raphiolepis indica
Hibiscus	Hibiscus syriacus
Holly, Chinese	llex cornuta
Holly, Japanese	llex crenata
Holly, Fosters	llex attenuata 'Fosteri'
Holly, Savannah	llex attenuata
Holly, Yaupon	llex vomitoria
Honeysuckle, Bush	Diervilla Ionicera
Hopseed Bush	Dodonaea viscosa
Hopbush	Dodonaea viscosa
Hydrangea	Hydrangea macrophylla
Juniper	Juniperus sp.
Juniper, Chinese	Juniperus chinensis v. pfitzer
Juniper, Shore	Juniperus conferta
Juniper, Trailing	Juniperus horizontalis
Laurel, Cherry	Prunus laurocerasus
Laurel, Mountain	Kalmia latifolia
Laurel, Otto Luyken	Prunus laurocerasus
Laurel, Schipka	Prunus schipkanensis
Laurustinus	Viburnum tinus
Lavender, English	Lavandula angustifolia
Leucothoe	Leucothoe fontanesiana
Leucothoe, Coast	Leucothoe axillaris
Lilac, Cut-leaf	Syringa laciniata
Lily-of-the-Nile	Agapanthus africanus
Mahonia	Mahonia aquifolium
Mock Orange	Pittosporum tobira
Myrtle, Compact	Myrtus communis
Myrtle, Wax	Myrica cerifera
Nandina	Nandina domestica
Oleander	Nerium oleander
Oregon Grape	Mahonia aquifolium
Osmanthus	Osmanthus fragrans
Palm, European Fan	Chamaerops humilis
Palm, Mediterranean Fan	Chamaerops spp.
Phlox, Prickly	Leptodactylon californicum
Photinia, Fraser	Photinia x Fraseri
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SHRUBS (cont.) Common Name	Scientific Name
Pieris, Japanese	Pieris japonica
Pine, Mugo	Pinus mugo
Plum, Natal	Carissa grandiflora
Privet, California	Ligustrum ovalifolium
Privet, Glossy	Ligustrum lucidum
Privet, Variegated	Ligustrum sinensis
Privet, Waxleaf	Ligustrum japonicum
Pyracantha	Pyracantha coccinea
Quince, Flowering	Chaenomeles japonica
Ranger, Texas	Leucophyllum frutescens
Redroot	Ceanothus spp.
Rhododendron	Rhododendron spp.
Robira	Pittosporum tobira
Rose	Rosa spp.
Spice Plant	Illicium parviflorum
Spiraea	Spiraea vanhouttei
Spiraea, Anthony Waterer	Spiraea X bumalda
Spiraea, Japanese	Spiraea japonica
Sweet Bay	Laurus nobilis
Trumpet Bush	Tecoma stans
Verbena, Lemon	Aloysia triphylla
Viburnum	Viburnum suspensum
Vitex	Vitex spp.
Weigela	Weigela florida
Wild Lilac	Ceanothus spp.
Wisteria	Wisteria spp.
Xylosma	Xylosma congestum
Yellowbells	Tecoma stans
Yew *	Taxus media
Yew, Japanese*	Taxus cuspidata
Yew, Southern*	Podocarpus macrophyllus
Yucca, Adam's Needle	Yucca filamentosa
Yucca, Weeping	Yucca pendula

<sup>\*</sup> Applications of **Pendulum® AquaCap™ herbicide** should not be made during spring growth or injury to terminals may occur.

