

U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs Registration Division (7505T) 1200 Pennsylvania Ave., N.W.

Washington, D.C. 20460

NOTICE OF PESTICIDE:

X Registration Reregistration

(under FIFRA, as amended)

EPA Reg. Number: Date of Issuance:

93809-18

10/30/24

Term of Issuance:

Unconditional

Name of Pesticide Product:

Pendi H<sub>2</sub>0

Name and Address of Registrant (include ZIP Code):

Axill Solutions, LLC c/o Pyxis Regulatory Consulting Inc. 4110 136th St. Ct. NW Gig Harbor, WA 98332

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

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

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

This product is unconditionally registered in accordance with FIFRA section 3(c)(5) provided that you:

1. Submit and/or cite all data required for registration/reregistration/registration review of your product when the Agency requires all registrants of similar products to submit such data.

Continues page 2

Signature of Approving Official:	Date:
Emily Schmid Emily Schmid, Product Manager 25	10/30/24

Herbicide Branch, Registration Division (7505P)

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- 2. Make the following label changes before you release the product for shipment:
  - Revise the EPA Registration Number to read, "EPA Reg. No. 93809-18."
- 3. Submit one copy of the final printed label for the record before you release the product for shipment.

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 FIFRA 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) lists 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.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records.

The record for this product currently contains the following CSF(s):

Basic CSF dated 10/16/2023

If you have any questions, please contact Jenna Wiegand at 202-566-0437 or at Wiegand.Jenna@epa.gov.

Enclosure

[Note to reviewer: [Text] in brackets indicate optional text.]

[Note to reviewer: {Text} in braces denotes where in the final label text will appear.]

# **Master Label Includes:**

Sublabel A: Agricultural Crop Uses Complete Directions for Use Sublabel B: Non-Agricultural Uses Complete Directions for Use

# Pendi H2O

[Alternate Brand Name: Pendimethalin H2O]

# ACCEPTED

10/30/2024

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under

EPA Reg. No. 93809-18

Axill Solutions, LLC 422 Jasmine Way Roseburg, OR 97471 EPA Reg. No. 93809-xx EPA Est. No.

# {BOOKLET FRONT PANEL LANGUAGE}

{Sublabel A: Agricultural Crop Uses Complete Directions for Use}

PENDIMETHALIN GROUP 3 HERBICIDE



# Pendi H2O

[Alternate brand name: Pendimethalin H2O]

# For Use in Selected Crops

# **ACTIVE INGREDIENT**

Pendimethalin, N-(1-ethylpropyl)-3,4-dimethyl-2, 6-dinitrobenzenamine	40.26%
OTHER INGREDIENTS:	<u>59.74%</u>
TOTAL	100.0%

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

# KEEP OUT OF REACH OF CHILDREN CAUTION/PRECAUCIÓN

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] [label] [booklet] [for] [First Aid][,] [additional] [Precautionary Statements][,] [and] [Directions for Use] [including] [Storage and Disposal Instructions][.]

# Manufactured for:

Axill Solutions, LLC 422 Jasmine Way Roseburg, OR 97471 EPA Reg. No. 93809-xx EPA Est. No.

**Net Contents:** 

FIRST AID			
If swallowed:	Call a poison control center or doctor immediately for treatment advice.		
	• Have person sip a glass of water if able to swallow.		
	• Do not induce vomiting unless told to do so by a poison control center or doctor.		
• Do not give anything by mouth to an unconscious person.			
If on skin or clothing: • Take off contaminated clothing.			
ar on sinn or oronning.	• Rinse skin immediately with plenty of water for 15-20 minutes.		
	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 involving this product, call CHEMTREC at 1-800-424-9300.			

For Chemical Emergency
Spill, Leak, Fire, Exposure or Accident
Call CHEMTREC Day or Night
Within USA and Canada: 1-800-424-9300 or +1 703-527-3887 (collect calls accepted)

# **Precautionary Statements Hazards to Humans and Domestic Animals**

**CAUTION.** Harmful if swallowed or absorbed through the skin. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

# **Personal Protective Equipment (PPE)**

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical resistant gloves
- Shoes plus socks

Follow manufacturer's instruction for cleaning and maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing or 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 thoroughly after handling and 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. If
  pesticide gets on skin, wash immediately with soap and water.
- 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.

NON-TARGET ORGANISM ADVISORY STATEMENT: This product is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated site. Protect the forage and habitat of non-target organisms by following label directions intended to minimize spray drift.

# **Endangered Species Protection**

This product may have effects on federally listed threatened or endangered plant species or their critical habitat. When using this product, you must follow the measures contained in the Endangered Species Protection bulletin for the county or parish in which you are applying the pesticide. To determine whether your county or parish has a Bulletin, and to obtain the Bulletin, consult <a href="https://www.epa.gov/endangered-species">https://www.epa.gov/endangered-species</a>, or call 1-844-447-3813 no more than 6 months before using this product. Applicators must use Bulletins that are in effect in the month in which the pesticide will be applied. New Bulletins will generally be available from the above sources 6 months before their effective dates.

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 feet. The product must be applied using a low boom (20 inches above the ground) and ASABE fine to medium/coarse nozzles.
- If applied by air, leave an untreated buffer zone of 170 feet. Must use straight-stream nozzles (D-6 or larger); wind can be no more than 8 mph, and release height must be 15 feet or less.

# **Physical or Chemical Hazards**

Do not mix or allow coming into contact with oxidizing agents. Hazardous chemical reaction may occur.

# **DIRECTIONS FOR USE**

It is a violation of federal law to use this product in a manner inconsistent with its labeling. This label must be in the possession of the user at the time of pesticide application.

Observe all cautions and limitations in this label and the labels of products used in combination with **Pendi H2O**. The use of **Pendi H2O** not consistent with this label can result in injury to crops, animals, or persons. Keep containers closed to avoid spills and contamination.

**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 protection.

**DO NOT** enter or allow other people (or pets) to enter the treated area until sprays have dried.

# 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.

# 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.

**EXCEPTION:** If the product is soil-injected or soil-incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

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
- Shoes plus socks

# **Product Information**

**Pendi H2O** is a selective herbicide for controlling most annual grasses and certain broadleaf weeds as they germinate. **Table 1** lists the approved crop use sites. **Table 2** contains the complete list of controlled weeds. **Pendi H2O** will not control established weeds.

# Table 1. Use Sites

alfalfa	leeks
artichoke	lentils and peas
asparagus	melons
Brassica head and stem vegetables	mint
Brassica leafy greens	nut trees, bearing and non-bearing
berries, low-growing	olive trees, bearing and non-bearing
bushberries, bearing and non-bearing	onions and shallots (dry bulb, green)
caneberries, bearing and non-bearing	peanuts
carrots	perennial grasses grown for seed
carrots grown for seed	pistachio
citrus fruit trees, bearing and non-bearing	pome fruit trees, bearing and non-bearing
corn (field, pop, field seed, pop seed, fresh sweet)	pomegranate
cotton	potatoes
date palm trees, non-bearing	rice
dry bulbs (garlic, onion, shallot)	safflower
edible beans	small fruit climbing vines, bearing and non-bearing
fallow	soybeans
farmsteads	strawberries and other low-growing berries
fig trees, non-bearing	stone fruit trees, bearing and non-bearing
forage grasses (cool-season, warm-season)	sugarcane
fruiting vegetables	sunflowers and other oilseeds
garlic	tobacco
grain sorghum	triticale
grape, bearing and non-bearing vineyards	vegetable soybean (edamame)
hops	wheat
leaf lettuce	

# **Table 2. Weeds Controlled**

(See crop sections for additional weeds controlled)

Weeds controlled with Pendi H2O applied up to 4 pts/A (1.9 lbs ai/A)			
Grasses			
Annual ryegrass* Italian ryegrass*			
Barnyardgrass	Japanese brome*1		
Canarygrass*2	Johnsongrass (seedling)		
Cheat*2	Jointed goatgrass*1		
Crabgrass	Oat, wild*		
Crowfootgrass	Panicum, fall		
Downy brome*	Panicum, Texas		
Foxtail, giant	Sandbur, field		
Foxtail, green	Shattercane*		
Foxtail, yellow	Signalgrass*		
Goosegrass	Wild proso millet*		
Hairy chess*1	Witchgrass		
Itchgrass*	Woolly cupgrass*		

Broadleaves		
Amaranth, Palmer	Mustard, black <sup>2</sup>	
Bugloss, small <sup>1</sup>	Pigweed species	
Carpetweed	Purslane	
Chickweed, common*	Pusley, Florida	
Henbit	Shepherdspurse*	
Kochia	Smartweed, Pennsylvania*	
Lady's thumb	Spurge, annual	
Lambsquarters, common	Velvetleaf*	
Lambsquarters, slimleaf <sup>2</sup>	Waterhemp species	
London rocket*		

<sup>\*</sup> Suppression, but controlled when **Pendi H2O** use rate exceeds 4 pts/A (1.9 lbs ai/A).

# Weeds controlled with Pendi H2O applied at 4 pts/A (1.9 lbs ai/A) or greater Grasses Annual bluegrass Lovegrass Browntop panicum Sprangletop, Mexican Grass, Guinea<sup>2</sup> Sprangletop, red Junglerice Swollen fingergrass **Broadleaves** Dodder<sup>†</sup> Prostrate, knotweed Fiddleneck Puncturevine Morningglory\*\*

# **Mode of Action**

**Pendi H2O** is a meristematic inhibitor that interferes with the plant's cellular division or mitosis. This and/or other products with the meristematic inhibiting mode of action may not effectively control naturally occurring biotypes of some of the weeds listed on this label. A weed biotype is a naturally occurring plant within a given species that has a slightly different, but distinct, genetic makeup from other plants. Other herbicides with the meristematic inhibiting mode of action include other dinitroaniline herbicides, such as trifluralin. If naturally occurring meristematic inhibiting resistant biotypes are present in a field, apply a tank mix of **Pendi H2O** and/or any other meristematic inhibiting mode of action herbicide or apply sequentially with an appropriate-registered herbicide having a different mode of action to ensure control.

# Weed Resistance Management

For resistance management, **Pendi H2O** is a Group 3 herbicide. Any weed population may contain or develop plants naturally resistant to **Pendi H2O** and other Group 3 herbicides. Weed species with acquired resistance to Group 3 may eventually dominate the weed population if Group 3 herbicides are used repeatedly in the same field. Appropriate resistance-management strategies should be followed.

To delay herbicide resistance take one or more of the following steps:

- Rotate the use of **Pendi H2O** or other Group 3 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds in a field. Whenever possible incorporate multiple weed control practices such as mechanical cultivation, biological management practices, and crop rotation.
- Use tank mixtures with herbicides from a different group if such use is permitted; where information on resistance in target weed species is available, use the less resistance-prone partner at a rate that will control the target weed(s) equally as well as the more resistance-prone partner. Consult your local extension

<sup>&</sup>lt;sup>1</sup> Not suppressed or controlled in California

<sup>&</sup>lt;sup>2</sup> Not controlled in California

<sup>†</sup> For optimum dodder control, use the highest labeled rate of **Pendi H2O** specified in the specific crop.

<sup>\*\*</sup> Suppression

<sup>&</sup>lt;sup>2</sup> Not controlled in California

- service or certified crop advisor if you are unsure as to which active ingredient is currently less prone to resistance.
- Adopt an integrated weed-management program for herbicide use that includes scouting and uses historical
  information related to herbicide use and crop rotation, and that considers tillage (or other mechanical
  control methods), cultural (e.g. higher crop seeding rates; precision fertilizer application method and timing
  to favor the crop and not the weeds), biological (weed-competitive crops or varieties) and other
  management practices.
- Fields should be scouted before application to identify the weed species present and their growth stage to determine if the intended application will be effective. Scout after herbicide application to monitor weed populations for early signs of resistance development. Indicators of possible herbicide resistance include: (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; (3) surviving plants mixed with controlled individuals of the same species. If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method such as hoeing or tillage. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields, and planting clean seed.
- If a weed pest population continues to progress after treatment with this product, discontinue use of this product and switch to another management strategy or herbicide with a different mode of action (MOA), if available. Treat weed escapes with an herbicide with a different MOA or use non-chemical methods to remove escapes. To the extent possible do not allow weed escapes to produce seeds, roots, or tubers.
- Contact your local extension specialist, certified crop advisors, and/or manufacturer for additional herbicide
  resistance management and/or integrated weed management recommendations for specific crops and
  resistant weed biotypes. Report any incidence of non-performance of this product against a particular weed
  species to your retailer or Axill Solutions, LLC representative.

# **Application Rate**

Use rates for **Pendi H2O** when used alone, in tank mix, or for sequential applications are given in **Crop-specific Information**. Use rates of this product vary by soil texture and organic matter. **Table 3** lists the soil texture groupings referred to in this label.

**Table 3. Soil Texture Groups** 

	Sands	
Coarse	loamy sands	
	sandy loams	
	sandy clay loams*	
	sandy clays	
Medium	loams	
	silt loams	
	silts	
	silty clay loams*	
Fine	silty clays	
	clay loams	
	clays	
* These soils ar	re sometimes considered	
transitional soil	s and may be classified as either	
medium-texture	ed or fine-textured soils.	
If Pendi H2O	is used on <b>peat and muck soils</b> ,	
	ay be inconsistent and/or	

reduced. Use the maximum labeled use rate

allowed in the specific crop.

# **Application Timings**

**Pendi H2O** will provide most effective weed control when applied by ground or aerial equipment and subsequently incorporated into soil by rainfall, sprinkler irrigation, or mechanical tillage prior to weed seedling germination. **Pendi H2O** can also be applied through chemigation, including flooded basin irrigation systems.

# Pendi H2O may be applied

- -preplant surface,
- -preplant incorporated,
- -surface incorporated,
- -preemergence,
- -early postemergence,
- -postemergence incorporated (CULTI-SPRAY)
- -layby treatment.

See **Crop-specific Information** for specific application directions and restrictions by crop.

Preplant Surface Application	For use in minimum tillage or no-tillage production systems, apply alone or in tank mixes up to 45 days before planting. When making early preplant surface applications (15 to 45 days prior to planting), use a tank mix of <b>Pendi H2O</b> with other herbicides registered for use in a given crop, or follow this application with another postemergence herbicide application. Rainfall or sprinkler irrigation after application is required to move this product into the upper soil surface where weed seeds germinate.
Preplant Incorporated Application	Apply and incorporate into the upper (1 inch to 2 inches) soil surface up to 60 days before planting. Use an implement capable of giving uniform incorporation; two-pass incorporation usually results in a more consistent result.
Surface Incorporated Application	Uniformly apply as a broadcast or banded treatment to soil surface underneath established trees and/or in ground areas between trees rows. Incorporate into upper (1 inch to 2 inches) soil surface using either rainfall, sprinkler irrigation, or shallow mechanical incorporation using an implement capable of giving uniform incorporation; two-pass mechanical incorporation usually results in a more consistent result.
Preemergence Surface Application	Broadcast treatment uniformly onto the soil surface at planting, and up to 2 days after planting. Rainfall, sprinkler irrigation, or shallow mechanical incorporation after application is required to move this product into the upper soil surface where weed seeds germinate. If adequate rainfall or irrigation does not occur, or soil crusting or soil compaction has occurred, and weed seedling emergence begins, a shallow cultivation or rotary hoeing will improve performance. Make sure that crop seeds are below the tilled soil surface area.
Early Postemergence Application	<b>Pendi H2O</b> must be applied prior to weed seedling emergence or in a tank mix with products that control the emerged weeds. Refer to <b>Crop-specific Information</b> for specific postemergence application instructions by crop.
Postemergence Incorporated Application (CULTI-SPRAY)	Prior to application, crop must be cultivated in such a manner as to throw at least 1 inch of soil over the base of the crop plants. This will prevent direct contact of <b>Pendi H2O</b> and the zone of brace root formation. <b>Pendi H2O</b> must be applied broadcast with a ground sprayer when crop is at least 4 inches tall up to layby. Use drop nozzles if crop foliage will prevent uniform coverage of the soil surface within the rows. Thoroughly and uniformly incorporate <b>Pendi H2O</b> treatments into the soil:  1. With a sweep-type or rolling cultivator set to provide thorough incorporation in the top 1 inch of soil, or

	2. With adequate overhead irrigation water or rainfall. See <b>Crop-specific Information</b> ( <b>Corn</b> and <b>Grain Sorghum</b> ) for more details on (CULTI-SPRAY) application.
Layby Application	Apply directly to the soil between rows as a directed spray following the last normal cultivation (layby). See <b>Crop-specific Information</b> for more details on layby application.
Split Application	Apply <b>Pendi H2O</b> -preplant incorporated up to 60 days prior to planting and followed by a preemergence application at planting or up to 2 days after planting. The total amount of <b>Pendi H2O</b> applied per acre per season cannot exceed the highest labeled rate for any given soil type. See <b>Crop-specific Information</b> for more details on split applications.
Fall Application	Use <b>Pendi H2O</b> in fall application programs in certain crops. See <b>Crop-specific Information</b> for details on fall application timing.

# **Spraying Instructions**

**Pendi H2O** may be applied using either water or sprayable fluid fertilizer (such as straight 32-0-0 or 28-0-0) as the spray carrier. Additionally, **Pendi H2O** may be impregnated on dry bulk fertilizer. Sprayable fluid fertilizer as a carrier is NOT for use after crop emergence unless the typical fertilizer burn symptoms on the crop are acceptable.

# **Aerial Application**

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. Use a flagman or an automatic mechanical flagging unit on the aircraft to avoid overlapping and possible crop injury.

# **Ground Application (Broadcast)**

Uniformly apply with properly calibrated ground equipment in **10** or more gallons of water per acre or **20** or more gallons of liquid fertilizer per acre. Use sprayers equipped with appropriate nozzles that provide uniform and accurate spray distribution and minimize drift. Keep the bypass line on or near the bottom of the tank to minimize foaming. Nozzle and in-line screens must be no finer than 50 mesh. Application of during periods of gusty winds may result in uneven applications. **DO NOT** apply **Pendi H2O** postemergence in liquid fertilizers.

