



## OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

WASHINGTON, D.C. 20460

February 4, 2026

Christa Ellers-Kirk  
Federal Registration Mgr.  
BASF Corporation  
26 Davis Drive  
Research Triangle Park, NC 27709-3528

Subject: Label Amendment - Registration Review Mitigation for Pendimethalin  
Product Name: PENDULUM 3.3 EC HERBICIDE  
EPA Registration Number: 241-341  
Case Number: 480470  
Application Dates: December 15, 2021

Dear Christa Ellers-Kirk:

The Agency, in accordance with the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, has completed reviewing all the information submitted with your application to support the Registration Review of the above referenced product in connection with the Pendimethalin Interim Decision, and has concluded that your submission is acceptable. The label referred to above, submitted in connection with registration under FIFRA, as amended, is acceptable.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide, Fungicide, and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance Assurance.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling and must be used at your next label printing. You must submit one copy of the final printed labeling before you release the product for

shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 12 months from the date of this letter. After 12 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

If you have any questions about this letter, please contact Caleb Carr by phone at 202-566-0636, or via email at [carr.caleb@epa.gov](mailto:carr.caleb@epa.gov).

Sincerely,



Julie Javier, Team Leader  
Risk Mitigation and Implementation Branch 4  
Pesticide Re-Evaluation Division  
Office of Pesticide Programs

ENCLOSURE: Stamped label

# Pendulum<sup>®</sup>

## 3.3 EC Herbicide

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

**Active Ingredient:**

pendimethalin, N-(1-ethylpropyl)-3,4-dimethyl-2, 6-dinitrobenzenamine . . . . . 37.4%

**Other Ingredients\*:** . . . . . 62.6%

**Total:** . . . . . 100.0%

(1 gallon contains 3.3 lbs of pendimethalin)

\* Contains petroleum distillates

EPA Reg. No. 241-341

EPA Est. No.

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

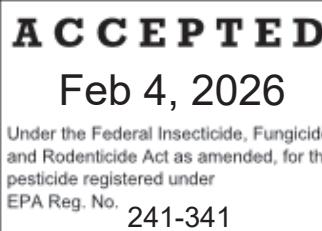
Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.  
(If you do not understand the label, find someone to explain it to you in detail.)

See inside for additional **First Aid, Precautionary Statements, Directions For Use, Conditions of Sale and Warranty**, and state-specific crop and/or use site restrictions.

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

**Net Contents:**

BASF Agricultural Solutions US LLC  
2 TW Alexander Drive  
Research Triangle Park, NC 27713



## FIRST AID

<b>If in eyes</b>	<ul style="list-style-type: none"> <li>Hold eyes open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after first 5 minutes, then continue rinsing eyes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If swallowed</b>	<ul style="list-style-type: none"> <li>Immediately call a poison control center or doctor.</li> <li><b>DO NOT</b> induce vomiting unless told to do so by a poison control center or doctor.</li> <li><b>DO NOT GIVE ANY LIQUID TO THE PERSON.</b></li> <li><b>DO NOT</b> give anything by mouth to an unconscious person.</li> </ul>
<b>If on skin or clothing</b>	<ul style="list-style-type: none"> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If inhaled</b>	<ul style="list-style-type: none"> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.</li> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>

## HOT LINE NUMBER

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

## NOTE TO PHYSICIAN

This product may pose an aspiration pneumonia hazard. Contains petroleum distillates.

### Precautionary Statements

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

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

#### Personal Protective Equipment (PPE)

##### Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of barrier laminate, butyl rubber  $\geq$  14 mils, nitrile rubber  $\geq$  14 mils, or viton  $\geq$  14 mils
- Shoes plus socks

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exists, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. **DO NOT** reuse them.

#### 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.

### Nontarget Organism Advisory

This product is toxic to plants and may adversely impact the forage and habitat of nontarget organisms, including pollinators, in areas adjacent to the treated site. Protect the forage and habitat of nontarget organisms by following label directions intended to minimize spray drift.

### Endangered Species Protection

It is a Federal offense to use any pesticide in a manner that results in an unauthorized "take" (e.g., kill or otherwise harm) of an endangered species, and certain threatened species, under the Endangered Species Act section 9. When using this product, you must follow the measures contained in the Endangered Species Protection Bulletin for the area in which you are applying the product. You must obtain a Bulletin no earlier than six months before using this product. To obtain Bulletins, consult

<http://www.epa.gov/espp/>, call 1-844-447-3813, or email ESPP@epa.gov. You must use the Bulletin valid for the month in which you will apply the product.

If endangered plant species occur in proximity to the application site, the following mitigation measures are required:

- If applied by ground, leave an untreated buffer zone of 200 ft. The product must be applied using a low boom (20 inches above the ground) and medium or coarser droplet size (ASAE S572.3).

## 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.

**DO NOT** apply by aerial methods.

**DO NOT** apply **Pendulum® 3.3 EC herbicide** in greenhouses, shadehouses or other enclosed structures.

BASF Agricultural Solutions US LLC (hereafter "BASF") 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 any requirements specific to your state or tribe, consult the agency responsible for pesticide regulation.

## Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

**DO NOT** enter or allow worker entry into treated areas during the restricted-entry interval (REI) of **24 hours**.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls
- Chemical-resistant gloves made of barrier laminate, butyl rubber  $\geq$  14 mils, nitrile rubber  $\geq$  14 mils, or viton  $\geq$  14 mils
- Shoes plus socks

## Non-Agricultural Use Requirements

The requirements in this box apply to uses of this product that are **NOT** within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

**DO NOT** enter or allow others to enter the treated area until sprays have dried.

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

## Storage and Disposal

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

### PESTICIDE STORAGE: DO NOT STORE BELOW

**40° F.** Extended storage at temperatures below 40° F can result in the formation of crystals on the bottom of the container. If crystallization does occur, store the container on its side at room temperature (70° F) and rock occasionally until crystals redissolve.