# **GROUND COVERS**

Common Name Scientific Name	
Ajuga	Ajuga reptans
Baby Sun Rose	Aptenia cordifolia
Beach Strawberry	Fragaria chiloensis
Capeweed	Arctotheca calendula
Cinquefoil, Spring	Potentilla verna
Coyotebrush, Dwarf	Baccharis pitularis
Daisy, Trailing African	Osteospermum fruticosum
Dymondia	Dymondia margaretae
Gazania	Gazania splendens
Iceplant, Large Leaf	Carpobrotus edulis

GROUND COVERS (cont.) Common Name	Scientific Name	PERENNIALS (cont.) Common Name
Ivy, English	Hedera helix	Carex
Ivy, Geranium	Pelargonium peltatum	Chincherinchee
Jasmine, Asiatic	Trachelospermum asiaticum	Clover, Crimson <sup>†</sup>
Jasmine, Primrose	Jasminum mesnyi	Columbine
Jessamine, Carolina	Gelsemium sempervirens	Columbine
Manzanita, Bearberry	Arctostaphylos uva-ursi	Coreopsis (tickseed) †
Miscanthus	Miscanthus spp.	Crinum Lily
Mondograss	Ophiopogon japonica	Crocus
Morning glory	Convolvulus spp.	Daffodil
Myoporum	Myoporum parviflolium	Daylily
Pachysandra	Pachysandra terminalis	Fairy Duster
Potentilla	Potentilla fruticosa	Fern, Asparagus
Red Apple	Aptenia cordifolia	Fern, Boston
Rosemary	Rosemarinus officinalis	Fern, Hay-scented
Rose-Of-Sharon	Hypericum calycinum	Fern, Leatherleaf*
Sand Strawberry	Fragaria chiloensis	Fortnight Lily
Sedum	Sedum spurium	Foxglove
St. Johnswort, Creeping	Hypericum calycinum	Freesia
Stonecrop	Sedum spurium	Gaillardia
Verbena, Peruvian	Verbena peruviana	Geum
Vervain	Verbena peruviana	Gladiolus
Vetch, Crown	Vicia sativa	Heather, Dwarf
Vinca	Vinca minor	Hosta
Wintercreeper	Euonymous fortunei	Indian Blanket†
		Iris, Japanese
PERENNIALS	<b>6</b> 1 10 11	Lantana, Weeping
Common Name Acacia	Scientific Name  Acacia redolens	Leopards Bane
		Lily
Asparagus Astar New York	Asparagus spp.	Liriope, Big Blue
Aster, New York	Aster novi-belgii	Liriope, Creeping
Aster, Stokes	Stokesia laevis	Liriope, Variegated
Astilibe (False Spirea) Avens	Astilibe spp.  Geum triflorum	Moonbeam
		Montbretia
Baby's Breath	Gypsophila elegans	Mugwort, Western
Baby's Breath Beard-Tongue	Gypsophila paniculata	Nightshade
	Penstemon spp.	Orchid, Peacock
Bellflower Willow	Campanula spp.	Oxeye Daisy <sup>†</sup>
Bellflower, Willow	Campanula persicifolia	
Bird of Paradise	Caesalpinia pulcherrima	Palm, Areca
Black-eyed Susan†	Rudbeckia hirta	Palm, Pygmy Date
Blanket Flower†	Gaillardia aristata	Palm, Washington
Blanket Flower†	Gaillardia x grandiflora	Peony, Chinese
Bleeding Heart	Dicentra spectabilis	Purple Coneflower†
Butterfly Weed	Asclepias tuberosa	Purple Gay-feather
California Poppy	Eschscholzia california	Purple Loosestrife
Calla Lily	Zantedeschia aethiopica	Rodgersia
Canna, Common Garden	Canna generalis 'Lucifer'	Rosemary