If liquid fertilizer/herbicide(s) mixture separates in the spray tank, clogged equipment and uneven application can result. Always predetermine the compatibility of **Pendi H2O** alone or with other herbicides based on the following compatibility jar test:

- 1. Add 1 pint of fertilizer to a quart jar.
- 2. Add 1 to 4 teaspoon(s) of the dry flowable (DF), wettable powder (WP), aqueous solution (AS), flowable (F) or liquid (L) formulation (depending on mixing ratio required) to the liquid fertilizer. Determine the number of teaspoons of the formulation to add by the following formula:

 $\frac{\text{lbs or pts of product/acre}}{\text{gallons of fertilizer/acre}} \quad \text{x } 11.4 = \text{teaspoons of herbicide to add to 1 pint of fertilizer}$ 

- 3. Close the jar and agitate until the herbicide(s) are evenly dispersed in the liquid fertilizer. If the materials **DO NOT** disperse well, it may be necessary to slurry the chemicals in water before adding to the fertilizer.
- 4. After dispersing the materials, add appropriate number of teaspoons of **Pendi H2O** to the jar and shake well. Add water soluble concentrate herbicides to the mixture last and agitate. Let the mixture stand for 30 minutes; then observe the results. Look for signs of separation: an oily layer or globules, sludge, flakes or other precipitates.
- 5. Evaluate compatibility.
  - a. If the herbicide(s) and liquid fertilizer mixture does not separate, use this mixture in your spray tank.
  - b. If the mixture separates but mixes readily with shaking, the mixture can be used provided that good agitation is maintained in the spray tank.
  - c. If separation of the mixture occurs and agitation does not correct this problem, a compatibility agent is needed.

6. If the need for a compatibility agent is demonstrated, Axill Solutions, LLC recommends the following procedure: Using a clean quart jar, repeat step 1 above and add 1/2 teaspoon of the compatibility agent to the liquid fertilizer. Mix well and repeat steps 2, 3 and 4. If separation or precipitation occurs with the compatibility agent, **DO NOT** use **Pendi H2O** with that specific liquid fertilizer.

# **Ground Application (Band)**

Uniformly apply the broadcast equivalent rate and volume per acre. To determine:

band width in inches row width in inches	X	broadcast rate per acre	=	band rate per acre
band width in inches	X	broadcast volume	=	band volume
row width in inches		per acre		per acre

# **Ground Application (Dry Bulk Fertilizer)**

Apply **Pendi H2O**/dry bulk fertilizer mixtures only with ground equipment. **DO NOT** impregnate **Pendi H2O** onto coated ammonium nitrate or limestone because these materials will not absorb the herbicide. Dry fertilizer blends containing mixtures of ammonium nitrate or limestone may be impregnated with **Pendi H2O**. A minimum of 200 pounds of impregnated dry bulk fertilizer, excluding the weight of ammonium nitrate or limestone, must be applied per acre.

Use the following formula to determine the amount of **Pendi H2O** to be impregnated on a ton of dry bulk fertilizer based on the rate of fertilizer to be applied per acre:

2000		Pendi H2O		Pendi H2O
pounds of dry fertilizer per	X	(rate per acre)	=	per ton of fertilizer
acre				

To impregnate **Pendi H2O** on bulk fertilizer, use a closed rotary-drum mixer or other commonly used dry bulk fertilizer blender equipped with suitable spray equipment. Spray nozzles must be placed to provide uniform coverage of **Pendi H2O** onto the fertilizer during mixing.

Apply the **Pendi H2O**/dry bulk fertilizer mixture with an accurately calibrated dry fertilizer spreader. The **Pendi H2O**/dry bulk fertilizer mixture must be spread uniformly on the soil surface.

# Chemigation Application via Sprinkler Irrigation and Drip Irrigation Systems

**Pendi H2O** may be applied as a chemigation treatment through sprinkler irrigation and drip irrigation systems. Refer to **Crop-specific Information** sections for individual crops. **DO NOT** apply **Pendi H2O** via chemigation to crops unless specified in **Crop-specific Information** section.

Apply this product **ONLY** through a sprinkler irrigation system of the following type: center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move.

Apply this product **ONLY** through a drip irrigation system that has emitters above the soil surface.

DO NOT apply this product through any other type of sprinkler irrigation or drip irrigation system.

Uniform distribution of **Pendi H2O** -treated irrigation water is the sole responsibility of the applicator and is required to avoid crop injury, lack of herbicide effectiveness or illegal pesticide residues in the crop. If you have any questions about calibration, contact State Extension Service specialists, equipment manufacturers, or other experts.

The system must be properly calibrated (with water only) to ensure that the amount of **Pendi H2O** applied corresponds to the specified rate. Apply **Pendi H2O** in 1/2 to 3/4 inch of water during the first sprinkler set (use at least 1 inch of water in the states of **New Mexico**, **Oklahoma** and **Texas**). Axill Solutions, LLC recommends that **Pendi H2O** is mixed with water at a 1:1 ratio in the injection nurse tank to assist with product flowability. Maintain agitation in the injection nurse tank to keep a uniform herbicide suspension during application. When application is complete, flush the system with water.

# **Chemigation Instructions (for low-volume micro sprinklers)**

Output of low-volume sprinkler equals 4 to 50 gallons per hour (gph) per emitter. Point of application MUST be above ground.

Run the irrigation system a sufficient amount of time prior to **Pendi H2O** injection to have all emitters functioning properly. After system is operating properly, length of injection should be such that at one period of time during the injection, the first and last emitters in the system contain Pendi H2O-treated water. Add Pendi H2O to the supply tank already filled with the volume of water required for the injection period. Maintain proper agitation in Pendi H2O injection tank. Mix Pendi H2O in clean water and inject down-line from filters. Following Pendi H2O injection, flush system for a period of time sufficient to clear the line of Pendi H2O. (If Pendi H2O is applied during a normal irrigation cycle, make injection during the last stage.)

# **Chemigation Calibration (for low-volume micro sprinklers)**

Calculation of use rate is based on wetted area around emitters - NOT on tree acres. To determine correct amount of Pendi H2O, use the following formula:

- 1. Treated area per each emitter = AA = 3.14 x (radius x radius)
- 2. The area in square feet wet in each acre = B

$$B = A \times \frac{A \times emitters}{acre}$$

- 3. The total area (in square feet) wet by your system = C C = B x acres covered by system
- 4. Rate per treated acre of **Pendi H2O** (based on length of control desired) = R

Amount of **Pendi H2O** to inject = S

S = 
$$\frac{C}{43,560}$$
  $\times$  R = qts of **Pendi H2O**

# **Example:**

If the average distance from emitter to perimeter of wetted area measured 1 inch below soil surface is 13 inches, then

A = 3.14 x (13 inches x 13 inches) and A = 530.7 square inches

If there are 300 emitters per acre, then

$$B = 530.7 \times 300$$
 and  $B = 1105.6$  square feet wetted per acre

If the system covers 20 acres, then

C = 1105.6 square feet per acre x 20 acres and

C = 22,112 square feet wetted by system

If the desired application rate per treated acre is 2.0 qts of **Pendi H2O**, then

S= 
$$\frac{22,112}{43,560}$$
 x 2.0 and S = 1.0 qt = amount of **Pendi H2O** to inject into the system

# **Restrictions for Chemigation**

- 1. **DO NOT** apply when wind speed favors drift beyond the area intended for treatment.
- 2. DO NOT connect an irrigation system used for pesticide application to a public water system unless the pesticide label prescribed safety devices for public water systems are in place.

- 3. A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.
- 4. Tail water (runoff water) from chemigation that contains **Pendi H2O** must be recirculated and/or contained in the field in a cistern or holding reservoir from the initial application and/or used only on adjacent, approved crops for which **Pendi H2O** is registered for this type of application.
- 5. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump. It must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- 6. The sprinkler chemigation system must contain a functional check valve, vacuum relief valve, and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow. In addition, systems must use a metering pump, such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- 7. The sprinkler chemigation system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.
- 8. The irrigation line or water pump must include a functional pressure switch that will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

# **Chemigation Systems Connected to Public Water Systems**

- 1. Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.
- 2. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
- 3. All chemigation systems connected to public water systems must also follow restrictions listed in the preceding section titled **Chemigation**.

# Applications via Flood, Flooded Basin, or Gravity Flow Irrigation Systems

**Pendi H2O** may be applied via flood, flooded basin, or gravity flow irrigation systems, but only to the following crops: bearing and non-bearing fruit and nut trees, bearing and non-bearing olive trees, bearing and non-bearing vineyards, and alfalfa.

# Use Instructions and Restrictions for Flood, Flooded Basin, and Gravity Flow Irrigation

- 1. **Pendi H2O** may be applied through flood, flooded basin, or gravity flow irrigation systems designed to uniformly distribute irrigation water along the soil surface. Solid set systems utilizing tall riser for overhead application are excluded.
- 2. Follow all label directions for **Pendi H2O** regarding rates per acre, timing of application, and crop-specific restrictions and precautions.
- 3. **DO NOT** connect an irrigation system used for pesticide application to a public water system unless the pesticide label prescribed safety devices for public water systems are in place.
- 4. A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.
- 5. Mix **Pendi H2O** with water at a 1:1 ratio in the injection nurse tank to assist with product flowability. Maintain agitation in the injection nurse tank to keep a uniform herbicide suspension during application. When application is complete, flush the system with water.
- 6. Systems using a gravity-flow pesticide dispensing system must meter the pesticide in the water at the head of the field downstream of a hydraulic discontinuity, such as a drop structure or weir box, to decrease potential for water source contamination from backflow water.
- 7. Tail water (runoff water) from flood, flooded basin, or gravity flow irrigation that contains **Pendi H2O** should be recirculated and/or contained in the field in a cistern or holding reservoir from the initial

application and/or used only on adjacent approved crops for which **Pendi H2O** is registered for this type of application.

- 8. Systems utilizing a pressurized water and pesticide injection system must meet the following requirements:
  - The system must contain a functional check valve, vacuum relief valve, and low-pressure drain appropriately located in the irrigation pipe to prevent water source contamination from backflow.
  - The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent flow of fluids back toward the injection pump.
  - The pesticide injection pipeline must also contain a functional, normally closed solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
  - The system must contain a functional interlocking control to automatically shut off the pesticide injection pump when the water pump stops.
  - The irrigation pipe or water pump must include a functional pressure switch, which will stop the pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
  - Systems must use a metering pump, such as a positive displacement injection pump (e.g. diaphragm pump) of effective design and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
  - Any alternative to the above safety devices must conform to the list of EPA-approved alternative devices.
- 9. Be sure to regularly measure the flow in the field to ensure the correct amount of **Pendi H2O** is metered into the irrigation water and also regularly monitor to ensure that treated water is uniformly distributed across the field. Flow rates through metering devices and distribution of **Pendi H2O** can vary with water temperature and speed of water flow across the field.
- 10. Uniform distribution of **Pendi H2O**-treated irrigation water is the sole responsibility of the applicator and is required to avoid crop injury, lack of herbicide effectiveness, or illegal pesticide residues in the crop.
- 11. If you have questions about calibration, contact State Extension Service specialists, equipment manufacturers or other experts.

# **Spray Drift**

# Aerial Applications:

- Do not release spray at a height greater than 10 feet above the crop canopy, unless a greater application height is necessary for pilot safety.
- Applicators are required to use a medium or coarser droplet size (ASABE S572.1).
- Do not apply when wind speeds exceed 15 mph at the application site. If the wind speed is greater than 10 mph, the boom length must not exceed 65% of the wingspan for fixed wing aircraft or 75% of the rotor diameter for helicopters. Otherwise, the boom length must not exceed 75% of the wingspan for fixed wing aircraft or 90% of the rotor diameter for helicopters.
- Applicators must use ½ swath displacement upwind at the downwind edge of the field.
- Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- Do not apply during temperature inversions.

# **Ground Boom Applications:**

- Applicators must only apply with the nozzle height recommended by the manufacturer, but no more than 3 feet above the ground or crop canopy.
- Applicators are required to use a medium or coarser droplet size (ASABE S572.1).
- Do not apply when wind speeds exceed 15 miles per hour at the application site.
- Do not apply during temperature inversions.

# Boom-less Ground Applications:

- Applicators are required to use a medium or coarser droplet size (ASABE S572.1) for all applications.
- Setting nozzles at the lowest effective height will help to reduce the potential for spray drift
- Do not apply when wind speeds exceed 15 miles per hour at the application site.
- Do not apply during temperature inversions.

# Hand-held Technology Applications:

• Take precautions to minimize spray drift.

# **Spray Drift Advisories**

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT. BE AWARE OF NEARBY NON-TARGET 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 the spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

# **Controlling Droplet Size – Aircraft**

Adjust Nozzles – follow nozzle manufacturer's recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.

# **BOOM HEIGHT - Ground Boom**

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

**RELEASE HEIGHT – Aircraft - Higher release heights increase the potential for 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.

# **Spray Additives**

Spray adjuvants have little or no influence on performance of **Pendi H2O** when applications are made prior to weed emergence. However, several tank mixes with **Pendi H2O** require adjuvants to improve burndown of emerged weeds. Therefore, surfactants, liquid fertilizer (28%, 30%, or 32% UAN [urea ammonium nitrate] or AMS [ammonium sulfate]), or crop oil concentrate may be used with **Pendi H2O** tank mixes applied preplant, preemergence, or early postemergence to the crop. Follow the adjuvant directions on the tank mix partner's label. The adjuvants must contain ingredients accepted by the Environmental Protection Agency.

When an adjuvant is to be used with this product, Axill Solutions, LLC recommends the use of a Chemical Producers and Distributors Association certified adjuvant.

#### **Tank Mixes**

**Pendi H2O** 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 **Pendi H2O** alone.

When using tank mixtures or sequential applications with **Pendi H2O**, 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.

Note: If this product is used in combination with any other product except as specifically recommended in writing by

Axill Solutions, LLC, then Axill Solutions, LLC shall have no liability for any loss, damage, or injury arising out of its use in any such combination not so specifically recommended. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

#### **Tank Mixes with Other Products**

Always perform a mixing test to check the compatibility of Pendi **H2O** with all potential tank mix partners.

# **Mixing Instructions**

1. Fill tank 1/2 to 3/4 full with clean water or liquid fertilizer and agitate. Prior to mixing **Pendi H2O** or tank mixtures in liquid fertilizer, refer to appropriate label sections for specified uses in liquid fertilizer, application instructions, and compatibility determinations.

**NOTE: Pendi H2O** will **NOT** mix in high salt formulation fertilizers, such as 10-34-0. When utilizing high salt formulation fertilizers as the spray carrier, use one of the following:

a. Pre-slurry **Pendi H2O** in water prior to adding to tank; use 1:1 ratio of water to **Pendi H2O**. Add water to fertilizer solution prior to adding **Pendi H2O**. The amount of water must be equal to or greater than the amount of **Pendi H2O** to be used.

#### 2. Pendi H2O Alone

When using **Pendi H2O** alone, add **Pendi H2O** to the partially filled tank while agitating; then fill the remainder of the tank with water or liquid fertilizer.

#### 3. Pendi H2O Tank Mixes

Add the tank mixture ingredients in the following order before adding **Pendi H2O**:

- 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 **Pendi H2O** 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. Thorough and continuous sprayer-tank agitation MUST be maintained during mixing and spraying of **Pendi H2O**. 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.

# **Cleaning Spray Equipment**

Follow the manufacturer's directions to clean application equipment thoroughly using a strong detergent or commercial spray cleaner. After cleaning, triple rinse the equipment before and after applying this product.

#### **Precautions**

- Pendi H2O will not control established weeds. Destroy emerged weeds prior to application.
- **Pendi H2O** is most effective in controlling weeds mechanically incorporated or when incorporated into the weed germination zone by adequate rainfall or overhead irrigation after application.
- When using tank mixtures with **Pendi H2O**, 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. Follow all precautions and restrictions on the labels of all products applied in combination with **Pendi H2O**. Always follow the most restrictive label.
- In the event of a crop loss due to adverse weather conditions or other reasons, any crop registered for a preplant incorporated application of **Pendi H2O** can be replanted without adverse effects the same year (see **Crop-specific Information** for exceptions). If replanting is necessary, **DO NOT** work the soil deeper than the treated zone.
- Refer to Crop-specific Information for crop-specific preharvest intervals and feeding and grazing restrictions.

# **Crop Rotation Restrictions**

- Use of **Pendi H2O** in accordance with label directions is expected to result in normal growth of rotational crops in most situations; however, various environmental and agronomic factors, such as arid conditions, make it impossible to eliminate all risks associated with the use of this product and, therefore, rotational crop injury is always possible. Soil characteristics and environmental conditions which may contribute to crop stress that may be accentuated by the use of **Pendi H2O** include: coarse soils, compaction, high salinity, eroded knolls/hilltops, cold and/or wet soils, drought, and heavy rainfall soon after application.
- When **Pendi H2O** is used in tank mix or sequential combinations, refer to label of other herbicides for additional rotational crop restrictions.
- Restrictions for rotational cropping after the use of **Pendi H2O** are dependent on the application use rate of **Pendi H2O** in the primary crop. The user must thoroughly read the following restrictions to determine the rotational crops for their specific situation, according to application use rate.

# Rotational Crop Restrictions following Pendi H2O Applications to Field and Row Crops

# 1. Application Rate less than or equal to 4 pts/A (1.9 lbs ai/A)

- **a.** Crops labeled for preplant incorporated application may be planted the same season **Pendi H2O** was applied.
- **b. Sugar beets, Red beets and Spinach:** To avoid crop injury, **DO NOT** plant sugar beets, red beets or spinach for 12 months following a spring application of this product or 14 months following a fall application of this product.

If rainfall or irrigation was not sufficient to produce a crop, these crops must not be planted for 18 months following a spring application of this product or 20 months following a fall application of this product.

Plow the land using a moldboard plow to a depth of 12 inches to ensure thorough mixing of soil prior to planting sugar beets, red beets and spinach.