### 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:

**Nonrefillable Container. DO NOT reuse or refill this container.** Triple rinse or pressure rinse container (or equivalent) promptly after emptying; then offer for recycling, if available, or reconditioning, if appropriate, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

### Triple rinse containers small enough to shake

**(capacity ≤ 5 gallons) as follows:** Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank, or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

### Triple rinse containers too large to shake

**(capacity > 5 gallons) as follows:** Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank, or store rinsate for later use or disposal. Repeat this procedure two more times.

**Pressure rinse as follows:** Empty the remaining contents into application equipment or mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank, or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Observe all cautions and limitations on this label and the labels of products used in combination with

**Pendulum® 3.3 EC herbicide.** The use of

**Pendulum 3.3 EC** not consistent with this label can result in injury to crops, animals, or persons. Keep containers closed to avoid spills and contamination.

## In Case of Emergency

In case of large-scale spill of this product, call:

- CHEMREC 1-800-424-9300
- BASF 1-800-832-HELP (4357)

In case of medical emergency regarding this product, call:

- Your local doctor for immediate treatment
- Your local poison control center (hospital)
- BASF 1-800-832-HELP (4357)

## Steps to take if material is released or spilled:

- Dike and contain the spill with inert material (sand, earth, etc.) and transfer liquid and solid diking material to separate containers for disposal.
- Remove contaminated clothing and wash affected skin areas with soap and water.
- Wash clothing before reuse.
- Keep the spill out of all sewers and open bodies of water.

## Product Information

**Pendulum 3.3 EC** provides preemergence control of most annual grasses and certain broadleaf weeds as they germinate in any turfgrass site (lawns, sod, turf areas). Examples of such sites include but are not limited to: grounds or lawns around residential and commercial establishments, multifamily dwellings, military and other institutions, parks, airports, roadsides, schools, picnic grounds, athletic fields, houses of worship, cemeteries, golf courses, prairiegrass areas, and sod farms.

**Pendulum 3.3 EC** can also be used in and around field-, liner-, and container-grown ornamental nurseries; established landscape ornamentals and ornamental gardens; listed groundcovers; nonbearing fruit and nut trees; conifer and hardwood seedling nurseries; and for tree plantation site preparation and maintenance.

In addition, **Pendulum 3.3 EC** can be applied for general grounds maintenance around areas such as parking lots, driveways and roadsides, alleyways, bike and jogging paths, vacant lots, buildings, stone gardens and gravel yards, markers and fence lines, mulch beds and other similar areas. It may be used under asphalt or concrete treatments as part of a site preparation program.

**Pendulum 3.3 EC** 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; and other similar areas where weed control is desired.

**Pendulum 3.3 EC** controls weeds as they germinate but will not control established weeds. Therefore, areas to be treated should be free of established weeds. For the control of established weeds, **Pendulum 3.3 EC** may be used in conjunction with herbicides registered for postemergence use. Consult the labels of those herbicides for use rates, timings, and precautions or restrictions.

Unusually cold, excessively wet, or hot and dry conditions that delay germination or extend germination over a long period of time can reduce weed control.

The efficacy of **Pendulum 3.3 EC** will improve if the application is followed by one-half inch of rainfall or its equivalent in sprinkler irrigation. If **Pendulum 3.3 EC** 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® 3.3 EC herbicide** or **Pendulum 3.3 EC** tank mix combinations will not cause crop injury. Overapplication 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 3.3 EC**.

**Pendulum 3.3 EC** may cause temporary discoloration of sprayed surfaces. Rinse immediately to avoid staining. Spray colorants or dyes can be added to alter the color of the spray solution to match the treated surfaces.

## Mode of Action

Pendimethalin, the active ingredient in **Pendulum 3.3 EC**, is a **Group 3 (WSSA)/Group K<sub>1</sub> (HRAC)** herbicide belonging to the dinitroaniline chemistry class.

**Pendulum 3.3 EC** is a meristematic inhibitor that interferes with meristematic plant cell division or mitosis inhibiting germinating seedling growth.

## Herbicide Resistance Management

**Pendulum 3.3 EC** is a **Group 3** herbicide. Any weed population may contain or develop plants naturally resistant to **Pendulum 3.3 EC** and other **Group 3** herbicides. Weed species with resistance to **Group 3** may eventually dominate the weed population if **Group 3** herbicides are used repeatedly in the same field or in successive years as the primary method of control for targeted species. This may result in partial or total loss of control of those species by **Pendulum 3.3 EC** or other **Group 3** herbicides.

### To delay herbicide resistance consider:

- Avoiding the consecutive use of **Pendulum 3.3 EC** or other target site-of-action **Group 3** herbicides that have a similar target site of action on the same weed species.
  - Using tank mixes or premixes with herbicides from different target-site-of-action groups as long as the involved products are all registered for the same use, have different sites of action, and are both effective at the tank mix or prepack rate on the weed(s) of concern.
  - Basing herbicide use on a comprehensive IPM (Integrated Pest Management) program including cultural and mechanical methods.
  - Monitoring treated weed populations for loss of field efficacy, and control of escapes with effective alternative herbicides or mechanical methods.
  - Identify weeds present in the field through scouting and field history and understand their biology
  - The weed-control program needs to consider all of the weeds present.
  - Scout fields prior to application to identify the weed species present and their growth stage to determine if the intended application will be effective.
  - Scout fields after application to verify the treatment was effective.