John Hame	Ooiciitiio italiic
Carex	Carex spp.
Chincherinchee	Ornithogalum thyrsoides
Clover, Crimson†	Trifolium incarnatum
Columbine	Aquilegia 'McKana Giant'
Columbine	Aquilegia x hybrida
Coreopsis (tickseed) †	Coreopsis lanceolata
Crinum Lily	Crinum spp.
Crocus	Crocus spp.
Daffodil	Narcissus spp.
Daylily	Hemerocallis spp.
Fairy Duster	Calliandra eriophylla
Fern, Asparagus	Asparagus officinalis
Fern, Boston	Nephrolepis exaltata
Fern, Hay-scented	Dennstaedtia punctilobula
Fern, Leatherleaf*	Rumohra adiantiformis
Fortnight Lily	Moraea spp.
Foxglove	Digitalis purpurea
Freesia	Freesia x hybrida
Gaillardia	Gaillardia pulchella
Geum	Geum spp.
Gladiolus	Gladiolus spp.
Heather, Dwarf	Calluna vulgaris
Hosta	Hosta spp.
Indian Blanket†	Gaillardia pulchella
Iris, Japanese	Iris kaemphera
Lantana, Weeping	Lantana montevidensis
Leopards Bane	Doronicum cordatum
Lily	Lillium spp.
Liriope, Big Blue	Liriope muscari
Liriope, Creeping	Liriope spicata
Liriope, Variegated	Liriope muscari
Moonbeam	Coreopsis verticillata
Montbretia	Crocosmia crocosmiiflora
Mugwort, Western	Artemesia ludoviciana
Nightshade	Solanum spp.
Orchid, Peacock	Acidanthera bicolor
Oxeye Daisy <sup>†</sup>	Chrysanthemum leucanthemum
Palm, Areca	Chysalidocarpus lutescens
Palm, Pygmy Date	Phoenix roebelence
Palm, Washington	Washington robusta
Peony, Chinese	Paeonia lactiflora
Purple Coneflower†	Echinacea purpurea
Purple Gay-feather	Liatris pycnostachys
Purple Loosestrife	Lythrum virgatum
Rodgersia	Rodgersia henricie
Rosemary	Rosmarinus officinalis

**Scientific Name** 

PERENNIALS (cont.) Common Name	Scientific Name
Sedge	Carex spp.
Shasta Daisy†	Chrysanthemum x superbum
Statice	Limonium latifolia
Statice, German	Goniolimon tartaricum
Sweet Flag	Acorus calamus
Tickseed <sup>†</sup>	Coreopsis lanceolata
Texas Bluebonnet	Lupinus texenis
Tulip	Tulipa spp.
Wonder Flower	Ornithogalum thyrsoides
Yarrow <sup>†</sup>	Achillea millefolium
Zephyr Lily	Zephyranthes spp.

<sup>\*</sup> Applications of **Pendulum® AquaCap<sup>TM</sup> herbicide** to immature ferns (during periods of new growth of fronds) may result in some injury.

### **ORNAMENTAL GRASSES**

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

# **BEDDING PLANTS**

Common Name	Scientific Name	
Ageratum	Ageratum houstonianum	
Alyssum*	Alyssum saxatile	
Anemone, Poppy-flowered	Anemone coronaria	
Artemesia	Artemesia spp.	
Balloonflower	Platycodon grandiflorum	
Begonia*	Begonia spp.	
Cabbage, Ornamental	Brassica olereacea	
Caladium	Caladium spp.	
Cast-Iron Plant	Aspidistra elatior	
China Aster*	Callistephus chinensis	
Crocosmia, Montebretia	Crocosmia x crocosmiiflora	
Dahlia*	Dahlia spp.	
Dianthus	Dianthus barbatus	
Dusty Miller	Senecio cineraria	
Gayfeather	Liatris spp.	
Gazania, Treasure Flower	Gazania rigens	
Gazania, Trailing	Gazania rigens leucolaena	

# **BEDDING PLANTS** (cont.)

Common Name	Scientific Name
Gloxinia	Gloxinia simningia
Kale, Ornamental	Brassica napus
Marigold, African	Tagetes erecta
Moss Rose*	Portulaca grandiflora
Mum, Garden	Chrysanthemum spp.
Periwinkle*	Vinca major
Periwinkle, Rose	Catharanthus roseus
Petunia*	Petunia spp.
Plumosa Cockscomb	Celosia cristata
Portulaca*	Portulaca grandiflora
Salvia*	Salvia splendens
Snapdragon	Antirrhinum majus
Statice*	Limonium spp.
Sweet William	Dianthus barbatus
Vinca*	Vinca major

<sup>\*</sup>Application of **Pendulum AquaCap** 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.

<sup>†</sup> These plants have shown tolerance to **Pendulum AquaCap** applications of 4.2 pints (2.1 quarts) in wildflower plantings established from seed.

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