# c. Proso millet, Sorghum (Milo), and Annual or Perennial grass crops or mixtures

Proso millet, sorghum (milo), and annual or perennial grass crops or mixtures must not be planted for 10 months after a spring application of **Pendi H2O** or 12 months after a fall application of **Pendi H2O**, except in the following conditions:

In the states of **Minnesota**, **North Dakota** and **South Dakota**, these crops must not be planted for 18 months following a spring application of this product or 20 months following a fall application of this product.

If rainfall or irrigation was not sufficient to produce a field or row crop, to avoid the possibility of crop injury in areas that receive less than 20 inches of rainfall or irrigation to produce a crop, these crops must not be planted for 18 months following a spring application of this product or 20 months following a fall application of this product.

# d. Wheat and Barley in Colorado, Idaho, Kansas, Montana, Nebraska, Nevada, Oregon, Utah, Washington and Wyoming

Wheat and barley may be planted 4 months after an application of **Pendi H2O** applied at rates less than or equal to 3.2 pts/A (1.52 lbs ai/A) with normal rainfall and/or irrigation. Following harvest of furrow- irrigated crops, thoroughly mix the soil by plowing or deep disking to minimize the potential for herbicide carryover to the following crop. For **Pendi H2O** application rates greater than 3.2 pts/A (1.52 lbs ai/A) but less than or equal to 4.0 pts/A (1.9 lbs ai/A), follow the wheat and barley crop rotation guidelines listed in section e. **Wheat and Barley in All Other States**.

#### e. Wheat and Barley in All Other States

Wheat and barley may be planted 4 months after an application of **Pendi H2O**, except under the following conditions:

If less than 12 inches of rainfall or overhead irrigation was received between application and rotational crop planting, wheat must not be planted before 12 months after a spring application of this product or 14 months after a fall application of this product.

In dryland areas and/or areas where irrigation is necessary to produce the crop treated with **Pendi H2O**, **DO NOT** plant winter wheat or barley as a follow crop if crop failure/destruction occurs and land is fallowed during the summer.

#### f. All Other Rotational Crops Not Specifically Addressed Above

Crops, other than those to which **Pendi H2O** may be applied as a preplant incorporated treatment, may be planted the year following application of **Pendi H2O**, except under the following condition:

If rainfall or irrigation was not sufficient to produce a crop, delay planting for 18 months following a spring application of this product or 20 months following a fall application of this product.

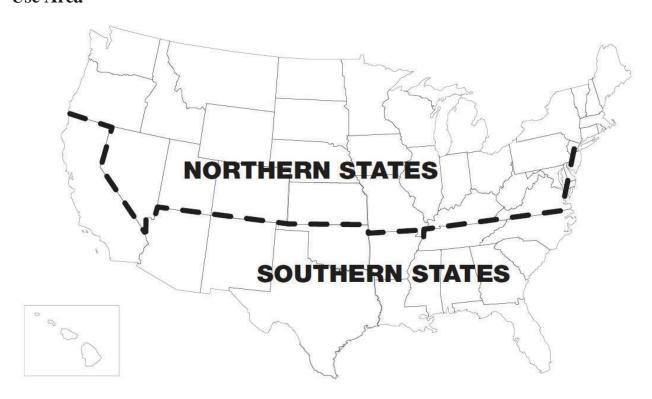
# 2. Application Rate greater than 4 pts/A (1.9 lbs ai/A)

In the growing season following application of **Pendi H2O** to field and row crops at greater than 4 pts/A (1.9 lbs ai/A), plant only those crops for which **Pendi H2O** is labeled for preplant incorporated treatment or crop injury may occur. **DO NOT** plant other crops for 24 months.

# Rotational Crop Restrictions following Pendi H2O Applications to Orchard, Grove, and Vineyard Crops

In the growing season following application of **Pendi H2O** to bearing fruit and nut trees, olive trees, or grapes, plant only those crops for which **Pendi H2O** is labeled for preplant incorporated treatment or crop injury may occur. **DO NOT** rotate to other crops (except for nut crops, fruit trees, olive trees, or grapes) for 24 months following an application of this product to bearing fruit or nut trees, olive trees, or grapes.

# Use Area



# **Crop-specific Information**

Crop Injury. Pendi H2O use may result in crop injury, loss or damage to certain crops under a number of conditions, including but not limited to agronomic, cultural, mechanical, and environmental. Numerous risks of loss or damage to certain crops may be associated with the use of Pendi H2O even when directions for use are followed completely. The user or grower must consider all such risks before deciding to apply the product. Axill Solutions, LLC recommends testing this product on a small portion of the target crop to determine if damage is likely to occur. Each grower who is considering the product for such use should test Pendi H2O to determine its suitability. A grower should use Pendi H2O only to the extent that, in his sole opinion, the benefit of Pendi H2O use outweighs the potential injury to the grower's crop.

In addition, many factors can affect crop growth and/or yield, including but not limited to insects, diseases, weed competition, poor seed quality, improper planting depth, mechanical cultivation, poor weather (such as freezing or excessive wind, rain, heat, or cold), lack of or excessive moisture, crusting, fertility, or hardpans. Risk of loss or

damage to crops may be associated with the use of **Pendi H2O** and contribute to poor stands due to failure of crop to emerge, swelling of roots or other below-ground plant parts, less vigorous plant growth and development, and reduction in yield potential. **Pendi H2O** may also cause injury to sensitive rotational crops.

# **ALFALFA**

# Grown for Forage, Hay, or Seed

**Application Methods:** Apply by ground, air, chemigation, flood, floodbasin, gravity flow irrigation systems, or on dry bulk fertilizer.

# **Use Methods, Timings and Use Rates**

**Established Alfalfa for Forage/Hay.** Apply to established alfalfa grown for forage or hay (defined as alfalfa planted in the fall or spring which has gone through a first cutting/mowing). Apply in a single application or in sequential applications. Uniformly apply at a broadcast rate of **1.1 to 4.2 quarts (1.0 – 4.0 lbs ai/A) per acre** prior to weed germination. Applications can be made in the fall after the last mowing/cutting, during winter dormancy, in the spring, or between cuttings. Make applications prior to the alfalfa reaching 6 inches in regrowth.

Established Alfalfa Grown for Seed Production. Apply to established alfalfa grown for seed production (defined as alfalfa planted in the fall or spring which has gone through a summer season of cutting/mowing). Uniformly apply at a broadcast rate of 1.1 to 4.2 quarts (1.0 - 4.0 lbs ai/A) per acre prior to weed emergence in **one** of the following ways:

- Apply to dormant established alfalfa.
- Apply before alfalfa exceeds 10 inches in height after first mowing/beating.
- When the alfalfa reaches 10 inches in height or if the alfalfa has been mowed/beaten 2 or more times, **Pendi H2O** must be applied with drop nozzles directing the spray so that there is little to no contact with the foliage.

Seedling Alfalfa. Apply to seedling alfalfa grown for forage or hay (defined as alfalfa planted in the fall or spring which has NOT gone through a cutting/mowing). Uniformly apply at a broadcast rate of 1.1 to 2.1 pints (0.5 - 1 lb ai/A) per acre prior to weed germination. Applications can be made when the seedling alfalfa has reached the second trifoliate stage of growth. Make applications prior to the alfalfa reaching 6 inches in growth.

Alfalfa Stand Establishment. Apply at a broadcast rate of 1.0 to 1.5 pints (0.48 - 0.71 lbs ai/A) per acre as a preplant incorporated or preemergence treatment in direct-seeded alfalfa. Some crop stand reduction and stunting may occur with this use of **Pendi H2O**; however, reduced weed competition will allow establishment of a quality stand. Use the lower rates on coarse texture soil or in lower rainfall areas (receiving less than 20 inches of rainfall and irrigation a year).

- **Preplant-incorporated**. Uniformly incorporate **Pendi H2O** into the top 2 to 3 inches of the final seedbed prior to planting.
- Preemergence. Apply directly after drill seeding alfalfa. Plant alfalfa into a seedbed that is firm and free of clods.

# **Chemigation Applications**

Apply **Pendi H2O** through sprinkler irrigation systems. Follow all directions, special instructions and precautions about chemigation in the **Spraying Instructions** section of this label.

# Flood, Flooded Basin, and Gravity Flow Irrigation Systems

Apply **Pendi H2O** in flood, flooded basin, and gravity flow irrigation systems. Follow all directions, special instructions and precautions about flood, flooded basin, and gravity flow irrigation systems in the **Spraying Instructions** section of this label.

#### Restrictions

- **DO NOT** exceed 4.2 quarts (4 lbs ai/A) per acre in a single application.
- For multiple applications, **DO NOT** exceed a cumulative total of 4.2 quarts (4 lbs ai/A) per acre in any one-crop season.
- Preharvest Interval (PHI) for alfalfa forage and hay 14 days.
- DO NOT apply less than 90 days prior to alfalfa harvest for seed.

#### **Precautions**

- Some stunting and chlorosis of the alfalfa may occur with postemergence applications.
- Applications made after the alfalfa exceeds 6 inches in height may result in poor weed control because of possible reduced spray coverage to the soil.

# ARTICHOKE

Application Methods: Apply by ground or air.

# **Use Methods, Timings and Use Rates**

With a single application, uniformly apply to artichokes up to **3.0 pints** (**1.43 lbs ai/A**) **per acre** as a broadcast spray to the soil surface at least 60 days prior to harvest, or uniformly apply to artichokes from **3.1 to 8.2 pints** (**1.47 – 3.9 lbs ai/A**) **per acre** as a broadcast spray to the soil surface at least 200 days prior to harvest. Application must be made pretransplant to artichoke, at no less than 1 to 2 days prior to transplanting.

#### Restrictions

- DO NOT apply postemergence over the top of or to foliage of artichoke because severe injury may occur.
- DO NOT apply more than 3.0 pints (1.43 lbs ai/A) per acre per season when utilizing the 60-day preharvest interval.
- If more than 3.0 pints (1.43 lbs ai/A) per acre (up to 8.2 pints (3.9 lbs ai/A) per acre) is applied, **DO NOT** harvest artichoke until 200 days after application.
- DO NOT apply more than 8.2 pints (3.9 lbs ai) per acre per season.
- DO NOT feed forage or graze livestock in treated fields.

#### **ASPARAGUS**

**Application Methods:** Apply by ground or air.

#### Use Methods, Timings and Use Rates

Apply only to established asparagus, or to newly planted crown asparagus. **DO NOT** apply to newly seeded asparagus. When applying to newly planted crown asparagus, assure crowns are fully covered with 2 to 4 inches of soil.

With a single application, uniformly apply to asparagus up to **8.2 pints** (**3.9 lbs ai/A**) **per acre** as a broadcast spray to the soil surface at least 14 days prior to the first spear harvest or after seasonal harvest is complete. Application must be made prior to spear emergence or remove emerged spears prior to making the application. If asparagus is grown on sandy soils, **DO NOT** apply **Pendi H2O** at more than 2.4 pts/A (1.14 lbs ai/A).

#### Restrictions

- DO NOT apply postemergence over the top of emerged spears as severe injury may occur.
- **DO NOT** apply more than 8.2 pints (3.9 lbs ai/A) per acre per season.
- DO NOT apply within 14 days before harvest.
- DO NOT feed forage or graze livestock in treated fields.
- DO NOT apply by chemigation methods.

# BEARING AND NONBEARING BUSHBERRIES AND CANEBERRIES

# For Use in Crops in the Bushberry Crop Group

Aronia berry, Blueberry (highbush, lowbush), buffalo currant, Chilean guava, Cranberry (highbush), Currant (black, red), Elderberry, European barberry, Gooseberry, Honeysuckle (edible), Huckleberry, Jostaberry, Juneberry (Saskatoon berry), Lingonberry, Native currant, Salal, Sea buckthorn

#### For Use in Crops in the Caneberry Crop Group

Blackberry, Loganberry, Raspberry (black, red, wild)

**Application Method:** Apply by ground only, including by chemigation, flood, flooded basin, and gravity flow irrigation systems.

# Use Methods, Timings and Use Rates

Apply either in a single application or sequentially with an interval of 30 days or more. Apply **Pendi H2O** at between 2.0 to 6.3 quarts (1.9 - 6 lbs ai/A) per acre depending on the grower's weed control program, level of weed infestation, and desired use strategy (see chart below) per application, not exceeding a total of 6.3 quarts/A (6 lbs ai/A) per year in bushberries or caneberries.

# Pendi H2O Use Rate per Acre

Low use rate	2.0 quarts
	(1.9 lbs ai/A)
High use rate	4.0 - 6.3 quarts
	(3.8 - 6 lbs ai/A)

#### **Ground Applications (Bearing)**

Use **Pendi H2O** surface incorporated or (surface) preemergence.

Apply **Pendi H2O** as a broadcast or banded treatment using ground equipment before weed germination. Apply the spray directly to the ground beneath the bushes and/or in areas between rows or trellised rows. Do not apply over the top of bushes, canes, or primocanes with leaves, buds, or fruit because this may cause injury.

Application may be made to (wild) lowbush blueberries after spring or fall pruning but before emergence of new growth in the spring. **Pendi H2O** may be applied over the top of dormant bushes before new growth/emergence in the spring; DO NOT apply over the top of (wild) lowbush blueberries if new spring growth or emergence is imminent.

# **Ground Applications (Non-bearing)**

Apply for preplant incorporated, preplant surface, surface incorporated, or preemergence weed control in non-bearing bushberries and caneberries. **Pendi H2O** may be used before or after transplanting and the establishment of the non-bearing crops.

# **Preplant Surface**

Prior to transplanting, apply uniformly with ground equipment. Avoid allowing roots to contact treated soil when placing transplants into the hole, as injury may occur.

# **Preplant Incorporated**

Apply **Pendi H2O** uniformly before transplanting but before weeds germinate. Incorporate to a depth of 1 to 2 inches. In order to avoid mechanical injury to the crop, apply and incorporate before transplanting. Avoid allowing roots to contact treated soil when placing transplants into the hole, as injury may occur.

# **Preemergence**

Apply in a band or broadcast.

# **Chemigation Applications**

**Pendi H2O** may be applied through sprinkler irrigation and drip irrigation systems. Follow all directions, special instructions, and precautions about chemigation in the Spraying Instructions section of the product label. Do not apply **Pendi H2O** herbicide-treated irrigation water over top of bushes, canes or primocanes with leaves or buds or fruit. Contact with these plant parts by spray mixture may cause injury.

**Flood, Flooded Basin, and Gravity Flow Irrigation Systems** – **Pendi H2O** may be applied through these types of systems. Follow all directions, special instructions, and precautions about chemigation in the Spraying Instructions section of the product label.

# Restrictions

- Preharvest Interval (PHI): 30 days.
- **DO NOT** apply more than 6.3 quarts (6 lbs ai/A) of **Pendi H2O** per acre per year.
- **DO NOT** apply by air.
- **DO NOT** feed forage or graze livestock in treated fields or plantings.
- **DO NOT** apply to newly seeded nursery stock.

# BEARING AND NON-BEARING FRUIT AND NUT TREES

Pendi H2O may be applied in the following individual crops within the fruit tree and tree nut crop groupings:

# **Crops in Citrus Fruit Crop Group**

Australian desert lime, Australian finger lime, Australian round lime, Brown River finger lime, Calamondin, Citron, Citrus hyrbrids, Grapefruit, Japanese summer grapefruit, Kumquat, Lemon, Lime, Mediterranean mandarin, Mount White lime, New Guinea wild lime, Orange (sour, sweet), Pummelo, Russell River lime, Satsuma mandarin, Sweet lime, Tachibana orange, Tahiti lime, Tangelo, Tangerine (mandarin), Tangor, Trifoliate orange, Uniq fruit

# **Crops in Tree Nut Crop Group**

African nut-tree, Almond, Beechnut, Brazil nut, Brazilian pine, Bunya, Bur oak, Butternut, Cajou nut, Candlenut, Cashew, Chestnut, Chinquapin, Coconut, Coquito nut, Dika nut, Ginkgo, Guiana chestnut, Hazelnut (filbert), Heartnut, Hickory nut, Japanese horse-chestnut, Macadamia nut, Mongongo nut, Monkeypot, Monkey puzzle nut, Okari nut, Pachira nut, Peach palm nut, Pecan, Pequi, Pill nut, Pine nut, Pistachio, Sapucaia nut, Tropical almond, Walnut (black), Walnut (English), Yellowhorn

# **Crops in Pome Fruit Crop Group**

Apple, Azarole, Crabapple, Loquat, Mayhaw, Medlar, Pear, Pear (Asian), Quince (including Chinese and Japanese), Tejocote

#### **Crops in Stone Fruits Crop Group**

Apricot (including Japanese), Capulin, Cherry (black, Nanking, sweet, tart), Jujube (Chinese), Nectarine, Peach, Plum (including American, beach, Canada, cherry, Chickasaw, Damson, Japanese, Klamath, prune), Plumcot, Sloe

# Other Fruit Trees Olive, Pomegranate

Date Palm\*, Fig\*

(non-bearing only)

Application Methods: Apply by ground, chemigation, flood, flooded basin, and gravity flow irrigation systems.

# **Use Methods, Timings and Use Rates**

Apply **Pendi H2O** either in a single application or sequentially with an interval of 30 days or more.

Apply between **2.0 to 6.3 quarts (1.9 – 6 lbs ai/A) per acre** in citrus, nut trees, and non-bearing date palm or fig trees and between **2.0 to 4.2 quarts (1.9 – 4 lbs ai/A) per acre** in olive, pome, stone fruit, and pomegranate trees depending on the grower's weed control program, level of weed infestation, and desired use strategy (see following chart). Do not apply more than a total of 4.2 quarts/A (4 lbs ai/A) per year in olive, pome, pomegranate, and stone fruit trees, and do not apply more than a total of 6.3 quarts/A (6 lbs ai/A) per year in citrus and nut trees, and non-bearing date palm or fig trees.

# **Ground Applications (Bearing)**

Use **Pendi H2O** as a **surface incorporated** or (**surface**) **preemergence** application.

Apply as a broadcast or banded treatment using ground equipment before weed germination. Apply the spray directly to the ground beneath the trees and/or in areas between rows. **DO NOT** apply over the top of trees with leaves or buds or fruit. Contact by the spray mixture with leaves, shoots, or buds may cause injury.