- Suspected herbicide-resistance weeds may be identified by these indicators:

1. Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds;
2. A spreading patch of non-controlled plants of a particular weed species; and
3. Surviving plants mixed with controlled individuals of the same species.

- If resistance is suspected, treat weed escapes with an herbicide with a different MOA and/or use nonchemical methods to remove escapes, as practical, with the goal of preventing further seed production.
- Report any incidence of non-performance of this product against a particular weed species to your local BASF representative.
- Contacting your local extension specialist, certified crop advisors, and/or manufacturer for herbicide resistance management and/or integrated weed management directions for specific crops and resistant weed biotypes.

## MIXING INSTRUCTIONS

Respective sections of this leaflet define recommended **Pendulum 3.3 EC** or **Pendulum 3.3 EC**-registered tank mix treatments.

### Ground Driven Sprayer:

1. Fill tank one-half to three-quarters full with clean water.
2. Add **Pendulum 3.3 EC** to the partially filled tank while agitating and then fill the remainder of the tank with water.
3. **MAINTAIN CONTINUOUS AGITATION WHILE ADDING Pendulum 3.3 EC AND UNTIL SPRAYING IS COMPLETED.** If the spray mixture is allowed to settle for any period of time, thorough agitation is essential before spraying is resumed. Continue agitation while spraying.
4. If **Pendulum 3.3 EC** is to be used in tank mixtures with other registered herbicides, follow directions on the labels of those products which recommend tank mixing.

**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 3.3 EC** 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 3.3 EC** to half-filled spray tank while agitating then add the fertilizer product. Complete filling spray tank to desired level.

**Dry Bulk Fertilizers:** **Pendulum 3.3 EC** may be impregnated on dry bulk fertilizers. When applied as directed, **Pendulum 3.3 EC**/dry bulk fertilizer mixtures provide weed control equal to that provided by the same rates of **Pendulum 3.3 EC** applied in water.

## SPRAYING INSTRUCTIONS

Apply with properly calibrated ground equipment in sufficient water per acre to provide uniform spray distribution (at least 40 gallons of water per acre). Low-pressure (e.g. 20 to 40 psi) sprayers are recommended. Maintain continuous agitation during spraying with good mechanical or bypass agitation. Check sprayer routinely to determine proper calibration. Avoid overlaps that will increase rates above those recommended.

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

The efficacy of **Pendulum® 3.3 EC herbicide** will be improved if the application is followed by one-half inch of rainfall or its equivalent in sprinkler irrigation. If

**Pendulum 3.3 EC** is not activated by rainfall or irrigation within 30 days, erratic weed control may result.

To prevent establishment of weeds along the edges of lawns, 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, rinse immediately to avoid staining.

## Mandatory Spray Drift Management

### Ground Boom Applications

- Applicators must only apply with the nozzle height recommended by the manufacturer, but no more than 3 ft above the ground or crop canopy.
- Applicators are required to use a medium or coarser droplet size (ASAE S572).
- **DO NOT** apply when wind speeds exceed 15 mph at the application site.
- **DO NOT** apply during temperature inversions.

### Boomless Ground Applications

- Applicators are required to use a medium or coarser droplet size (ASAE S572) for all applications.
- **DO NOT** apply when wind speeds exceed 15 mph at the application site.
- **DO NOT** apply during temperature inversions.

## Spray Drift Advisories

The applicator is responsible for avoiding off-site spray drift. Be aware of nearby nontarget sites and environmental conditions.

## Importance of Droplet Size

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

## Controlling Droplet Size: Ground Boom

- **Volume** - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- **Pressure** - Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- **Spray Nozzle** - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

### Boom Height - Ground Boom

For ground equipment, the boom should remain level with the crop and have minimal bounce.

### Boom-less Ground Applications

Set nozzles at the lowest effective height will help to reduce the potential for spray drift.

### Handheld Technology Applications

Take precautions to minimize spray drift.

### Shielded Sprayers

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

### Temperature and Humidity

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

### Temperature Inversions

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or 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. Avoid applications during temperature inversions.

### Wind

Drift potential generally increases with wind speed. **AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.**

Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

### Sensitive Areas

This 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 nontarget crops or plants) is minimal (e.g. when wind is blowing away from the sensitive areas).

## **TURFGRASS TANK MIXES**

**Pendulum® 3.3 EC herbicide** can be mixed with post-emergence herbicides to control emerged weeds in turfgrasses. For annual grass control, applications can be made with **Acclaim® Extra** or MSMA to control emerged weeds. Broadleaf weeds can be controlled using **Trimec®**, 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 3.3 EC** and follow those that are most restrictive.

## **TURFGRASS PRECAUTIONS**

Use on well-established turfgrass with a dense and uniform stand. On newly planted areas, application should not be made until the turfgrass has filled in and has been mowed at least four times. On turf that has been thinned or damaged due to winter injury, excessive moisture, etc., allow for turf recovery prior to making an application. Applications made to overseeded warm-season turfgrasses may cause thinning or injury of the overseeded species.

**DO NOT** use on greens or injury may occur.

Delay reseeding or winter overseeding of treated turfgrass for at least three (3) months following the last **Pendulum 3.3 EC** application. Delay sprigging turfgrass for five (5) months after application.

## **INDUSTRIAL (UNIMPROVED) TURF**

Industrial, or unimproved, turf areas often have a different spectrum of weeds to be controlled than those found in fine turf, as described elsewhere in this leaflet.

**Pendulum 3.3 EC** will control annual grasses and broadleaf weeds mentioned in that section of this label as well as the following weeds that might germinate in established grasses in rights-of-way, roadsides, construction sites, parks, substations, lots, or similar areas:

Crowfootgrass, Itchgrass, Johnsongrass (from seed), Juncglerice, Lovegrass, Browntop panicum, Texas panicum, Field sandbur, Signalgrass, Mexican sprangletop, Red sprangletop, Witchgrass, Woolly cupgrass, Carpetweed, Fiddleneck, Filaree, Kochia, Lambsquarters, Pigweed, Puncturevine, Florida pusley, London rocket, Shepherdspurse, Pennsylvania smartweed, Annual spurge, and Velvetleaf.

Apply before weeds germinate. A postemergence herbicide, such as 2,4-D, MSMA, or similar products, may be tank mixed to control established weeds. Apply according to label instructions for the respective products and follow the most restrictive wording.

## TURFGRASSES

### APPLICATION RATES FOR WEED CONTROL<sup>1</sup>

Turfgrass Species	Weeds Controlled	Rates of Pendulum® 3.3 EC herbicide	Comments
<b>COOL SEASON GRASSES</b>			
Bluegrass, Kentucky Fescue, fine Fescue, tall Ryegrass, perennial	Barnyardgrass Crabgrass Evening primrose Fall panicum Foxtail Hop clover Knotweed Oxalis <i>Poa annua</i> Prostrate spurge Purslane	3.6 to 4.8 pts/acre or 1.3 to 1.8 oz/1000 sq ft.  Initial application prior to weed germination in spring.	Apply a repeat application of 2.5 to 3.6 pts/acre (1 to 1.3 oz/1000 sq ft) after 5 to 8 weeks for extended control or where heavy weed infestations are expected.
	Goosegrass	<b>Residential<sup>2</sup> Turf Uses Only:</b> 3.6 to 4.8 pts/acre or 1.3 to 1.8 oz/1000 sq ft.  Initial application prior to weed germination in spring.  <b>Commercial or Other Non-Residential Turf Uses:</b> 3.6 to 7.2 pts/acre or 1.3 to 2.6 oz/1000 sq ft.  Initial application prior to weed germination in spring.	Apply a repeat application of 3.6 pts/acre (1.3 oz/1000 sq ft) if the lower rate was used initially for extended goosegrass control.
	Chickweed Corn speedwell Cudweed Henbit Lawn burweed <i>Poa annua</i>	3.6 to 4.8 pts/acre or 1.3 to 1.8 oz/1000 sq ft.	Apply in late summer or early fall prior to weed germination.
<b>WARM SEASON GRASSES</b>			
Bahiagrass Bermudagrass Buffalograss Centipedegrass Fescue, tall <i>Paspalum</i> , seashore St. Augustinegrass Zoysiagrass	Barnyardgrass Crabgrass Evening primrose Fall panicum Foxtail Hop clover Knotweed Oxalis <i>Poa annua</i> Prostrate spurge Purslane	<b>Residential<sup>2</sup> Turf Uses Only:</b> 3.6 to 4.8 pts/acre or 1.3 to 1.8 oz/1000 sq ft.  Initial application prior to weed germination in spring.  <b>Commercial or Other Non-Residential Turf Uses:</b> 3.6 to 7.2 pts/acre or 1.3 to 2.6 oz/1000 sq ft.  Initial application prior to weed germination in spring.	Apply a repeat application of 2.5 to 3.6 pts/acre (1 to 1.3 oz/1000 sq ft) after 5 to 8 weeks if necessary.
	Goosegrass	3.6 pts/acre or 1.3 oz/1000 sq ft.  Apply prior to weed germination in spring.  Make a second application 6 to 8 weeks later.	An additional application of 3.6 pts/acre (1.3 oz/1000 sq ft) may be made for extended goosegrass control 8 weeks after the second application.
	Chickweed Corn speedwell Cudweed Henbit Lawn burweed <i>Poa annua</i>	3.6 to 4.8 pts/acre or 1.3 to 1.8 oz/1000 sq ft.	Apply in late summer or early fall prior to weed germination.

<sup>1</sup> **DO NOT** exceed a maximum of 4.8 pts/acre per application for use on residential turfgrass.

**DO NOT** exceed a maximum of 7.2 pts/acre per application for use on commercial or non-residential turfgrass.

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

The efficacy of **Pendulum 3.3 EC** will be improved if the application is followed by one-half inch of rainfall or its equivalent in sprinkler irrigation.

If **Pendulum 3.3 EC** is not activated by rainfall or irrigation within 30 days, erratic weed control may result.

To prevent establishment of weeds along the edges of lawns, 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, rinse immediately to avoid staining.

## ORNAMENTALS

### RECOMMENDED SPECIES

**Pendulum® 3.3 EC herbicide** sprays are safe around and over the top of the established plants listed below. However, not all varieties or strains of the plants listed have been tested. 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.

**DO NOT** apply **Pendulum 3.3 EC** in greenhouses, shadehouses or other enclosed structures.

Refer to **APPLICATION RATE TABLE** for rates.