# **Ground Applications (Non-bearing)**

Apply **Pendi H2O** for preplant incorporated, preplant surface, surface incorporated or preemergence weed control in non-bearing fruit and nut tree crops. Use **Pendi H2O** before or after transplanting the non-bearing crops.

**Preplant surface.** Prior to transplanting, uniformly apply with ground equipment. Avoid root contact with treated soil when placing transplants into the hole or injury may occur.

<sup>\*</sup>Date Palm and Fig: Not for use in California.

**Preplant Incorporated.** Uniformly apply prior to transplanting but before weeds germinate. Incorporate **Pendi H2O** to a depth of 1 to 2 inches. Application and incorporation must be made prior to transplanting to avoid mechanical injury to the crop. Avoid root contact with treated soil when placing transplants into the hole or injury may occur.

**Preemergence.** Applications may be in a band or broadcast.

# **Chemigation Applications**

Apply **Pendi H2O** through sprinkler irrigation and drip irrigation systems. Follow all directions, special instructions and precautions about chemigation in the **Spraying Instructions** section of this label. **DO NOT** apply **Pendi H2O**-treated irrigation water over top of trees with leaves or buds or fruit. Contact with leaves, shoots, or buds by spray mixture may cause injury.

# Flood, Flooded Basin, and Gravity Flow Irrigation Systems

Apply **Pendi H2O** in flood, flooded basin, and gravity flow irrigation systems. Follow all directions, special instructions and precautions about flood, flooded basin, and gravity flow irrigation systems in the **Spraying Instructions** section of this label.

#### Restrictions

- DO NOT apply more than 4.2 quarts (4 lbs ai/A) per acre per year in pome, stone and other fruit trees.
- **DO NOT** apply more than 6.3 quarts (6 lbs ai/A) per acre per year in citrus and nut trees, and non-bearing date palm and fig trees.
- DO NOT apply by air.
- DO NOT feed forage or graze livestock in treated groves or orchards.
- DO NOT apply within 1 day of harvest of citrus fruit.
- **DO NOT** apply within 60 days before harvest of olive, pome, pomegranate, stone fruit, and tree nuts.
- DO NOT apply to newly seeded nursery stock.

# BEARING AND NON-BEARING GRAPE

**Application Methods:** Apply by ground, chemigation, flood, flooded basin, or gravity flow irrigation systems.

# **Use Methods, Timings and Use Rates**

Apply **Pendi H2O** either in a single application or sequentially with an interval of 30 days or more. Uniformly apply in bearing grape vineyards up to **6.3 quarts** (**6 lbs ai/A**) **per acre** depending on the grower's weed control program, level of weed infestation, and desired use strategy (see chart following).

Pendi H2O Use Rate per Acre

Low Use Rate	High Use Rate
3.2 quarts (3 lbs ai/A)	6.3 quarts (6 lbs ai/A)

Apply Pendi H2O any time after fall harvest, during winter dormancy, and in the spring.

# **Ground Applications (Bearing)**

Use **Pendi H2O** as a **surface incorporated** or (**surface**) **preemergence** application.

Apply as a broadcast or banded treatment using ground equipment before weed germination. Apply the spray directly to the ground beneath the grape vines and/or in areas between rows. **DO NOT** apply over the top of grape vines with leaves or buds or fruit. Contact with leaves, shoots, or buds by the spray mixture may cause injury.

# **Ground Applications (Non-bearing)**

Apply **Pendi H2O** for preplant incorporated, preplant surface, surface incorporated or preemergence weed control in non-bearing vineyards. Use **Pendi H2O** before or after transplanting.

**Preplant surface.** Prior to transplanting, uniformly apply with ground equipment. Avoid root contact with treated soil when placing transplants into the hole or injury may occur.

**Preplant Incorporated.** Uniformly apply prior to transplanting but before weeds germinate. Incorporate **Pendi H2O** to a depth of 1 to 2 inches. Application and incorporation must be made prior to transplanting to avoid mechanical injury to the crop. Avoid root contact with treated soil when placing transplants into the hole or injury may occur.

**Preemergence.** Make applications in a band or broadcast.

# **Non-bearing Grape**

# For Newly Transplanted and One-year-old Grapevines:

- DO NOT allow spray to contact buds or leaves, or leaf distortion may occur.
- DO NOT apply to newly transplanted trees or vines until ground has settled and no cracks are present.

#### **Chemigation Applications**

Apply **Pendi H2O** through sprinkler irrigation and drip irrigation systems. Follow all directions, special instructions and precautions about chemigation in the **Spraying Instructions** section of this label. **DO NOT** apply **Pendi H2O** treated irrigation water over the top of grape vines with leaves, or buds, or fruit.

# Flood, Flooded Basin, and Gravity Flow Irrigation Systems

Apply **Pendi H2O** in flood, flooded basin, and gravity flow irrigation systems. Follow all directions, special instructions and precautions about flood, flooded basin, and gravity flow irrigation systems in the **Spraying Instructions** section of this label.

#### Restrictions

- DO NOT apply over the top of grape vines with leaves, or buds, or fruit.
- DO NOT apply by air.
- **DO NOT** apply more than 6.3 quarts (6 lbs ai/A) per acre per year (a single growing season).
- DO NOT apply within 90 days before harvest of fruit.
- DO NOT feed forage or graze livestock in treated vineyards.

# BEARING AND NON-BEARING SMALL FRUIT CLIMBING VINES

Amur River Grape, Gooseberry, Kiwifruit (fuzzy, hardy), Maypop, Schisandra Berry

**Application Methods:** Apply by ground, chemigation, flood, flooded basin, or gravity flow irrigation systems.

#### Use Methods, Timings and Use Rates

Apply **Pendi H2O** either in a single application or sequentially with an interval of 30 days or more. Uniformly apply in small fruit climbing vines up to **4.2 quarts** (**4 lbs ai/A**) **per acre** depending on the grower's weed control program, level of weed infestation, and desired use strategy (see following chart).

Pendi H2O Use Rate per Acre

Low Use Rate	High Use Rate
3.2 quarts (3 lbs ai/A)	4.2 quarts (4 lbs ai/A)

Apply **Pendi H2O** any time after fall harvest, during winter dormancy, and in the spring.

#### **Ground Applications**

Use **Pendi H2O** as a surface incorporated or (surface) preemergence application

Apply as a broadcast or banded treatment using ground equipment before weed germination. Apply spray directly to the ground beneath small fruit climbing vines and/or in areas between rows. **DO NOT** apply over the top of small fruit climbing vines with leaves, buds, or fruit. Contact with leaves, buds, or fruit by the spray mixture may cause injury.

# **Chemigation Applications**

Apply **Pendi H2O** through sprinkler irrigation and drip irrigation systems. Follow all instructions and precautions about chemigation in the **Spraying Instructions** section of this label. **DO NOT** apply **Pendi H2O**-treated irrigation water over the top of small fruit climbing vines with leaves, buds, or fruit. Contact with leaves, buds, or fruit by the spray mixture may cause injury.

#### Flood, Flooded Basin, and Gravity Flow Irrigation Systems

Apply **Pendi H2O** in flood, flooded basin, and gravity flow irrigation systems. Follow all instructions, and precautions about flood, flooded basin, and gravity flow irrigation systems in the **Spraying Instructions** section of this label.

#### Restrictions

- DO NOT apply over the top of small fruit climbing vines with leaves, buds, or fruit.
- DO NOT apply by air.
- **DO NOT** apply more than 4.2 quarts (4 lbs ai/A) per acre per year (a single growing season).
- DO NOT apply within 60 days before harvest of fruit.
- DO NOT feed forage or graze livestock in treated vines.
- DO NOT apply when impregnated onto dry bulk fertilizer in small fruit climbing vines.

# BRASSICA HEAD AND STEM VEGETABLES

Broccoli, Brussels Sprouts, Cabbage, Cauliflower, Cavalo Broccolo, Chinese Broccoli, Chinese Cabbage (napa), Chinese Mustard Cabbage, Kohlrabi

**Application Methods:** Apply by ground or air.

#### Use Methods, Timings and Use Rates

Uniformly apply as a preplant surface application prior to transplanting, or as a postemergence application.

Uniformly apply only by ground as a postemergence-directed application to transplanted or established direct-seeded Brassica head and stem vegetables.

**DO NOT** apply prior to direct-seeded Brassica head and stem vegetables.

With a single application, apply up to **2.1 pints** (**1 lb ai/A**) **per acre** to Brassica head and stem vegetables as a broadcast or banded spray to the soil surface at pre-transplant time; or as a broadcast postemergence foliar spray; or as a postemergence-directed spray between vegetable rows. Apply postemergence or postemergence-directed to 2-leaf to 4-leaf vegetable transplants at 1 to 3 days after transplanting, or to the 2-leaf to 4-leaf stage of directseeded vegetable plants.

Apply as a postemergence-directed spray on the soil at the base of Brassica head and stem vegetable plants, beneath plants, and between rows. Avoid direct spray contact with foliage or stems because crop injury may occur. Be sure roots of transplants are established. Following the postemergence-directed spray and when sufficient rainfall or irrigation does not occur, mechanically incorporate to activate the herbicide. Apply **Pendi H2O** prior to weed germination for optimum control. Emerged weeds will not be controlled by this treatment.

#### **Use Rates**

# Pre-transplant, Postemergence or

# Postemergence-directed

Soil Texture	Broadcast Rate
Coarse	1.0 to 1.5 pts/A (0.48 – 0.71 lb ai/A)
Medium	1.5 to 2.1 pts/A (0.71 – 1 lb ai/A)
Fine	1.5 to 2.1 pts/A (0.71 – 1 lb ai/A)

#### Restrictions

- **DO NOT** apply more than 2.1 pints (1 lb ai/A) per acre per season.
- **DO NOT** apply within 60 days before broccoli harvest.
- DO NOT apply within 70 days before cabbage or other Brassica head and stem vegetables harvest.
- DO NOT feed forage or graze livestock in treated fields.
- DO NOT apply via chemigation methods.

#### **Precautions**

- Avoid root contact with Pendi H2O-treated soil when placing transplants into furrow or hole, or crop injury may
  occur.
- Avoid overlapping spray patterns because crop injury can occur.

#### **CARROTS**

Application Methods: Apply by ground, air, or chemigation.

# Use Methods, Timings and Use Rates

**Preemergence.** Make a single broadcast application at **2.0 pints** (**0.95 lb ai/A**) **per acre** as a postplant treatment prior to emergence of the crop and before weed germination. Apply as a preemergence treatment within 2 days after planting.

**Layby.** Apply **Pendi H2O** only by ground equipment at layby (last mechanical cultivation) at **2.0 pints** (**0.95 lb ai/A**) **per acre** as a directed spray to the soil between rows. Apply prior to weed germination. Emerged weeds will not be controlled by this treatment. **DO NOT** allow the spray to contact carrot plants or injury may occur. **DO NOT** apply layby applications by chemigation or by air.

# **Chemigation Applications**

Apply **Pendi H2O** through sprinkler irrigation systems. Follow all directions, special instructions and precautions about chemigation in the Spraying Instructions section of this label. **DO NOT** allow **Pendi H2O**-treated irrigation water to contact carrot plants.

**DO NOT** apply tank mixtures through any type of irrigation system unless the label instructions on chemigation of all products are followed.

#### Restrictions

- DO NOT apply more than 2.0 pints (0.95 lb ai/A) per acre per season.
- **DO NOT** apply within 60 days before harvest.
- DO NOT feed forage or graze livestock in treated fields.
- DO NOT apply as a broadcast spray over top of carrots or crop injury may result.
- DO NOT apply layby applications by chemigation or by air.

#### CARROTS GROWN FOR SEED PRODUCTION

**Application Methods:** Apply only by layby with ground equipment.

# **Use Methods, Timings and Rates**

**Last Cultivation (Layby).** Apply following the last normal mechanical cultivation (layby) at a rate of **1.0 to 4.0 pints** (**0.48 – 1.9 lbs ai/A) per acre** (on a broadcast basis). Uniformly apply as a directed spray to the soil between rows. **DO NOT** allow the spray to contact carrot plants or injury may occur. Use protective shields to avoid contact with carrot foliage. Use properly calibrated and accurate nozzles and equipment.

Layby applications can be applied to carrots previously treated with herbicides registered in/on carrots. Consult the labels of those herbicides for suggested treatments, rates to be used, and precautions or restrictions for use in carrots and for follow crop restrictions.

#### Restrictions

- DO NOT apply as a broadcast spray over top of carrots or crop injury may result.
- DO NOT apply layby applications by chemigation or by air.
- **DO NOT** apply within 60 days before carrot seed harvest.
- DO NOT feed, forage or graze livestock in treated fields.
- DO NOT harvest carrots for food or feed use.

# **Special Crop Use Restrictions**

The pesticide applicator, the producer of the crop, and the seed conditioner must be aware that use of this product according to this labeling is deemed a nonfeed/nonfood use. If the applicator of this pesticide is not the producer, the applicator must provide a copy of this labeling to the producer of the crop. Producers of this crop who use this product, or cause the product to be used on a field they operate, shall provide a copy of this pesticide label to the seed conditioner.

Consequently, no portion of this carrot seed crop, including but not limited to green chop, hay, pellets, meal, whole seed, cracked seed, roots, bulbs, foliage and seed screenings, may be used or distributed for food or feed purposes.

Processed carrot seed from a field treated with this product must bear a specific tag or conspicuous container labeling, or if shipped in bulk, on the shipment invoice or bill of lading, with the following statement: "Not for human consumption or animal feed." All seed screenings from seed processing shall be disposed of in such a manner that the screenings cannot be distributed or used for human food or animal feed purposes.

The seed conditioner shall keep records of screening disposal for three years from the date of disposal and shall furnish the records immediately upon request. Conditioner disposal records shall consist of documentation of on-farm disposal, disposal at a controlled dumpsite, incinerator, composter or other equivalent disposal site and shall include the lot numbers, amount of material disposed of, the grower(s), and the date of disposal.

#### **CORN**

# Field, Pop, Field Seed, Pop Seed, Fresh Sweet

**Application Methods:** Apply by ground, air or chemigation.

# **Use Methods, Timings and Use Rates**

Apply **Pendi H2O** in conventional, minimum, or no-till as a preemergence, postemergence, or postemergence incorporated (CULTI-SPRAY) application in field corn.

Apply **Pendi H2O** in conventional tillage as a preemergence or postemergence application in field seed corn, popcorn, popcorn seed corn, and fresh sweet corn.

# Regardless of tillage system, plant corn at least 1-1/2 inches deep and completely cover with soil.

In conventional tillage systems, plant into a seedbed that is firm and free of clods and trash. Use only where adequate tillage is practiced to provide good soil coverage of the corn seed.

In no-till systems, utilize a no-till planter that is capable of planting through crop residue. The use of no-till planters under conditions that **DO NOT** allow good soil coverage of the corn seed can result in reduced crop stand or injury if **Pendi H2O** contacts the germinating corn seed. Check equipment to ensure good seed coverage.

**Pendi H2O** tank mix combination treatments are most effective in controlling weeds when adequate rainfall or overhead irrigation is received after application. If cultivation is necessary because of soil crusting or weed germination, use shallow tillage and make certain corn seeds are below the tilled area.

**Additional Weeds Controlled.** In addition to the weeds listed in **Table 2**, **Pendi H2O** will control the following weeds in corn with CULTI-SPRAY application: wild proso millet and shattercane.

Preemergence. Apply after planting but before weeds germinate and crop emerges.

**Postemergence.** Apply postemergence up to 30 inches tall field corn (20 to 24 inches tall for pop, seed and fresh sweet corn) or in the V8 growth stage, whichever is more restrictive. If the corn canopy prevents applications from reaching the soil, use drop nozzles and apply as a directed spray.

**CULTI-SPRAY.** Apply alone or with atrazine when field corn is at least 4 inches tall until last cultivation (layby). **Pendi H2O** plus atrazine must be applied before the field corn reaches 12 inches in height.

**DO NOT exceed 1.2 lbs ai per acre of atrazine, as specified on the atrazine label.** Under situations of low rainfall or soil moisture, when deep germinating weeds such as shattercane or field sandbur are anticipated, mechanical incorporation will provide best results. If cultivation is needed after application and incorporation of **Pendi H2O**, do not make the depth of cut deeper than the depth of cut used to incorporate.

# **Chemigation Applications**

**Pendi H2O** may be applied through sprinkler irrigation systems. Follow all directions, special instructions and precautions about chemigation in the **Spraying Instructions** section of this label.

#### **Use Rates**

**Preemergence or Postemergence Applications** 

Soil Texture	Organic Matter		
	< 1.5%	1.5% to 3.0%	> 3.0%
Coarse	2.0 pts/A (0.95 lb ai/A)	3.0 pts/A (1.43 lb ai/A)	3.0 pts/A (1.43 lb ai/A)
Medium	3.0 pts/A (1.43 lb ai/A)	3.0 pts/A (1.43 lb ai/A)	4.0 pts/A (1.9 lbs ai/A)
Fine	3.0 pts/A (1.43 lb ai/A)	4.0 pts/A (1.9 lbs ai/A)	4.0 pts/A (1.9 lbs ai/A)

**CULTI-SPRAY Applications - Field Corn ONLY** 

Soil Texture	Southern States <sup>1</sup>	Northern States <sup>1</sup>
Coarse	1.5 pts/A (0.71 lb ai/A)	2.0 pts/A (0.95 lb ai/A)
Medium	2.0 pts/A (0.95 lb ai/A)	3.0 pts/A (1.43 lb ai/A)
Fine	3.0 pts/A (1.43 lb ai/A)	3.0 pts/A (1.43 lb ai/A)
<sup>1</sup> See <b>Use Area</b> for map of specific state	es.	

#### Restrictions

- DO NOT apply in reduced, minimum or no-till fresh sweet corn, seed corn or popcorn.
- DO NOT apply in no-till in California.
- DO NOT apply preplant incorporated.
- DO NOT apply postemergence in liquid fertilizer.
- Livestock can graze or be fed forage from treated corn after 21 days following application.