### GROUND COVERS

Common Name	Scientific Name
Ajuga	<i>Ajuga reptans</i>
Capeweed	<i>Arctotheca calendula</i>
Cinquefoil, spring	<i>Potentilla verna</i>
Daisy, trailing African	<i>Osteospermum fruticosum</i>
Gazania	<i>Gazania splendens</i>
Iceplant, large leaf	<i>Carpobrotus edulis</i>
Ivy, English	<i>Hedera helix</i>
Ivy, Geranium	<i>Pelargonium peltatum</i>
Jasmine, Asiatic	<i>Trachelospermum asiaticum</i>
Jasmine, primrose	<i>Jasminum mesnyi</i>
Mondograss	<i>Ophiopogon japonica</i>
Myoporum	<i>Myoporum parvifolium</i>
Pachysandra	<i>Pachysandra terminalis</i>
Potentilla	<i>Potentilla fruticosa</i>
Rose-Of-Sharon	<i>Hypericum calycinum</i>
Wintercreeper	<i>Euonymous fortunei</i>

### PERENNIALS

Common Name	Scientific Name
Bleeding heart	<i>Dicentra spectabilis</i>
Calla lily	<i>Zantedeschia aethiopica</i>
Canna, common garden	<i>Canna generalis 'Lucifer'</i>
Chincherinchee	<i>Ornithogalum thyrsoides</i>
Crinum lily	<i>Crinum spp.</i>
Fern, asparagus	<i>Asparagus officinalis</i>
Fern, leatherleaf	<i>Rumohra adiantiformis</i>
Freesia	<i>Freesia x hybrida</i>
Heather, dwarf	<i>Calluna vulgaris</i>
Hosta	<i>Hosta spp.</i>
Lily	<i>Lilium spp.</i>
Liriope, creeping	<i>Liriope spicata</i>
Liriope, variegated	<i>Liriope muscari</i>

(continued)

## PERENNIALS

Common Name	Scientific Name
Montbretia	<i>Crocosmia crocosmiiflora</i>
Orchid, peacock	<i>Acidanthera bicolor</i>
Peony, Chinese	<i>Paeonia lactiflora</i>
Wisteria	<i>Wisteria spp.</i>
Zephyr lily	<i>Zephyranthes spp.</i>

### ORNAMENTAL GRASSES

Common Name	Scientific Name
Beach brass	<i>Ammophila breviligulata</i>
Fescue, blue	<i>Festuca ovina</i>
Fescue, sheep	<i>Festuca ovina</i>
Fountain grass	<i>Pennisetum setaceum</i>
Pampas grass	<i>Cortaderia selloana</i>
Reed canary grass	<i>Phalaris arundinacea</i>
Reed, giant	<i>Arundo spp.</i>
Ribbon grass	<i>Phalaris arundinacea</i>
Tufted hair grass	<i>Deschampsia caespitosa</i>

### TREES

Common Name	Scientific Name
Alder, European black	<i>Alnus glutinosa</i>
Apple	<i>Malus spp.</i>
Arborvitae, American	<i>Thuja occidentalis</i>
Arbutus	<i>Arbutus spp.</i>
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 spp.</i>
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 spp.</i>
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>

(continued)

TREES	
Common Name	Scientific Name
Dogwood, shrub	<i>Cornus</i> spp.
Dogwood, silky	<i>Cornus amomum</i>
Elm	<i>Ulmus japonica</i>
Fir, balsam	<i>Abies balsamea</i>
Fir, Douglas	<i>Pseudotsuga menziesii</i>
Fir, Fraser	<i>Abies fraseri</i>
Fir, white	<i>Abies concolor</i>
Franklinia	<i>Franklinia</i> spp.
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	<i>Ilex opaca</i>
Honeylocust	<i>Gleditsia triacanthos</i>
Lilac, common	<i>Syringa vulgaris</i>
Lilac, Japanese tree	<i>Syringa reticulata</i>
Linden	<i>Tilia</i> spp.
Magnolia, saucer	<i>Magnolia soulangiana</i>
Magnolia, Southern	<i>Magnolia grandiflora</i>
Magnolia, star	<i>Magnolia stellata</i>
Maidenhair tree	<i>Ginkgo biloba</i>
Maple, Japanese	<i>Acer palmatum</i>
Maple, Norway	<i>Acer platanoides</i>
Maple, red	<i>Acer rubrum</i>
Maple, sugar	<i>Acer saccharum</i>
Nannyberry, rusty	<i>Viburnum rufidulum</i>
Oak, Chinquapin	<i>Quercus muehlenbergii</i>
Oak, live	<i>Quercus virginiana</i>
Oak, pin	<i>Quercus palustris</i>
Oak, red	<i>Quercus rubra</i>
Oak, swamp chestnut	<i>Quercus michauxii</i>
Oak, water	<i>Quercus nigra</i>
Oak, white	<i>Quercus alba</i>
Oak, willow	<i>Quercus phellos</i>
Olive	<i>Olea europaea</i>
Palm, date	<i>Phoenix</i> spp.
Palm, fan	<i>Washingtonia</i> spp.
Palm, pindo	<i>Butia</i> spp.
Palm, Washington	<i>Washingtonia</i> spp.
Peach	<i>Prunus persica</i>
Pear, Bradford	<i>Pyrus calleryana</i> 'Bradford'
Pecan	<i>Carya illinoensis</i>
Pine, Austrian	<i>Pinus nigra</i>

(continued)

TREES	
Common Name	Scientific Name
Pine, Italian stone	<i>Pinus pinea</i>
Pine, loblolly	<i>Pinus taeda</i>
Pine, Monterey	<i>Pinus radiata</i>
Pine, red	<i>Pinus resinosa</i>
Pine, scotch	<i>Pinus sylvestris</i>
Pine, slash	<i>Pinus elliottii</i>
Pine, Virginia	<i>Pinus virginiana</i>
Pine, white	<i>Pinus strobus</i>
Plum, purple leaf	<i>Prunus cerasifera</i>
Poplar, black	<i>Populus nigra</i>
Redcedar, Eastern	<i>Juniperus virginiana</i>
Redcedar, Western	<i>Thuja plicata</i>
Red ironbark	<i>Eucalyptus sideroxylon</i> 'Rosea'
Redwood, dawn	<i>Metasequoia glyptostroboides</i>
Sequoia, giant	<i>Sequoia giganteum</i>
Serviceberry	<i>Amelanchier laevis</i>
Sourwood	<i>Oxydendrum arboreum</i>
Spruce, Colorado blue	<i>Picea pungens</i>
Spruce, dwarf Alberta	<i>Picea glauca</i> 'albertiana'
Spruce, Norway	<i>Picea abies</i>
Spruce, white	<i>Picea glauca</i>
Sweetgum	<i>Liquidambar styraciflua</i>
Sycamore	<i>Platanus occidentalis</i>
Trachycarpus	<i>Trachycarpus</i> spp.
Tulip Tree	<i>Liriodendron tulipifera</i>
Walnut, black	<i>Juglans nigra</i>
Willow, weeping	<i>Salix babylonica</i>
Yellowwood	<i>Cladrastis lutea</i>

### SHRUBS

Common Name	Scientific Name
Abelia, glossy	<i>Abelia grandiflora</i>
Aucuba, gold	<i>Aucuba japonica</i>
Azalea	<i>Rhododendron</i> spp.
Bamboo, heavenly	<i>Nandina domestica</i>
Barberry	<i>Berberis glaucocarpa</i>
Barberry, Japanese	<i>Berberis thunbergii</i>
Blue Indigo bush	<i>Dalea greggii</i>
Bottlebrush, lemon	<i>Callistemon citrinus</i>
Boxwood, common	<i>Buxus sempervirens</i>
Boxwood, Japanese	<i>Buxus microphylla</i>
Camellia	<i>Camellia japonica</i>
Cape Jasmine	<i>Gardenia jasminoides</i>
Cordyline	<i>Cordyline</i> spp.
Correa	<i>Correa</i> spp.
Cotoneaster	<i>Cotoneaster apiculatus</i>

(continued)

SHRUBS	
Common Name	Scientific Name
Cotoneaster, bearberry	<i>Cotoneaster dammeri</i>
Cotoneaster, rock	<i>Cotoneaster horizontalis</i>
Cypress, Italian	<i>Cupressus sempervirens</i>
Cypress, leyland	<i>Cupressocyparis leylandii</i>
Deutzia, slender	<i>Deutzia gracilis</i>
Dogwood, red twig	<i>Cornus sericea</i>
Elaeagnus	<i>Elaeagnus ebbingei</i>
Escallonia	<i>Escallonia fradesii</i>
Euonymus	<i>Euonymus fortunei</i>
Euonymus, golden	<i>Euonymus japonica</i>
Euonymus, winged	<i>Euonymus alata</i>
Firethorn	<i>Pyracantha coccinea</i>
Forsythia, border	<i>Forsythia intermedia</i>
Fragrant olive	<i>Osmanthus fragrans</i>
Fuschia, California	<i>Zauschneria californica</i>
Gardenia	<i>Gardenia jasminoides</i>
Hawthorne, Indian	<i>Raphiolepis indica</i>
Hibiscus	<i>Hibiscus syriacus</i>
Holly, Chinese	<i>Ilex cornuta</i>
Holly, Fosters	<i>Ilex attenuata 'Fosteri'</i>
Holly, Japanese	<i>Ilex crenata</i>
Holly, Savannah	<i>Ilex attenuata</i>
Holly, Yaupon	<i>Ilex vomitoria</i>
Honeysuckle, bush	<i>Diervilla lonicera</i>
Juniper	<i>Juniperus spp.</i>
Juniper, Chinese	<i>Juniperus chinensis v. pfitzer</i>
Juniper, shore	<i>Juniperus conferta</i>
Juniper, trailing	<i>Juniperus horizontalis</i>
Laurel, Cherry	<i>Prunus laurocerasus</i>
Laurel, mountain	<i>Kalmia latifolia</i>
Laurel, Otto Luyken	<i>Prunus laurocerasus</i>
Laurel, Schipka	<i>Prunus schipkanensis</i>
Laurustinus	<i>Viburnum tinus</i>
Lavender, English	<i>Lavandula angustifolia</i>
Leucothoe	<i>Leucothoe fontanesiana</i>
Leucothoe, coast	<i>Leucothoe axillaris</i>
Lilac, cut-leaf	<i>Syringa laciniata</i>
Lily-of-the-Nile	<i>Agapanthus africanus</i>
Mahonia	<i>Mahonia aquifolium</i>
Mock orange	<i>Pittosporum tobira</i>
Myrtle, compact	<i>Myrtus communis</i>
Myrtle, wax	<i>Myrica cerifera</i>
Nandina	<i>Nandina domestica</i>
Oleander	<i>Nerium oleander</i>
Oregon grape	<i>Mahonia aquifolium</i>