**Pendi H2O** may be applied sequentially in a single crop season as long as the total use rate applied in the crop season does not exceed the highest rate per acre for any given soil type.

# **COTTON**

**Application Methods:** Apply by ground, air, or chemigation in conventional, minimum, stale seedbed, or no-till as a preplant surface, preplant incorporated, preemergence, layby or postemergence application in cotton.

# Use Methods, Timings and Use Rates

Preplant surface, preemergence, layby and postemergence treatments are most effective in controlling weeds when adequate rainfall or overhead irrigation is received after application. Shallow cultivate if soil crusting or soil compaction occurs. If weeds begin to germinate or adequate moisture is not received after application, use shallow tillage (rotary hoe or light harrow) and make sure cotton seeds are below tilled area. The use of a postemergence herbicide treatment may be required to control weed escapes at planting or following cotton emergence.

**Additional Weeds Suppressed.** In addition to the weeds listed in **Table 2**, **Pendi H2O** will suppress Russian thistle in the state of Arizona.

**Preplant Surface.** Apply up to 15 days prior to planting. Apply **Pendi H2O** tank mixes and sequential programs as specified under the tank mix section.

**Preplant Incorporated.** Apply up to 60 days prior to planting and incorporate. Apply **Pendi H2O** tank mixes and sequential programs as specified under the tank mix section.

**Preemergence.** Apply at planting or up to 2 days after planting. Apply to a seedbed that is firm and free of clods. Apply **Pendi H2O** tank mixes and sequential programs as specified under the tank mix section.

**Preplant Incorporated followed by Preemergence.** Apply up to 60 days prior to planting and incorporate. Apply overlay application of at planting or up to 2 days after planting. The total amount of **Pendi H2O** applied per acre must not exceed the highest labeled rate for a given soil type. Preplant incorporated and preemergence applications of **Pendi H2O** may be applied with the labeled tank mix herbicide(s).

Layby Application (at last cultivation). Apply directly to the soil between rows as a directed spray following the last normal cultivation (layby). Layby applications can be applied in cotton previously treated with **Pendi H2O** or any herbicide(s) registered for use in cotton. Consult the labels of those herbicides for suggested treatments, rates to be used, and precautions or restrictions for use in cotton, and for rotation crop restrictions. The total amount of **Pendi H2O** applied per acre per season must not exceed the highest labeled rate for a given soil type. Glyphosate-containing products may be applied with **Pendi H2O** at layby in cotton with the **Roundup Ready®** or glyphosate tolerant gene. **DO NOT apply glyphosate-containing products at layby on non-Roundup Ready or glyphosate tolerant cotton.** 

**Postemergence.** Apply by ground or air as a broadcast over-the-top postemergence application in cotton. Not for use postemergence in California.

Postemergence treatments are most effective in controlling weeds when adequate rainfall or overhead irrigation is received after application. Applications before weeds germinate or after clean cultivation to remove existing weeds

are necessary because **Pendi H2O** will not control weeds that are emerged at time of application. The use of a postemergence herbicide treatment is required to control emerged weeds.

Use Pendi H2O alone or tank mixed with Roundup PowerMAX® herbicide (on Roundup Ready cotton or Roundup Ready Flex cotton), Roundup WeatherMAX® herbicide (on Roundup Ready cotton or Roundup Ready Flex cotton) or Liberty® herbicide (on LibertyLink® cotton). When tank mixing Pendi H2O with another herbicide product, always follow the most restrictive labeling. DO NOT tank mix and apply over-the-top postemergence with products containing s-metolachlor, glyphosate, prometryn, or fluometuron.

Dry ammonium sulfate (AMS) at 17 lbs/100 gallons of spray solution must be used when tank mixing **Pendi H2O** with **Roundup PowerMAX** or **Roundup WeatherMAX**. Liquid AMS may also be used, but must be used at an equivalent rate to 17 lbs of dry weight AMS/100 gallons of spray solution. A nitrogen replacement should not be used with this tank mix unless specified as acceptable from Axill Solutions, LLC in writing. An appropriate mixing order is as follows: fill tank to at least 1/2 full with water; then add the following in order: AMS, **Pendi H2O**, Roundup® herbicide; then fill the tank to capacity with water.

# Postemergence applications of Pendi H2O on Roundup Ready cotton or Roundup Ready Flex cotton only

Note: The instructions provided for the use of **Pendi H2O** on **Roundup Ready cotton** or **Roundup Ready Flex cotton** are specific to and must only be used with varieties designated as **Roundup Ready cotton** or **Roundup Ready Flex cotton**.

Consult and follow the **Roundup PowerMAX** or **Roundup WeatherMAX** labels for their respective rates, application methods, precautions and application timing restrictions.

# • Roundup Ready cotton

Tank mixing Pendi H2O with Roundup PowerMAX or Roundup WeatherMAX (in water): Apply Pendi H2O broadcast postemergence over the top of cotton after cotton reaches the 4- to 5-leaf stage of growth. DO NOT apply prior to reaching the 4-leaf cotton stage or past the 5-leaf stage or significant crop injury and/or yield loss may occur.

# • Roundup Ready Flex cotton

Tank mixing Pendi H2O with Roundup PowerMAX or Roundup WeatherMAX (in water): Apply Pendi H2O broadcast postemergence over the top of cotton after cotton reaches the 4- leaf stage of growth, but not after the 8-leaf stage of growth. Over-the-top applications made before the 4-leaf stage or after the 8-leaf stage of development may result in crop injury and/or yield loss.

# Postemergence applications of Pendi H2O on LibertyLink cotton

**Note:** The instructions provided for the use of **Pendi H2O** on **LibertyLink cotton** are specific to and must only be used with varieties designated as **LibertyLink cotton**.

Consult and follow the Liberty label for the respective rates, application method, precautions and application timing restrictions.

# LibertyLink cotton

**Tank mixing Pendi H2O with Liberty (in water):** Apply **Pendi H2O** broadcast postemergence over the top of cotton after cotton reaches the 4-leaf stage of growth, but not after the 8-leaf stage of growth. Over-the-top applications made before the 4-leaf stage or after the 8-leaf stage of development may result in crop injury and/or yield loss.

# Postemergence applications of Pendi H2O ALONE to all cotton (in water)

Apply **Pendi H2O** broadcast postemergence over the top of cotton after cotton reaches the 4-leaf stage of growth, but not after the 8-leaf stage of growth. Over-the-top applications made before the 4-leaf stage or after the 8-leaf stage of development may result in crop injury and/or yield loss.

Over-the-top postemergence applications of **Pendi H2O** can be applied in cotton previously treated with at-planting soil applications of **Pendi H2O** or any other soil-applied herbicide(s) registered for use in cotton. Consult the labels of those herbicides for suggested treatments, rates to be used, and precautions or restrictions for use in cotton and for rotation crop restrictions. Follow the most restrictive label instructions when using products in combination with soil-applied **Pendi H2O**.

**Precautions:** Postemergence applications of **Pendi H2O** may cause temporary growth reduction and/or leaf discoloration or malformation of cotton following application.

Restrictions for Postemergence Application of Pendi H2O ALONE to all cotton (in water): DO NOT apply over the top in fluid fertilizer.

**DO NOT** apply in tank mix with any adjuvant, surfactant, oil, or other pesticide (except for cotton insecticides).

**DO NOT** apply in any manner except as described in this label, or crop injury and/or yield reduction may occur.

**DO NOT** apply if cotton is under stress (including stress related to previous pesticide treatments, poor fertilization, environmental conditions and/or pest damage) at time of application. If cotton is under stress (including stress related to previous pesticide treatments, poor fertilization, environmental conditions and/or pest damage) at time of application, **Pendi H2O** may retard cotton recovery and/or adversely affect yield.

**Fall Application.** Apply **Pendi H2O** for weed control in cotton in the fall, after October 15 (up to 140 days prior to planting cotton) in Arizona, California, Louisiana, Mississippi, New Mexico, Oklahoma and Texas. Apply **Pendi H2O** at the broadcast rate of 2.0 pints(0.95 lb ai/A) per acre on coarse or medium soils and 3.0 pints (1.43 lbs ai/A) per acre on fine soils.

#### **Chemigation Applications**

Apply **Pendi H2O** through sprinkler irrigation systems. Follow all directions, special instructions and precautions about chemigation in the **Spraying Instructions** section of this label.

#### **Use Rates**

Preplant, Preemergence and Layby Applications

Soil Texture	Conventional or Minimal Tillage No-till**	
Coarse	1.0 to 2.0* pts/A (0.48 – 0.95 lb ai/A)	2.0 pts/A (0.95 lb ai/A)
Medium	2.0 pts/A (0.95 lb ai/A)	3.0 pts/A (1.43 lbs ai/A)
Fine 3.0 pts/A (1.43 lbs ai/A) 4.0 pts/A (1.9 lbs ai/A)		
*DO NOT exceed 1.6 pts/A (0.76 lb ai/A) on coarse-textured soils in California.		
** <b>DO NOT</b> use on soils with more than 3% organic matter.		

# Postemergence Applications of Pendi H2O Alone or in Tank Mix with Roundup PowerMAX® herbicide, or Roundup WeatherMAX® herbicide, or Liberty® herbicide

Soil Texture	Conventional, Minimal Tillage, or No Tillage	
Coarse	1.0 to 2.0* pts/A (0.48 – 0.95 lb ai/A)	
Medium	1.5 to 2.0 pts/A (0.71 – 0.95 lb ai/A)	
Fine	2.0 pts/A (0.95 lb ai/A)	

#### Restrictions

- DO NOT apply postemergence or in no-till cotton in California.
- **DO NOT** exceed the highest seasonal rate per acre for any given soil type.
- DO NOT exceed 2.0 pints per acre (0.95 lb ai/A) when applied postemergence to cotton for any given soil type.
- Preharvest Interval (PHI) is **60 days** between the last application and harvest.
- In treated cotton fields, forage may be fed to or grazed by livestock.
- **DO NOT** exceed the maximum cumulative seasonal rate of 4.2 pints per acre (2 lbs ai/A) for combined preplant/preemergence and postemergence applications.

#### **EDIBLE BEANS**

Dry (Navy, Great Northern, Red Kidney, Black, Turtle, Cranberry, Small White Type, Guar), Lima, Snap, Chickpeas (Garbanzo Beans), Southern Peas (Cowpeas), and Sweet Lupins

Application Methods: Apply by ground or air.

Use Methods, Timings and Use Rates

Pendi H2O may only be applied

- (fall) preplant surface or preplant incorporated in dry beans, lima beans, snap beans, and Southern peas (cowpeas).

- (fall) preplant surface or preplant incorporated or (spring) preplant surface in chickpeas (garbanzo beans).
- (fall) preplant surface or preplant incorporated or preemergence in sweet lupins.

Fall Applications. For use only in Idaho, Minnesota, Montana, North Dakota, Oregon, South Dakota, Washington and Wyoming). Apply Pendi H2O preplant surface or preplant incorporated (rainfall, irrigation or mechanically) in late fall prior to planting edible beans (chickpeas [garbanzo beans], dry beans [including navy, great northern, red kidney, black turtle, cranberry, small white type], lima beans, snap beans, Southern peas [cowpeas], and sweet lupins) the following spring. Apply Pendi H2O in the late fall when soil temperatures are 45° F or below but before the ground freezes.

**DO NOT** apply when the air temperature is below 45° F.

Rainfall or irrigation is required for incorporation and activation. Unpredictable weed control can be expected because factors such as length of time between application and planting as well as uncontrollable weather factors will determine herbicide activity and longevity.

# Use Rates for Fall Applications<sup>1</sup>

Soil Texture	Broadcast Rate <3% Organic Matter	Broadcast Rate >3% Organic Matter
Coarse	2.0 pts/A (0.95 lb ai/A)	2.0 pts/A (0.95 lb ai/A)
Medium	2.5 pts/A (1.19 lbs ai/A)	3.0 pts/A (1.43 lbs ai/A)
Fine	3.0 pts/A (1.43 lbs ai/A)	3.0 pts/A (1.43 lbs ai/A)
<sup>1</sup> Use limited to certain states. Follow state-specific instructions and/or restrictions.		

**Preplant Incorporated.** Apply up to 60 days prior to planting and incorporate.

**Preemergence.** Apply only to sweet lupins at planting or up to 2 days after planting. Apply to a seedbed that is firm and free of clods.

**Use Rates for Preplant Incorporated and Preemergence Applications** 

Call Tarritoria	Couthorn States	Norther	n States <sup>1</sup>
Soil Texture	se Southern States <sup>1</sup>	<3% Organic	Matter >3%
Coarse	1.5 pts/A (0.71 lb ai/A)	2.0 pts/A (0.95 lb ai/A)	2.0 pts/A (0.95 lb ai/A)
Medium	2.0 pts/A (0.95 lb ai/A)	2.5 pts/A (1.19 lbs ai/A)	3.0 pts/A (1.43 lbs ai/A)
Fine	3.0 pts/A (1.43 lbs ai/A)	3.0 pts/A (1.43 lbs ai/A)	3.0 pts/A (1.43 lbs. ai/A)
<sup>1</sup> See Use Area for map of specific states.			

# **State-specific Instructions**

#### Idaho, Montana, North Dakota, Oregon, and Washington

Apply **Pendi H2O** to chickpeas grown in no-tillage and/or minimum tillage systems in Idaho, Montana, North Dakota, Oregon and Washington. Preplant surface applications must be made within 30 days of planting. **DO NOT** exceed, 1.5 (0.71 lb ai/A), 2.0 (0.95 lb ai/A), and 3.0 pints (1.43 lbs ai/A) per acre in coarse, medium and fine textured soils, respectively. When planting, ensure that the seed furrow is fully closed because conditions that allow the seed furrow to inadequately close and/or allow **Pendi H2O** to contact the seed may result in crop injury. Certain unfavorable environmental conditions, including cool temperatures, excessive moisture after application, and wet and/or compacted soil conditions, may result in delayed emergence and stunting with **Pendi H2O** use in chickpeas. Adequate rainfall or irrigation after application prior to weed seedling germination will provide the most effective weed control. Herbicide performance from surface applications may be decreased compared to soil incorporated applications.

# Idaho, Oregon, Washington

Apply **Pendi H2O** postplant preemergence only to chickpeas grown in conventional tillage systems in Idaho, Oregon, and Washington. Application must be made within 2 days of planting. Do not exceed 1.5 pints (0.71 lb ai/A) per acre. Apply to a firm seedbed free of clods. Soil conditions that cause poor seed furrow closure and coverage may result in delayed emergence and stunting of the crop. Under certain environmental conditions, including cool temperatures, excessive moisture after application and wet soil conditions may result in delayed emergence and stunting with **Pendi H2O** use in chickpeas. Adequate rainfall or irrigation after application prior to weed seedling germination will provide the most effective weed control.

# Colorado, Idaho, Kansas, Montana, Nebraska, New Mexico, Oregon, Washington, and Wyoming

Apply **Pendi H2O** by ground as a postplant preemergence treatment to dry beans grown under sprinkler irrigation in Colorado, Idaho, Kansas, Montana, Nebraska, New Mexico, Oregon, Washington, and Wyoming. Dry beans must have a minimum planting depth of 2 inches. Prior to applying **Pendi H2O** to dry beans, check with local seed company or seed supplier for sensitive varieties and to verify the selectivity of **Pendi H2O** on the specific dry bean variety to be treated. **Pendi H2O** applications made postplant preemergence to dry beans must be immediately followed by 0.50 to 0.75 inch water from overhead irrigation/rainfall. **Pendi H2O** application must be made within 1 to 4 days of planting and up to, but not to exceed, 2.0 pints (0.95 lb ai/A) per acre. Apply to a firm seedbed free of clods. Soil conditions that cause poor seed furrow closure and coverage may result in delayed emergence and stunting of the crop. **DO NOT** apply as a chemigation application. **DO NOT** apply **Pendi H2O** in tank mix with products containing flumioxazin or halosulfuron as a preemergence application to dry beans due to unacceptable crop response. Under certain environmental conditions including cool temperatures, excessive moisture after application and wet soil conditions may result in crop injury, delayed emergence, and/or stunting with **Pendi H2O** use in dry beans. Adequate rainfall or irrigation after application prior to weed seedling germination will provide the most effective weed control.

# **Restrictions**

- DO NOT feed lupin hay and forage or graze livestock in treated lupin fields.
- **DO NOT** apply more than once per cropping season.
- **DO NOT** apply in any type of irrigation system.

# **FALLOW**

**Application Methods:** Apply by ground, air, or chemigation.

# **Use Methods, Timings and Use Rates**

Apply **Pendi H2O** to fallow ground following crop harvest as a planned residual treatment to control labeled broadleaf and grass weeds as they germinate.

Apply as a broadcast spray at rates up to, but not to exceed, **3.0 pints** (**1.43 lb ai/A**) **per acre**. Emerged weeds will not be controlled by this treatment. **Pendi H2O** must be applied with a labeled tank mix partner (i.e. glyphosate) to provide control of emerged weeds.

**DO NOT** make more than one application of during a single fallow period.

**DO NOT** apply to fallow ground after July 1 if treated fields are to be planted the following spring to crops not labeled for preplant or preplant incorporated applications of **Pendi H2O**.

There must be at least a 4-month interval between a **Pendi H2O** fallow application and the rotational planting of any fall-seeded cereal crop. Otherwise, specific rotational crop intervals must be adhered to between a fallow application of **Pendi H2O** and the planting of the following crop (see **Crop Rotation Restrictions** in the **Restrictions and Precautions** section of this label).

#### **State-specific Instructions**

In Colorado, Idaho, Kansas, Montana, Nebraska, Nevada, Oregon, Utah, Washington, and Wyoming, apply as a broadcast spray at rates up to, but not to exceed, 3.2 pints (3 lbs ai/A) per acre of Pendi H2O.