SHRUBS	
Common Name	Scientific Name
Osmanthus	<i>Osmanthus fragrans</i>
Palm, European fan	<i>Chamaerops humilis</i>
Palm, Mediterranean fan	<i>Chamaerops spp.</i>
Phlox, prickly	<i>Leptodactylon californicum</i>
Photinia, Fraser	<i>Photinia X Fraseri</i>
Pieris, Japanese	<i>Pieris japonica</i>
Pine, Mugo	<i>Pinus mugo</i>
Plum, Natal	<i>Carissa grandiflora</i>
Privet, California	<i>Ligustrum ovalifolium</i>
Privet, glossy	<i>Ligustrum lucidum</i>
Privet, variegated	<i>Ligustrum sinensis</i>
Privet, waxleaf	<i>Ligustrum japonicum</i>
Pyracantha	<i>Pyracantha coccinea</i>
Quince, flowering	<i>Chaenomeles japonica</i>
Ranger, Texas	<i>Leucophyllum frutescens</i>
Redroot	<i>Ceanothus spp.</i>
Rhododendron	<i>Rhododendron spp.</i>
Robira	<i>Pittosporum tobira</i>
Spice plant	<i>Illicium parviflorum</i>
Spiraea	<i>Spiraea vanhouttei</i>
Spiraea, Anthony Waterer	<i>Spiraea X bumalda</i>
Spiraea, Japanese	<i>Spiraea japonica</i>
Sweet bay	<i>Laurus nobilis</i>
Trumpet bush	<i>Tecoma stans</i>
Verbena, lemon	<i>Aloysia triphylla</i>
Viburnum	<i>Viburnum suspensum</i>
Vitex	<i>Vitex spp.</i>
Weigela	<i>Weigela florida</i>
Wild lilac	<i>Ceanothus spp.</i>
Xylosma	<i>Xylosma congestum</i>
Yellowbells	<i>Tecoma stans</i>
Yew*	<i>Taxus media</i>
Yew, Japanese*	<i>Taxus cuspidata</i>
Yew, Southern	<i>Podocarpus macrophyllus</i>
Yucca, Adam's	<i>Yucca filamentosa</i>
Yucca, weeping	<i>Yucca pendula</i>

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

(continued)

## ORNAMENTAL INSTRUCTIONS AND RESTRICTIONS<sup>1</sup>

Site	Application Instructions and Restrictions
Newly transplanted field-grown nursery stock	<ul style="list-style-type: none"> <li>• <b>DO NOT</b> 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>• <b>DO NOT APPLY</b> 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 <b>Pendulum® 3.3 EC herbicide</b> could come into contact with the roots.</li> <li>• <b>DO NOT APPLY</b> during bud swell, bud break or at time of first flush of new growth.</li> <li>• Direct sprays away from grafted or budded tissue on transplants at all times.</li> </ul>
Newly transplanted container-grown nursery stock	<ul style="list-style-type: none"> <li>• <b>DO NOT APPLY</b> 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 <b>Pendulum 3.3 EC</b> could come into contact with the roots.</li> <li>• For container-grown ornamentals, delay first application of the product to bareroot liners for two (2) to four (4) weeks after transplanting.</li> <li>• <b>DO NOT APPLY</b> during bud swell, bud break or at time of first flush of new growth.</li> <li>• Direct sprays away from grafted or budded tissue on transplants at all times.</li> </ul>
Established container, field-grown nursery stock	<ul style="list-style-type: none"> <li>• <b>DO NOT APPLY</b> 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 grafted rootstock, make an application using a shielded sprayer.</li> <li>• Care must be taken to ensure there are no cracks in the soil where <b>Pendulum 3.3 EC</b> could come into contact with the roots.</li> </ul>
Landscape plantings	<ul style="list-style-type: none"> <li>• <b>DO NOT APPLY</b> 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> </ul>
Bare ground for container placement	<ul style="list-style-type: none"> <li>• Apply to soil and water in (including mulch, gravel, wood chips, or other permeable base); replace containerized ornamentals onto pad.</li> </ul>
Greenhouses, shadehouses or other enclosed structures.	<b>DO NOT APPLY</b> 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 3.3 EC** or injury may occur.

**Pendulum® 3.3 EC 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 to 2 months following treatment for possible injury. To the extent allowed by law, **THE USER ASSUMES RESPONSIBILITY FOR ANY CROP DAMAGE OR OTHER LIABILITY. DO NOT treat plants grown for food or feed. DO NOT use treated plants for food or feed.**

It is recommended that treated plants be evaluated for 1 to 2 months prior to making application to a large number of plants. To the extent allowed by law, **THE USER ASSUMES RESPONSIBILITY FOR ANY CROP DAMAGE OR OTHER LIABILITY.**

#### ORNAMENTAL TANK MIXES

Emerged weeds in ornamentals can be controlled using tank mixes containing **Roundup Pro®**, **Finale™**, **Ornamec®**, **Gallery™**, **Princep®**, and other similar products. **DO NOT** apply sprays containing **Roundup Pro** or **Finale** over the top of ornamental plants. Before tank mixing, a simple jar test is recommended to insure compatibility of herbicides.

Refer to manufacturer's labels for specific use directions, precautions, and limitations before tank mixing with **Pendulum 3.3 EC**, and follow those that are most restrictive.

#### LANDSCAPE AND GROUND MAINTENANCE

**Pendulum 3.3 EC** 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 3.3 EC** with a postemergence product labeled for such use.

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

#### NONBEARING FRUIT AND NUT CROPS AND VINEYARDS

**Pendulum 3.3 EC** may be applied for preemergence control of most annual grasses and certain broadleaf weeds on the following nonbearing crops:

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

Refer to **APPLICATION RATE TABLE** for rates.