# **FARMSTEADS**

Apply as a broadcast spray at **2.1 quarts** (**2 lbs ai/A**) **per acre** for short-term (2 to 4 months) or at **4.2 quarts** (**4 lbs ai/A**) **per acre** for long- term (6 to 8 months) preemergence control of labeled broadleaf and grass weeds as they germinate on farmstead nonagricultural areas including barnyards, lanes, driveways, machinery or implement yards, windbreaks, and nonagricultural fencerows or ditchbanks.

# FORAGE GRASSES (COOL-SEASON)

**Application Methods:** Apply by air, ground, or chemigation or on dry bulk fertilizer.

# Use Methods, Timings and Use Rates

**For use in established Perennial Cool-Season Grasses** including bentgrass, bluegrass (Kentucky), Bromegrass, fescue (fine, tall), orchardgrass, perennial ryegrass, timothy, and wheatgrass grown for forage, green chop, silage, hay production, and/or grown in pastures, rangeland, or Federal Conservation Reserve Program (CRP) land for livestock grazing.

Apply **Pendi H2O** to these and similar established (having 6 or more tillers per plant) grasses. Make application before target weeds germinate in the fall after the last cutting/mowing/grazing; in winter; in the spring; or in-season between cuttings.

Make a uniform broadcast application at 1.1 to 4.2 quarts (1-4 lbs ai/A) per acre in a single application or sequentially at least 30 days apart. Do not apply more than 4.2 quarts (4 lbs ai/A) of **Pendi H2O** per acre per year. Use the higher rate when weed pressure is high or when a longer duration of residual weed control is required.

**Pendi H2O** may cause temporary injury to cool-season forage grass stands. If application is made in the following situations the risk of crop injury may be increased: in periods of cold temperatures that limit normal crop growth; in extended cold temperatures that initiate winter dormancy; disease, extremely cold weather, drought, extensive frost heaving, salinity, low pH, or high pH may also weaken stands and make the crop more susceptible to herbicidal injury.

# Mixed Stands of Established Cool-Season Forage Grasses and Alfalfa

Apply **Pendi H2O** to mixed stands of established alfalfa (defined as alfalfa planted in the fall or spring which has gone through a first cutting/mowing) and cool-season forage grasses. Apply in the fall after the last cutting/mowing/grazing, in winter, in the spring before weed germination, or in-season between cuttings.

# **Chemigation Application**

**Pendi H2O** may be applied through sprinkler irrigation systems. Follow all directions, special instructions, and precautions in the Spraying Instructions section of the **Pendi H2O** label.

# Tank Mixes

**Pendi H2O** may be applied in a sequential use program with other herbicides labeled for this use, or applied as a tank mix with other registered herbicides that control emerged weeds. Applications of postemergence herbicides may cause crop injury, so proposed tank mixes must be tested on a small portion of the target crop to determine if damage is likely. Always perform a mixing test to check compatibility of **Pendi H2O** with potential tank mix partners and fertilizers. Follow all precautions and restrictions on the labels of all products applied in combination with **Pendi H2O**, and always follow the most restrictive label.

Physical incompatibility, reduced weed control, or crop injury may result from mixing Pendi H2O with other pesticides, additives, or fertilizers.

**Preharvest Interval (PHI)**: there is no PHI for **Pendi H2O**-treated grass forage, green chop, silage, hay, pasture, or rangeland.

#### Restrictions

- **DO NOT** apply more than 4.2 quarts (4 lbs ai/A) of **Pendi H2O** per acre per year.
- **DO NOT** apply if surface water is present in the field.
- **DO NOT** graze or harvest mixed stand alfalfa/cool season forage grasses for forage and hay until 14 or more days after application.
- DO NOT apply Pendi H2O to mixed stands of cool-season forage grasses with other forage legumes besides alfalfa.

# FORAGE GRASSES (WARM-SEASON)

and other perennial warm-season grasses

**Application Methods:** Apply by air, ground, chemigation, or on dry bulk fertilizer.

# Use Methods, Timings and Use Rates

Apply only to established (defined as planted in the fall or spring which has gone through a first cutting/mowing) **Bermudagrass and other perennial warm-season grasses.** 

Apply **Pendi H2O** in fields of Bermudagrass (and other perennial warm-season grasses including Bahiagrass, buffalograss, switchgrass, and others) grown for forage or hay production and/or grown in pastures or rangeland for livestock grazing.

Apply prior to target weed germination in the dormant season (when grasses are not actively growing in fall; during winter dormancy period; or in early spring before greenup) or in-season between cuttings. DO NOT apply to Bermudagrass or other perennial warm-season grasses after greenup in the spring before the first cutting.

Uniformly apply at a broadcast rate of **1.1 to 4.2 quarts** (**1 – 4 lbs ai/A**) **per acre** in a single application. As an option, apply in two split applications, with 1/2 the seasonal application rate applied in the dormant season, followed by the other 1/2 the seasonal application rate applied in-season between cuttings. Use the higher application rate where more dense infestations of targeted annual grasses and annual broadleaf weeds are anticipated, or when a longer duration of residual weed control is desired.

Apply **Pendi H2O** in a sequential use program or as a tank mix with other registered herbicides that control emerged weeds.

**Pendi H2O** may cause temporary injury to Bermudagrass and other perennial warm-season grass stands. Disease, extremely cold weather, drought, extensive frost heaving, low or high pH, or salinity may weaken stands and make the crop more susceptible to herbicidal injury.

# **Chemigation Applications**

Apply **Pendi H2O** through sprinkler irrigation systems. Follow all directions, special instructions and precautions about chemigation in **Spraying Instructions** section of this label.

#### **Tank Mixes**

Apply **Pendi H2O** as a tank mix with other herbicides labeled for use in Bermudagrass and other perennial warmseason grass fields. Axill Solutions, LLC recommends testing tank mixes on a small portion of the target crop to determine if damage is likely to occur.

Physical incompatibility, reduced weed control, or crop injury may result from mixing Pendi H2O with other pesticides, additives, or fertilizers.

Applications of postemergence herbicides may cause crop injury, such as stunting or chlorosis of Bermudagrass and other perennial warm-season grasses. Consult with your local distributor or dealer regarding local tank mix options. Always perform a mixing test to check the compatibility of **Pendi H2O** with all potential tank mix partners and fertilizers. Follow all precautions and restrictions on the labels of all products applied in combination with **Pendi H2O**. Always follow the most restrictive label.

# Preharvest Interval (PHI):

There is no PHI for **Pendi H2O**-treated grass forage, hay, or for livestock grazing.

#### Restrictions

- DO NOT apply more than 4.2 quarts (4 lbs ai/A) per acre per year from any combination of applications.
- **DO NOT** apply if surface water is present in the field.
- Not for use on sod production fields of Bermudagrass or other cool-season grasses.

# FRUITING VEGETABLES

African eggplant, Bell pepper, Bush tomato, Cocona, Currant tomato, Eggplant, Garden huckleberry, Goji berry, Groundcherry, Martynia, Naranjilla, Nonbell pepper, Okra, Pea eggplant, Pepino, Roselle, Scarlet eggplant, Sunberry, Tomatillo, Tomato, Tree tomato

Application Methods: Apply by ground or air.

# **Use Methods, Timings and Use Rates**

Uniformly apply by ground or air as a broadcast preplant incorporated application or as a broadcast preplant surface application prior to transplanting fruiting vegetables.

Uniformly apply only by ground as a postdirected application to transplanted or established direct-seeded fruiting vegetables.

**DO NOT** apply prior to direct-seeded fruiting vegetables.

**DO NOT** apply postemergence over the top of or to foliage of fruiting vegetables because severe injury may occur. Apply **Pendi H2O** as a post-directed spray on the soil at the base of the plant, beneath plants, and between rows. Avoid direct contact with foliage or stems. Be sure roots of transplants are established. Following the post-directed spray and when sufficient rainfall or irrigation does not occur to activate the herbicide, mechanically incorporate at the time of blocking and thinning or at layby. Apply **Pendi H2O** prior to weed germination. Emerged weeds will not be controlled by this treatment.

Use **Pendi H2O** in fruiting vegetables transplanted to raised beds. Prior to transplanting, apply **Pendi H2O** preplant non-incorporated in a band to the top of the pressed bed just prior to laying plastic. After transplanting, apply **Pendi H2O** in a band to the previously untreated row middles between the transplanted beds. For either of the banded applications to the bed or row middles, **DO NOT** overlap sprays and exceed the maximum broadcast use rate per acre for the given soil texture.

**Pendi H2O** applied at 2.0 to 3.0 pints (0.95 – 1.43 lbs ai/A) per acre may aid in the control or suppression of the following weeds when used as part of a comprehensive weed management program: black nightshade, hairy nightshade.

#### **Use Rates**

Soil Texture	Broadcast Rate	
Coarse	1.0 to 1.5 pts/A (0.48 – 0.71 lb ai/A)	
Medium	1.5 to 2.0 pts/A (0.71 – 0.95 lb ai/A)	
Fine	1.5 to 3.0 pts/A (0.71 – 1.43 lbs ai/A)	

#### Restrictions

- **DO NOT** apply more than 3.0 pints (1.43 lbs ai/A) per acre per season.
- DO NOT apply within 21 days before harvest of tomatoes.
- DO NOT apply within 70 days before harvest of all other fruiting vegetables.
- DO NOT plant lettuce within 6 months after application if the rows were covered with plastic.

#### **Precautions**

Avoid root contact with Pendi H2O-treated soil when placing transplants into furrow or hole or injury may
occur.

# **GRAIN SORGHUM**

**Application Methods:** Apply by ground or air.

Use Methods, Timings and Use Rates

Apply **Pendi H2O** as a postemergence incorporated (CULTI-SPRAY) application in grain sorghum grown in all states.

Apply **Pendi H2O** early postemergence in grain sorghum grown in states east of the Mississippi River and in Arizona, Arkansas, eastern Texas, Louisiana, and the Missouri bootheel.

**Additional Weeds Controlled.** In addition to the weeds listed in **Table 2**, **Pendi H2O** as a CULTI- SPRAY application will control the following weeds in grain sorghum: wild proso millet and shattercane.

**CULTI-SPRAY.** Apply from the 4-inch growth stage to as late as the last cultivation (layby) of grain sorghum. See specific directions for (CULTI-SPRAY) application under **Application Instructions**.

**Early Postemergence.** For use only in states east of the Mississippi River plus Arizona, Arkansas, eastern Texas, Louisiana, and the Missouri bootheel.

Prepare the seedbed so it is firm and free of clods and trash. Use only where adequate tillage is practiced to provide good seed coverage. Plant grain sorghum at least 1-1/2 inches deep to ensure good seed coverage.

#### **Use Rates**

**CULTI-SPRAY Application** 

Soil Texture	Southern States <sup>1</sup>	Northern States <sup>1</sup>
Coarse	1.5 pts/A (0.71 lb ai/A)	2.0 pts/A (0.95 lb ai/A)
Medium	2.0 pts/A (0.95 lb ai/A)	3.0 pts/A (1.43 lbs ai/A)
Fine 3.0 pts/A (1.43 lbs ai/A) 3.0 pts/A (1.43 lbs ai/A)		
<sup>1</sup> See <b>Use Area</b> for map of specific states.		

**Early Postemergence Application** 

Soil Texture	Pendi H2O
Coarse	DO NOT USE
Medium, Fine	2.0 pts/A (0.95 lb ai/A)

#### Restrictions

- DO NOT apply in grain sorghum preplant incorporated or preemergence because serious crop injury can result.
- **DO NOT** apply in grain sorghum more than once per crop season.
- DO NOT apply as a CULTI-SPRAY treatment in grain sorghum planted in double-row beds.
- **DO NOT** replant grain sorghum if crop loss occurs.
- DO NOT apply in liquid fertilizer.
- Livestock can graze or be fed forage from **Pendi H2O**-treated grain sorghum fields after 21 days following application.

#### **GREEN ONIONS**

Chive (fresh leaves), Chive, Chinese (fresh leaves), Elegans hosta, Fritillaria (leaves), Kurrat, Lady's leek, Leek, Leek (wild), Onion (Beltsville bunching, fresh, green, macrostem, tree (tops), Welsh (tops)), Shallot (fresh leaves)

**Application Methods:** Apply preemergence, split application, or postemergence by ground, air, or chemigation.

#### Use Methods, Timings and Use Rates

Uniformly apply 2.0 pints (0.95 lb ai/A)per acre as a broadcast spray to the soil surface as preemergence spray or as a postemergence spray to the crop at the 2 to 3 trueleaf stage at least 30 days before harvest. If **Pendi H2O** is to be applied sequentially as both a preemergence and postemergence spray, the preemergence spray must be applied 30 days prior to the postemergence spray. Onion seed must be fully covered by soil at planting. Injury may occur if onion seed is exposed to **Pendi H2O**.

# **Chemigation Applications**

Apply **Pendi H2O** through sprinkler irrigation systems. Apply at 2 to 3 true-leaf stage at least 30 days before harvest. **DO NOT** irrigate in excess of 0.5 inch of water. Follow all directions, special instructions and precautions about chemigation in the **Spraying Instructions** section of this label.

#### **Restrictions**

- Only apply preemergence to green onions grown on muck soils or on mineral soils with greater than 3% organic matter.
- **DO NOT** apply more than 2.0 pints (0.95 lb ai/A) per acre per application.
- **DO NOT** apply more than 4.0 pints (1.9 lbs ai/A) per acre per season.
- **DO NOT** apply within 30 days before harvest.
- DO NOT feed forage or graze livestock in treated fields.
- Not for use in California unless accompanied by supplemental labeling.

# **HOPS**

**Application Method:** Apply by ground only.

# **Use Methods, Timings and Use Rates**

Apply **Pendi H2O** before target weeds germinate, when hops are in the dormant or vegetative stages of growth. Make application as a broadcast or banded treatment (including postemergence-directed) using ground equipment, applying directly to the ground beneath the vines and/or in areas between rows. Apply uniformly at a broadcast rate of 1.1 to 4.2 quarts (1 to 4 lbs ai/A) per acre in either a single application or sequential applications with at least 30 days between applications. **Pendi H2O** may be applied with other herbicides registered on hops for control of emerged weeds as a sequential use program or as a tank mix. It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions and precautionary language of the products in the mixture (for example, first aid from one product, spray drift management from another).

#### Restrictions

- **DO NOT** apply to hops by air or through any type of irrigation system.
- **DO NOT** apply over the top of vines with leaves or cones. Spray contacting hop foliage or cones may cause injury.
- **DO NOT** apply more than 4.2 quarts (4 lbs ai/A) of **Pendi H2O** per acre per year to hops from any combination of applications.
- Preharvest Interval (PHI) for hop cones is 90 days.
- **DO NOT** use in California except as directed in supplemental labeling

#### LEAF LETTUCE

Application Methods: Apply by ground or air.

#### **Use Methods, Timings and Use Rates**

With a single application, uniformly apply up to **2.1 pints** (**1 lb ai/A**) **per acre** as a broadcast foliar spray to either direct-seeded or transplanted leaf lettuce from the-3-leaf stage until 20 days before harvest.

#### Restrictions

- DO NOT apply preplant or pretransplant or preemergence (direct-seeded) to leaf lettuce because severe injury may occur.
- DO NOT foliar apply to leaf lettuce before the 3-leaf growth stage because severe injury may occur.
- **DO NOT** apply more than 2.1 pints (1 lb ai/A) per acre per season.
- **DO NOT** apply within 20 days before leaf harvest.
- DO NOT use on leaf lettuce in California.

#### LEAFY BRASSICA GREENS

Broccoli raab, Chinese cabbage (bok choy), Collards, Kale, Mizuna, Mustard greens, Mustard spinach, Rape greens, Turnip greens (cultivars or varieties grown for leaves only)

**Application Methods:** Apply by ground or air.

#### Use Methods, Timings and Use Rates

With a single application, uniformly apply up to 2.1 pints (1 lb ai/A) per acre as a broadcast foliar spray to either direct-seeded or transplanted leafy Brassica greens at the 4-leaf to 5-leaf stage.

#### Restrictions

- **DO NOT** apply preplant, pretransplant. or preemergence (direct-seeded) to leafy Brassica greens because severe injury may occur.
- DO NOT foliar apply to leafy Brassica greens before the 4-leaf growth stage because severe injury may occur.
- DO NOT apply to turnip greens varieties grown for roots or to dual-purpose varieties grown for roots and tops.
- DO NOT use treated turnip greens roots for any feed or food purpose.
- **DO NOT** apply more than 2.1 pints (1 lb ai/A) per acre per season.
- DO NOT apply within 21 days before leafy greens are harvested.

#### LENTILS AND PEAS

#### English, Dry, Garden, Dwarf, Green, Pigeon, and Edible Pod

**Application Methods:** Apply by ground or air.

Use Methods, Timings and Use Rates

Apply **Pendi H2O** preplant surface or preplant incorporated for weed control in lentils and peas.

# Preplant Surface and Preplant Incorporated (fall applications in Idaho, Minnesota, Montana, North Dakota, Oregon, South Dakota, Washington, and Wyoming)

Apply **Pendi H2O** and incorporate (rainfall, irrigation or mechanically) in late fall prior to planting lentils or peas the following spring. Apply in the late fall when soil temperatures are 45° F or below but before the ground freezes.

**DO NOT** apply when the air temperature is below 45° F.

Rainfall or irrigation is required for incorporation and activation. Unpredictable weed control can be expected because factors such as length of time between application and planting as well as uncontrollable weather factors will determine herbicide activity and longevity.

**Preplant Incorporated.** Apply **Pendi H2O** 60 days prior to planting up to immediately before planting. After application, rotary hoeing and shallow cultivation/tillage can be practiced without reducing weed control. Avoid tillage that will bring untreated soil to the surface.

#### **Use Rates**

Preplant Surface and Preplant Incorporated Application<sup>1</sup>

Soil Texture	Broadcast Rate
Coarse	1.5 pts/A (0.71 lb ai/A)
Medium	2.0 pts/A (0.95 lb ai/A)
Fine	3.0 pts/A (1.43 lb ai/A)
<sup>1</sup> Follow seasonal restrictions and/or state-specific instructions.	

# **State-specific Instructions**

#### Idaho, Montana, North Dakota, Oregon, and Washington

Apply **Pendi H2O** to lentils or peas (dry peas only) grown in no-tillage and/or minimum tillage systems in Idaho, Montana, North Dakota, Oregon and Washington. Preplant surface applications must be made within 30 days of planting. When planting, ensure that the seed furrow is fully closed because conditions that allow the seed furrow to inadequately close and/or allow **Pendi H2O** to contact the seed may result in crop injury. Certain unfavorable environmental conditions, including cool temperatures, excessive moisture after application, and wet and/or compacted soil conditions, may result in delayed emergence and stunting with **Pendi H2O** use in lentils or peas. Adequate rainfall or irrigation after application prior to weed seedling germination will provide the most effective weed control. Herbicide performance from surface applications may be decreased compared to soil incorporated applications.

# Idaho, Oregon, Washington

Apply **Pendi H2O** postplant preemergence only to lentils or all peas grown in conventional tillage systems in **Idaho**, **Oregon** and **Washington**. Application must be made within 2 days of planting. Apply up to but not to exceed 1.5 pints (0.71 lb ai/A) per acre. Apply to a firm seedbed free of clods. Soil conditions that cause poor seed furrow closure and coverage may result in delayed emergence and stunting of the crop. Under certain environmental conditions including cool temperatures, excessive moisture after application and wet soil conditions may result in delayed emergence and stunting with **Pendi H2O** use in peas or lentils. Adequate rainfall or irrigation after application prior to weed seedling germination will provide the most effective weed control.

#### Restrictions

- DO NOT use in California.
- DO NOT apply preemergence in peas unless otherwise noted in state-specific instructions.
- **DO NOT** apply more than once per cropping season.
- DO NOT apply to peas, lentils, pea or lentil forage, pea silage, pea hay, or pea straw grown for livestock feed.
- **DO NOT** apply in any type of irrigation system.

# **Crop Rotation**

• Any crop registered for a preplant incorporated application of **Pendi H2O** can be double cropped after peas.

#### **MELONS**

#### Cantaloupe, Citron melon, Muskmelon, Watermelon

**Application Methods:** Apply only by ground.

#### **Use Methods, Timings and Use Rates**

Apply **Pendi H2O** sequentially in melon production. Make the initial application of up to **2.1 pints** (**1 lb ai/A**) **per acre** as a shielded application to row middles (either before melon transplanting or before a seeded crop has emerged) or between rows covered with plastic mulch (prior to holes being punched in plastic for melon planting). Make a second shielded application at up to **2.1 pints** (**1 lb ai/A**) **per acre** to row middles or between plastic mulch prior to melon vine running. The interval between the sequential applications must be at least 21 days. Avoid spray contact with melon foliage or running vines because crop injury could occur.

#### **Restrictions**

- **DO NOT** apply more than 2.1 pints (1 lb ai/A) per acre in a single application or more than 4.2 pints (2 lbs ai/A) per acre per season.
- DO NOT apply within 35 days before melon harvest.
- DO NOT feed forage or graze livestock in treated fields.
- Not for use in California except as directed by supplemental labeling.

# **MINT**

#### **Peppermint and Spearmint**

Application Methods: Apply by ground or air.

#### **Use Methods, Timings and Use Rates**

Make a single broadcast preemergence application of **Pendi H2O** to dormant established mint before weed germination at 1.5 pints to 4.0 pints (0.71 - 1.9 lbs ai/A) per acre, depending on soil texture (see following chart). After a **Pendi H2O** application, some temporary crop injury may be observed early in the growing season as mint breaks dormancy and begins to grow.

**Pendi H2O** will not cause crop injury when applied according to the label under normal growing conditions. Non-uniform application may result in injury to crops, poor stands, or soil residues; conversely, uneven application may reduce weed control. Diseases, cold weather, excessive moisture, deep planting, low or high pH, salinity, or drought may weaken seedlings and plants and make them more susceptible to herbicidal damage.

#### **Use Rates**

Soil Texture	Broadcast Rate
Coarse	1.5 to 2.0 pts/A (0.71 – 0.95 lbs ai/A)
Medium	2.0 to 4.0 pts/A (0.95 – 1.9 lbs ai/A)
Fine	2.0 to 4.0 pts/A (0.95 – 1.9 lbs ai/A)

#### Restrictions

- **DO NOT** apply to baby mint in the first year of growth and establishment.
- **DO NOT** apply more than 4.0 pints (1.9 lbs ai/A) per acre per season.
- DO NOT apply within 90 days before harvest.
- DO NOT allow livestock to graze on treated spent hay or feed treated spent hay to livestock.
- DO NOT apply this product on mint through any type of irrigation system.

#### **Precautions**

- Application to mint that is near dormancy break can result in crop injury. Risk of crop injury increases the closer application is to mint dormancy break.
- Mint stands that have been weakened by age, disease, cold weather, excessive moisture, or other factors are more susceptible to herbicidal damage.

# DRY BULBS – Garlic, Onions, Shallots

Daylily, bulb; Fritillaria, bulb; garlic, bulb; garlic, great-headed, bulb; Garlic, serpent, bulb; Lily, bulb; Onion, bulb; Onion, Chinese, bulb; Onion, pearl; Onion, potato, bulb; Shallot, bulb

**Application Methods:** Apply by ground, air or chemigation.

#### **Use Methods, Timings and Use Rates**

Apply to direct-seeded and transplanted dry bulb onions and dry bulb shallots.

#### **Mineral Soils**

#### **Mineral Soil Use Rates**

Soil Texture	Broadcast Rate
Coarse	1.5pts/A (0.71 lb ai/A)
Medium	2.0 pts/A (0.95 lb ai/A)
Fine	3.2 pts/A (3 lb ai/A)

Preemergence. Apply after garlic planting but before crop and weeds emerge.

**Postemergence**. Apply when garlic is in the 1<sup>st</sup> to 5<sup>th</sup> true leaf growth stage.

**Split application**. Apply in garlic at both preemergence and postemergence timings.

# **Restrictions (Mineral Soils)**

- DO NOT mechanically incorporate except as specified for use on dry bulb onions in Colorado and the Texas High Plains.
- DO NOT exceed 3.2 pints (3 lbs ai/A) per acre per growing season (except Idaho, Oregon, and Washington).
- DO NOT apply within 60 days before harvest in California and within 45 days before harvest in all other states.
- DO NOT feed or graze these crops.
- **DO NOT** apply preemergence through the loop stage if heavy rains are expected or severe crop injury may result. If irrigating immediately after **Pendi H2O** application at the preemergence through loop stage, **DO NOT** irrigate in excess of 1/2 inch of water.

#### **State-specific Instructions**

#### In All States Except California

Apply as a broadcast treatment when dry bulb onions or dry bulb shallots have 2 to 9 true leaves.

# Additional Use in Colorado, Kansas, and Nebraska

Apply **Pendi H2O** sequentially in seeded dry bulb onions. Apply first application at loop stage. Apply sequential application early postemergence (2nd to 9th true-leaf stage). **DO NOT** exceed the maximum labeled rate for a given soil texture. **DO NOT** apply **Pendi H2O** at loop stage through the 9th true-leaf stage if heavy rains are expected, or severe crop injury may result.

#### Additional Use in Colorado and the High Plains of Texas

For transplanted dry bulb onions only, apply and shallow incorporate (less than 2 inches deep) **Pendi H2O** into preformed beds prior to transplanting.

#### Additional Use in Idaho, Oregon, and Washington

Apply as a broadcast treatment when dry bulb onions or dry bulb shallots are between the flag leaf to 9th true-leaf stage. Use **Pendi H2O** at 3.0 to 4.0 pints (1.43 - 1.9 lbs ai/A) per acre for dodder control on medium-textured and fine-textured soils. **DO NOT** apply using chemigation at the dodder control rate.

Apply **Pendi H2O** in the fall or spring to the furrow area of land bedded in the fall in preparation for planting seed of dry bulb onions the following spring. Apply as a banded application at rates based on appropriate soil texture. Band width is 1/2 the width of the row spacing. Keep **Pendi H2O** away from the area where dry bulb onion seed will be planted.

Harrow off tops of beds following **Pendi H2O** furrow applications prior to planting dry bulb onions.

For selective weed control in the onion row, apply as a banded postemergence application to flag-leaf dry bulb onions at the labeled rates based on soil texture. Apply **Pendi H2O** only once to the furrow area and once to the dry bulb onion row as a postemergence application.

#### Additional Use in Michigan

For mineral soils containing >10% organic matter, follow the directions for muck soils (see following).

#### In California

Only apply **Pendi H2O** as a single application when dry bulb onions or dry bulb shallots have 2 to 6 true leaves.

# Additional Use in Oregon and Washington - Dry Bulb Onions - Preemergence Weed Control

Apply **Pendi H2O** to control annual grass and small seeded broadleaf weeds to uniformly planted (1-inch deep; furrow must be thoroughly covered with soil) dry bulb onions. **Failure to plant dry bulb onions a minimum of 1 inch deep in the soil increases the potential for injury.** Apply in a single application after germination of the onion seed but prior to emergence (delayed preemergence) when 75% of the radicles have developed on the onion seedlings.

Determine the radicle emergence by digging onion seedlings at random locations in the field and note radicle elongation. Apply **Pendi H2O** in 10 or more gallons of water per acre using ground equipment at the rates specified in the table below. Adequate incorporation by rainfall or irrigation will ensure effective control of weeds. Do not apply more than 0.25 inch of initial overhead irritation following delayed preemergence application of **Pendi H2O** on dry bulb onions. **Pendi H2O** must be applied to clean-tilled soil for effective weed control. A tank mix with a burndown herbicide controls emerged weeds prior to onion emergence.

The risk of crop injury is greater on coarse-textured soils (>90% sand) than with medium- or fine-texture soils. Potential injury may occur due to variability within soil type. Using higher rates of **Pendi H2O** within soil types may increase the risk of crop injury. If adverse weather results in loss of onions, any crop registered for **Pendi H2O** preplant incorporated use can be replanted the same year into **Pendi H2O**-treated soil with no adverse effects. Rework the soil deeper than 2 inches if replanting is necessary.

**Pendi H2O** may be applied sequentially in dry bulb seeded onions. Make the first application using delayed preemergence directions. Make sequential applications of **Pendi H2O** early postemergence (up to 9<sup>th</sup> true-leaf stage).

#### **Restrictions for this use:**

- **DO NOT** exceed 3.0 pints (1.43 lb ai/A) per acre per crop.
- DO NOT exceed the maximum labeled rate for a given soil texture.
- **DO NOT** apply through any type of irrigation system or by air.
- DO NOT apply preplant incorporated or preplant.
- DO NOT apply within 45 days of harvest.
- DO NOT feed treated dry bulb onions to livestock or allow livestock to graze in treated areas.

#### **Use Rates**

Soil Texture	Delayed Preemergence Broadcast Rate (OR and WA only)
Coarse	1.0 to 2.0 pts/A (0.48 – 0.95 lb ai/A)
Medium	1.5 to 2.5 pts/A (0.71 – 1.19 lbs ai/A)
Fine	1.5 to 3.0 pts/A (0.71 – 1.43 lbs ai/A)

Additional Use in California – Dry Bulb Onions– Preemergence in Direct-Seeded Onions at the Loop Stage Apply Pendi H2O to control annual grass and small seeded broadleaf weeds at 1.0-1.5 pints (0.48 – 0.71 lb ai/A) per acre after onion seedlings have emerged and are at the loop stage of growth. Select the use rate according to the soil texture as shown in the table below. Apply Pendi H2O in 10 or more gallons of water per acre using ground equipment. Adequate incorporation by rainfall or irrigation will ensure effective control of weeds. Do not apply more than 0.25 inch of initial overhead irritation following application of Pendi H2O in direct seeded onions at the loop stage. Pendi H2O must be applied to clean-tilled soil for effective weed control.

#### Use Rates

OSC NAICS	
Soil Texture	Preemergence in Direct-Seeded Onions At the Loop Stage (CA only)
Coarse	1.0 to 1.5 pts/A (0.48 – 0.71 lb ai/A)
Medium	1.0 to 1.5 pts/A (0.48 – 0.71 lb ai/A)
Fine	1.5 pts/A (0.71 lb ai/A)

The risk of crop injury is greater on coarse-textured soils (>90% sand) than with medium- or fine-texture soils. Potential injury may occur due to variability within soil type. Using higher rates of **Pendi H2O** within soil types may increase the risk of crop injury. If adverse weather results in loss of onions, any crop registered for **Pendi H2O** preplant incorporated use can be replanted the same year into **Pendi H2O**-treated soil with no adverse effects. Rework the soil deeper than 2 inches if replanting is necessary.

**Pendi H2O** may be applied sequentially in dry bulb seeded onions. Make the first application after seedling emergence at the loop stage of growth. Make sequential applications of **Pendi H2O** early postemergence (up to 6<sup>th</sup> true leaf stage).

#### **Restrictions for California Dry Bulb Onions:**

- **DO NOT** exceed 3.2 pints (3 lbs ai/A) per acre in onions per crop per year.
- **DO NOT** exceed the maximum labeled rate for a given soil texture.
- DO NOT apply preemergence in direct seeded onions at the loop stage through any type of irrigation system or by air
- DO NOT apply preplant incorporated or preplant.
- DO NOT apply to muck soils.
- DO NOT apply to green (bunching) onions or leeks.
- **DO NOT** apply within 60 days of harvest.
- DO NOT feed treated dry bulb onions to livestock or allow livestock to graze in treated areas.

#### **Muck Soils**

**Pendi H2O** may be applied sequentially on in dry bulb onions or dry bulb shallots on muck soils, only once preemergence and only twice postemergence, as follows:

#### **Muck Soil Use Rates**

Application Timing and Growth Stage	Rate
Preemergence through Loop Stage	4.0 pts/A (1.9 lbs ai/A)
Early Postemergence (2nd to 6th true-leaf stage)	4.0 pts/A (1.9 lbs ai/A)
Late Postemergence (6th to 9th true-leaf stage)	4.0 pts/A (1.9 lbs ai/A)

#### **Restrictions (Muck Soils)**

- DO NOT apply to muck soils in California.
- DO NOT apply within 45 days before harvest.
- DO NOT feed or graze these crops.
- **DO NOT** apply more than 12.6 pints (6 lbs ai/A) per acre per growing season on muck soils. To maximize crop safety, ensure good soil coverage during planting or transplanting and delay preemergence applications to the loop stage, if possible.
- **DO NOT** apply preemergence through the loop stage if heavy rains are expected or severe crop injury may result. If irrigating immediately after **Pendi H2O** application at the preemergence through loop stage, **DO NOT** irrigate in excess of 1/2 inch of water.
- **DO NOT** plant sugar beets, red beets, spinach, winter wheat, or winter barley as rotational crops on muck soils for 12 months from the time of last application if more than 3.2 pints (3 lbs ai/A) per acre of **Pendi H2O** is applied to the onion crop.
- If loss of onion crop occurs, **DO NOT** replant any crop other than onions in muck soil during the same cropping year and **DO NOT** work the soil deeper than 2 inches.

#### **Chemigation Applications**

Apply **Pendi H2O** through sprinkler irrigation systems. Apply between the 2nd and 9th true-leaf stage (2nd to 6th true-leaf stage **in California**) unless otherwise specified below. **DO NOT** irrigate in excess of 1/2 inch of water. Follow all directions, special instructions and precautions about chemigation in the **Spraying Instructions** section of this label.

# **PEANUTS**

Application Methods: Apply by ground, air, or chemigation.

#### Use Methods, Timings and Use Rates

Apply **Pendi H2O** preplant incorporated in peanuts and applied preemergent to peanuts grown under overhead irrigation.

**Preplant Incorporated.** Apply up to 60 days prior to planting and incorporate.

**Preemergence.** Apply at planting or up to 2 days after planting and before crop emergence. To prevent decreased crop pegging, adequate incorporation must be achieved by applying a minimum of 0.75 inch of overhead irrigation or rainfall within 48 hours of application.

#### **Chemigation Applications**

Apply **Pendi H2O** through sprinkler irrigation systems. Follow all directions, special instructions and precautions about chemigation in the **Spraying Instructions** section of this label.

#### Use Rates

Region	Rate
New Mexico, Oklahoma, and Texas	1.0 to 2.0 pts/A (0.48 – 0.95 lb ai/A)
Other peanut growing states*	2.0 pts/A (0.95 lb ai/A)
* For heavy weed infestations, especially of Texas panicum, up to 3.2 pts/A (3 lbs ai/A) of <b>Pendi H2O</b> can be used in Alabama, Florida or Georgia.	

<sup>•</sup> DO NOT use in California.

#### PERENNIAL GRASSES GROWN FOR SEED PRODUCTION

**Application Methods:** Apply by ground, air or chemigation.

# Use Methods, Timings and Use Rates

Apply prior to target weed germination. Uniformly apply at a broadcast rate of 2.1 to 4.2 quarts (2-4 lbs ai/A) per acre in a single application. As an option, apply **Pendi H2O** in two split applications, with 1/2 the seasonal application rate applied in the fall or winter followed by the other 1/2 the seasonal application rate applied in the spring. **DO NOT** exceed a cumulative total of 4.2 quarts (4 lbs ai/A) per acre in any one crop season.

In both warm-season and cool-season perennial grasses, use the higher application rate where more dense infestations of targeted annual grasses, annual broadleaf, or volunteer grass seedlings are anticipated, or when a longer duration of residual weed control is desired. Excess grass straw and crop residue from the previous harvest must be evenly spread or removed by such methods as crew cutting, propane flaming, or open field burning (when local regulations allow) prior to **Pendi H2O** application, or reduced weed control may result.

Apply **Pendi H2O** in a sequential use program or as a tank mix with other registered herbicides that control emerged weeds.

**Pendi H2O** may cause temporary injury to perennial grass stands. Applications made in periods of cold temperatures that temporarily limit normal crop growth or in extended cold temperature periods that initiate winter dormancy in grass crops may result in crop injury. Diseases, extremely cold weather, drought, extensive frost heaving, low or high pH, or salinity may weaken stands and make them more susceptible to herbicidal damage.