Apply the spray directly to the ground below the trees or vines. Care must be taken that soil or planting mixes have settled firmly following transplanting and that there are no cracks that would allow direct contact of

**Pendulum 3.3 EC** and roots. Directed sprays where soil and media surfaces are uniformly covered will result in best weed control and plant tolerance. For newly transplanted and one-year-old grapevines, apply only when they are dormant. **DO NOT** apply if buds have started to swell. **Pendulum 3.3 EC** may be used where the roots of a fruit, vine, nut, or ornamental plant encroach into a treatable area.

#### NONCROPLAND AREAS INCLUDING TREE PLANTATIONS

**Pendulum 3.3 EC** is recommended for grounds maintenance in noncropland areas; preemergence control of the weed species listed in and around established tree plantations (including Christmas trees); pulpwood and fiber farms; in and around established ornamentals planted in noncropland areas, such as highway rights-of-way, and utility substations. **Pendulum 3.3 EC** may be used for hardwood and conifer regeneration on conservation reserve program land or similar areas.

Refer to **APPLICATION RATE TABLE** for rates.

**Pendulum 3.3 EC** 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 3.3 EC** 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 3.3 EC** plus **Roundup Pro**, **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 3.3 EC** 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 3.3 EC** plus diuron or simazine combinations will broaden weed control spectrum; however, use of combinations may restrict **Pendulum 3.3 EC** usage in sensitive areas. Refer to manufacturers' labels for specific use directions, precautions, and limitations before use, and follow those that are most restrictive.

#### TOTAL VEGETATIVE CONTROL

**Pendulum 3.3 EC** may be tank mixed with **Arsenal®**, **Plateau®**, **Roundup Pro**, **Karmex®**, **Finale**, **Oust®**, diuron, or other products to provide bare ground or total vegetation control. **Pendulum 3.3 EC** 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® herbicide** in California.

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

**For Kochia:** Combinations of **Pendulum® 3.3 EC herbicide** with **Arsenal** or diuron are recommended if control has been a problem for other herbicides.

## APPLICATION RATES

For preemergence control of the weed species listed using broadcast spray equipment, apply **Pendulum 3.3 EC** at the following rates:

Length of Control	Quarts required to treat 1 acre	Ounces required to treat 1000 sq ft
Short Term (2 to 4 months)	2.4	1.8
Long Term (6 to 8 months)	4.8	3.6

**Hand-held Spray Equipment:** Use the table above to determine the amount of **Pendulum 3.3 EC** 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 mixing instructions discussed elsewhere on this label.

The efficacy of **Pendulum 3.3 EC** will improve if the application is followed by one-half inch of rainfall or its equivalent in sprinkler irrigation. If **Pendulum 3.3 EC** is not activated by rainfall or irrigation within 30 days, erratic weed control may result.

**Pendulum 3.3 EC** will not control established weeds.

If weeds should develop 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 3.3 EC** may be used in conjunction with herbicides registered for postemergence use (i.e. **Roundup Pro®** or **Finale®**) for the control of established weeds. **DO NOT** apply sprays containing **Roundup Pro** or **Finale** over the top of desirable plants. A **Pendulum 3.3 EC** treatment may be followed by any registered herbicide to control weeds not listed on the **Pendulum 3.3 EC** label.

## WEED SPECIES CONTROLLED

**Pendulum 3.3 EC** is recommended for preemergence control of the weed species listed. Applications can be made around and over the top of the ornamentals and to the sites listed on this label.

GRASSES CONTROLLED	
Common Name	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 faberii</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	<i>Panicum fasciculatum</i>
Panicum, fall	<i>Panicum dichotomiflorum</i>
Panicum, Texas	<i>Panicum texanum</i>
Sandbur, field	<i>Cenchrus incertus</i>
Signalgrass	<i>Brachiaria platyphylla</i>
Sprangletop, Mexican	<i>Leptochloa uninervia</i>
Sprangletop, red	<i>Leptochloa filiformis</i>
Witchgrass	<i>Panicum capillare</i>
Woolly cupgrass	<i>Eriochloa villosa</i>

BROADLEAF WEEDS CONTROLLED	
Common Name	Scientific Name
Burweed, lawn	<i>Soliva pterosperma</i>
Carpetweed	<i>Mollugo verticillata</i>
Chickweed, common	<i>Stellaria media</i>
Chickweed, mouseear	<i>Cerastium vulgatum</i>
Clover, hop	<i>Trifolium procumbens</i>
Cudweed	<i>Gnaphalium</i> spp.
Evening primrose	<i>Oenothera biennis</i>
Fiddleneck	<i>Amsinckia intermedia</i>
Filaree	<i>Erodium</i> spp.
Henbit	<i>Lamium amplexicaule</i>
Knotweed, prostrate	<i>Polygonum aviculare</i>
Kochia	<i>Kochia scoparia</i>
Lambsquarters	<i>Chenopodium album</i>
Pigweed	<i>Amaranthus</i> spp.
Puncturevine	<i>Tribulus terrestris</i>
Purslane	<i>Portulaca oleracea</i>
Pusley, Florida	<i>Richardia scabra</i>
Rocket, London	<i>Sisymbrium irio</i>
Shepherdspurse	<i>Capsella bursa-pastoris</i>
Smartweed, Pennsylvania	<i>Polygonum pensylvanicum</i>
Speedwell, corn	<i>Veronica arvensis</i>
Spurge, annual	<i>Euphorbia</i> spp.
Spurge, prostrate	<i>Euphorbia humistrata</i>
Woodsorrel, yellow	<i>Oxalis stricta</i>
Velvetleaf (Buttonweed)	<i>Abutilon theophrasti</i>

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000241-00341.20211215e.**NVA 2021-04-0123-0243**  
Supersedes: NVA 2008-04-123-0122

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