**Additional Weeds Controlled. Pendi H2O** applied prior to weed germination will control annual bluegrass, volunteer fescue, and volunteer ryegrass in addition to the weeds listed in **Table 2. Weeds Controlled**.

Apply **Pendi H2O** in the following perennial grasses grown for seed production:

#### • Warm-season perennial grasses

Apply to established (defined as planted in the fall or spring which has gone through a first cutting/mowing) warm-season perennial grasses, such as Bermudagrass, switchgrass, and others. Apply to postharvest grass during the fall or during winter dormancy or after the first seed harvest/cutting. **DO NOT** apply to warm-season perennial grasses after greenup in the spring prior to the first seed harvest/cutting.

# Cool-season perennial grasses

Apply to established (6 or more tillers per plant) cool-season perennial grasses, such as Kentucky bluegrass, tall fescue, orchardgrass, perennial ryegrass, fine fescue, and others. Apply to postharvest grass during regrowth at the beginning of significant fall rains or in spring prior to germination of targeted weeds.

# **Chemigation Applications**

Apply **Pendi H2O** through sprinkler irrigation systems following all directions, special instructions, and precautions about chemigation in **Spraying Instructions** section of this label.

#### Tank Mixes

**Pendi H2O** may be tank mixed with Outlook® herbicide or with other herbicides labeled for use in perennial grasses grown for seed. It is recommended to test tank mixes on a small portion of the target crop to determine if damage is likely to occur.

Physical incompatibility, reduced weed control, or crop injury may result from mixing Pendi H2O with other pesticides, additives, or fertilizers.

Applications of postemergence herbicides may cause crop injury. Always perform a mixing test to check the compatibility of **Pendi H2O** with all potential tank mix partners. Follow all precautions and restrictions on the labels of all products applied in combination with **Pendi H2O**. Always follow the most restrictive label.

#### Restrictions

- **DO NOT** apply if surface water is present in the field.
- DO NOT exceed a cumulative total of 4.2 quarts (4 lbs ai/A) per acre in any one crop season.
- There is no preharvest interval for grass forage or hay, or for livestock grazing after application.
- The preharvest interval for seed of warm-season and cool-season grasses is 90 days.
- From treated fields of both warm-season and cool-season perennial grasses, **DO NOT** harvest seed within 90 days after application.
- Not for use in California unless accompanied by supplemental labeling.

#### **Precautions**

- Some stunting and chlorosis of the perennial grasses may occur with postemergence applications.
- Applications made after the perennial grasses exceed 6 inches in height may result in poor weed control due to possible reduced spray coverage to the soil.
- The grass straw remaining after seed harvest of both warm-season and cool-season perennial grasses may be used as livestock bedding, and/or grazed by or fed to livestock. The grower must notify the seed processor that there is no pesticide tolerance on grass seed screenings; therefore, it cannot be used in livestock feed.

#### **POTATOES**

**Application Methods:** Apply by ground, air, or chemigation.

# Use Methods, Timings and Use Rates

Apply **Pendi H2O** preemergence, preemergence incorporated, or early postemergence in potatoes.

**Additional Weeds Controlled.** In addition to the weeds listed in **Table 2**, **Pendi H2O** will control stinging nettle in potatoes.

Preemergence. Apply after planting, but before potatoes and weeds emerge, or after dragoff.

**Preemergence Incorporated.** Apply and incorporate after planting but before potatoes and weeds emerge. Where dragoff is practiced, apply and incorporate before, at, or after dragoff, but before potatoes and weeds emerge. Care must be taken so that incorporation equipment does not damage seed pieces or elongating sprouts.

**Early Postemergence.** Apply from crop emergence to the 6-inch stage of growth. **DO NOT** apply postemergence if potatoes are under stress from cold/wet or hot/dry conditions or crop injury may occur.

#### **Chemigation Applications**

Apply **Pendi H2O** through sprinkler irrigation systems. Apply preemergence after planting, after dragoff, or early postemergence through sprinkler irrigation systems. Follow all directions, special instructions and precautions about chemigation in the **Spraying Instructions** section of this label.

# **Use Rates**

Soil Texture	<3% Organic Matter >3%	
Coarse	1.5 pts/A (0.71 lb ai/A)	1.5 pts/A (0.71 lb ai/A)
Medium	2.0 pts/A (0.95 lb ai/A)	3.0 pts/A (1.43 lbs ai/A)
Fine	3.0 pts/A (1.43 lbs ai/A)	3.0 pts/A (1.43 lbs ai/A)

# Restrictions

- DO NOT apply to sweet potatoes or yams.
- **DO NOT** apply preplant.
- **DO NOT** make more than one application per season.

#### **Precautions**

 Application of on White Rose variety potatoes during or followed by cool and/or wet weather conditions may result in crop injury.

#### **RICE**

**Application Methods:** Apply by ground or air.

#### Use Methods, Timings and Use Rates

Apply **Pendi H2O** as a delayed preemergence application in drilled dry-seeded rice or as an early postemergence application in dry-seeded rice. Treatments include conventional, reduced or minimum tillage, and no- till (stale seedbed) rice. Prepare the seedbed to be firm and free of clods and to allow for good seed coverage. The use of a planter

under conditions that **DO NOT** allow good soil coverage of the rice seed can result in reduced stand or stunting if **Pendi H2O** contacts germinating rice seed. Use **Pendi H2O** applied postemergence in California water-seeded rice as a component of a comprehensive weed management program.

**Additional Weeds Controlled.** In addition to the weeds listed in **Table 2**, **Pendi H2O** will control the following weeds in rice: junglerice and sprangletop.

**Delayed Preemergence.** Apply alone or with tank mix partner for delayed preemergence weed control in grain-drilled, dry-seeded rice. Apply alone or in tank mixture to levees after the levees are pulled and planted. Exposed seeds that come in contact with **Pendi H2O** may be injured. Apply only when growing conditions favor vigorous rice growth. Ensure that the seedbed has adequate moisture for seed germination. **Not for use in grain- drilled, dry-seeded rice in California.** 

Uniformly apply the specified rate of **Pendi H2O** after rice planting and before rice emergence (spiking) and weed germination. Apply after the rice seed has absorbed water and germinated and after the soil has been previously sealed over the seed by at least 1 inch of rainfall or by irrigation (flush). If the soil has not been sealed by rain or flush, apply when 80 percent of germinated seeds have a primary root (radicle) or shoot at least 1/2-inch long. If there is insufficient moisture, flush before **Pendi H2O** application to supply moisture for root (radicle) initiation and for vigorous rice and weed growth.

If applied to soil prior to these conditions, or to cracked soil, stand reduction or stunting of rice may occur. Under some conditions, use of gibberellic acid-treated seed, heavy rainfall after application, or flushing after application may result in herbicide injury to rice. Rice can overcome moderate injury with appropriate cultural practices.

Because of the residual activity of **Pendi H2O**, this treatment may be applied if rice is too small to maintain a flood on the field for weed control. However, proper water management practices must be followed for normal rice growth and activity of **Pendi H2O**.

**Early Postemergence.** Apply as a tank mix partner. Base applications on weed and crop size guidelines of the tank mix partner. **DO NOT** apply to fields with standing water. If necessary, fields may be flushed prior to treatment to produce vigorous rice and weed growth. Because soil and weeds must be completely exposed to spray coverage, flood water must not be on the field at the time of application. Cloddy soil, standing water (puddles) at the time of application, or cracks in the soil that form after application may result in reduced weed control. Because of residual activity of **Pendi H2O**, this treatment may be applied if rice is too small to maintain a flood on the field for weed control. However, proper water management practices must be followed for normal rice growth and activity of **Pendi H2O**.

**Postemergence** (California water-seeded rice only). Apply alone or tank mixed with a postemergence herbicide after water-seeded rice has reached the 4-leaf to 6-leaf stage (spike plus 3 to 5 true leaves). Applications made prior to the 4-leaf rice stage may result in crop injury.

Water-seeded rice must also be well-rooted/pegged (i.e. standing erect after the flood is removed) prior to application. **DO NOT** apply to rice that is leaning over and/or laying flat to the ground following flood removal since this is characteristic of a poorly established root system. Rice roots must be below the **Pendi H2O**-treated soil zone. Injury, stunting, and/or stand reduction can occur if **Pendi H2O** contacts the rice roots.

Fields must be completely drained and free of standing water (moist/saturated soil) prior to application. If the soil is saturated at the time of application, allow the soil surface to dry prior to restoring the permanent flood. **Pendi H2O** requires alternate wetting/drying cycles to be activated. Weed control will be reduced if the soil surface is not allowed to dry out prior to restoration of the permanent flood. Resume normal water management practices following permanent flood restoration.

**Pendi H2O** does not control weeds postemergence; therefore, **Pendi H2O** must be tank mixed with a postemergence herbicide to control emerged weeds at the time of application.

**Pendi H2O** will aid in the control or suppression of the following weeds when used as part of a comprehensive weed management program:

Barnyardgrass, early and late watergrass (including bio-types resistant to other herbicide modes of action, e.g. rice mimic), sprangletop, smallflower umbrella sedge\*, redstem\*

\*Suppression only

In California water-seeded rice, make applications of **Pendi H2O** with either aerial or ground application equipment. For aerial application, apply the specified rate in 5 gallons to 10 gallons of water per acre. If applied as a tank mixture with another herbicide, make sure proper gallonage per acre per label directions (i.e. 10 to 15 with propanil) is used to ensure adequate coverage. To minimize drift, **DO NOT** apply during periods of wind greater than 10 mph, or when wind conditions favor drifting, or if there is a temperature inversion. It is recommended that a flagman or an automatic mechanical flagging unit on the aircraft be used to avoid overlapping and possible crop injury.

For ground equipment, apply the specified rate in 10 gallons to 20 gallons of water per acre. If **Pendi H2O** is applied as a tank mixture with another herbicide, make sure proper gallonage per acre per label directions (i.e. 20 to 30 for propanil) is used to ensure adequate coverage. Use a properly calibrated low-pressure (20 psi to 40 psi) sprayer equipped with appropriate nozzles to achieve uniform spray distribution and minimize drift. Keep the bypass line on or near the bottom of the tank to minimize foaming. Nozzle screens must be no finer than 50 mesh. **DO NOT** apply **Pendi H2O** during periods of gusty winds or when wind velocity is greater than 20 mph.

**Postemergence Tank Mixtures:** To control emerged weeds at application, apply **Pendi H2O** as a tank mix with one of the following postemergence herbicides:

Clincher® herbicide Grandstand® herbicide Granite® SC herbicide Stam® herbicide SuperWham! herbicide Regiment® herbicide Strada® WG herbicide Whip® 360 herbicide

When using tank mixtures with **Pendi H2O**, always read the companion product label(s) and follow all precautions and restrictions. Always follow the most restrictive label.

Observe all restrictions regarding propanil-restricted zones.

#### **Restrictions (for water-seeded rice)**

- **DO NOT** apply prior to the 4-leaf rice stage (spike plus 3 true leaves) or to rice that is not well-rooted/pegged. The rice must be standing erect after the flood is removed and prior to application.
- DO NOT apply to fields with standing water.
- **DO NOT** apply through any type of irrigation system.
- DO NOT apply in liquid fertilizer.
- DO NOT spray target crop within 60 feet of sensitive crops (crops not listed on the **Pendi H2O** label).
- **DO NOT** spray target crop within 60 feet of crops labeled for **Pendi H2O** applications where the method of application, rate, or timing of spray application is prohibited.
- **DO NOT** exceed the maximum rate for any soil type in one season.
- **DO NOT** use water containing **Pendi H2O** residues from rice cultivation to irrigate food or feed crops that are not registered for use with **Pendi H2O**.

In case of a crop failure due to weather conditions or disease following treatment with **Pendi H2O** alone or in a tank mixture, only drilled dry-seeded rice may be immediately replanted; however, the grower assumes all risks and consequences associated with replanting of rice because there is the potential for stand reduction or stunting. Axill Solutions, LLC recommends a 10% increase in seeding rate. Replant seed below the herbicide layer because reduced stand or stunting may occur if **Pendi H2O** contacts germinating rice seed. **DO NOT** replant gibberellic acid-treated seed. **DO NOT** reapply **Pendi H2O** alone or in a tank mixture.

**DO NOT** apply to stressed rice. Stress factors include cold or hot temperature extremes, excessive moisture or drought, problem soils, poor field drainage, or deep water after application.

#### **Use Rates**

# **Delayed Preemergence Applications**

Soil Texture	Rate
Sands, loamy sands	DO NOT USE
Sandy loams	1.5 pts/A (0.71 lb ai/A)
Loams, silt loams, silts, sandy clay loams	2.0 pts/A (0.95 lb ai/A)
Silty clay loams, clay loams, sandy clays, silty clays, clays	2.0 pts/A (0.95 lb ai/A)

**Early Postemergence Application** 

Soil Texture	Rate
Coarse	1.5 pts/A (0.71 lb ai/A)
Medium	2.0 pts/A (0.95 lb ai/A)
Fine	2.0 pts/A (0.95 lb ai/A)

Postemergence in California Water-seeded Rice

Soil Texture	Rate
Coarse	1.5 pts/A (0.71 lb ai/A)
Medium	2.0 pts/A (0.95 lb ai/A)
Fine	2.0 pts/A (0.95 lb ai/A)

#### Restrictions

- **DO NOT** apply through any type of irrigation system.
- DO NOT apply in liquid fertilizer.
- DO NOT apply to rice fields if fields are used for fish production, especially catfish farming.
- Pendi H2O may be applied to rice fields used for crayfish production.
- **DO NOT** use water containing **Pendi H2O** residues from rice cultivation to irrigate food or feed crops that are not registered for use with **Pendi H2O**.
- In case of a crop failure due to weather conditions or disease following treatment with **Pendi H2O** alone or in a tank mixture, only drilled dry-seeded rice may be immediately replanted; however, the grower assumes all risks and consequences associated with replanting of rice because there is the potential for stand reduction or stunting. Axill Solutions, LLC recommends a 10% increase in seeding rate. Replant seed below the herbicide layer because reduced stand or stunting may occur if **Pendi H2O** contacts germinating rice seed. **DO NOT** replant with gibberellic acid-treated seed. **DO NOT** reapply **Pendi H2O** alone or in a tank mixture.
- **DO NOT** apply and then flush for germination.
- **DO NOT** apply to stressed rice. Stress factors include cold or hot temperature extremes, excessive moisture or drought, problem soils, poor field drainage, or deep water after application.
- DO NOT apply early preemergence nor preplant incorporated as severe rice injury is possible.

#### **SAFFLOWER**

**Application Methods:** Apply by ground, air, or on dry bulk fertilizer (only fall and preplant incorporated applications).

# Use Methods, Timings and Use Rates

Plant safflower 1 ½ inches to 2 inches deep and completely cover with soil. In California, plant safflower deep enough to completely cover with soil.

# **Use Methods and Timings**

**Preplant Incorporated**. Apply within 60 days of planting and incorporate.

**Preplant Incorporated, Fall Application in Minnesota, Montana, North Dakota, and South Dakota.** Apply **Pendi H20** and immediately incorporate during tillage operations in the late fall to target winter annual weeds before planting safflower the following spring. Apply when soil temperatures are 45°F or below but before the ground freezes. DO NOT apply when the air temperature is below 45°F.

Before planting safflower in the spring, shallow incorporate treated fields at least once, at an angle to the last tillage operation.

**Fall Application in California.** Apply **Pendi H20**and immediately incorporate during tillage operations in the late fall to target winter annual weeds before planting safflower the following spring. Before planting safflower in the spring, shallow incorporate treated fields at least once, at an angle to the last tillage operation.

**Preemergence**. Apply at planting or up to 2 days after planting.

Especially in cases where safflower is growing in stress situations such as compacted soils, preemergence application of **Pendi H20** may increase the chance of crop injury. Preemergence application may also provide decreased herbicide performance compared to preplant incorporated application. If conditions are dry with limited precipitation likely, or unseasonable cool temperatures are forecast for the time after planting, apply before planting and mechanically incorporate with tillage. **Pendi H20** may be applied preemergence in conventional- tillage safflower.

In California, preemergence application must be followed by irrigation or rainfall to establish a crop stand.

**No-till Safflower** (not for this use in California). Apply **Pendi H20** at 3.0 pts/A (1.43 lb ai/A) preplant (up to 30 days before planting) to preemergence (immediately after planting).

#### **Use Rates**

# **Preplant Incorporated or Preemergence**

	Southern	Northern	1 States <sup>1</sup>
Soil Texture	States <sup>1</sup>	<3% organic matter >3%	
		Pts	/A
Coarse	1.5 (0.71 lb ai/A)	2.0 (0.95 lb ai/A)	2.0 (0.95 lb ai/A)
Medium	2.0 (0.95 lb ai/A)	2.5 1.19 lbs ai/A)	3.0 (1.43 lbs ai/A)
Fine	3.0 (1.43 lbs ai/A)	3.0 (1.43 lbs ai/A)	3.0 (1.43 lbs ai/A)

<sup>&</sup>lt;sup>1</sup>See Use Area for map of specific states

# Preplant Incorporated (Fall application)<sup>1</sup>

Soil Texture	<3% organic matter>3%	
	(pts/A)	
Coarse	2.5 (1.19 lbs ai/A)	2.5 (1.19 lbs ai/A)
Medium	3.0 (1.43 lbs ai/A)	3.5 (1.66 lbs ai/A)
Fine	3.5 (1.66 lbs ai/A)	3.5 (1.66 lbs ai/A)

<sup>&</sup>lt;sup>1</sup>For use in Minnesota, Montana, North Dakota, and South Dakota only.

#### Restrictions for all tillage types

- **DO NOT** feed forage or graze livestock in treated fields.
- **DO NOT** use on no-till safflower in California.
- **DO NOT** apply **Pendi H20** postemergence.
- **DO NOT** exceed the highest rate per acre for any given soil type.

#### **SOYBEANS**

**Application Methods:** Apply by ground or air.

#### **Use Methods, Timings and Use Rates**

Apply **Pendi H20** in conventional, minimum, or no-till as a fall surface, fall incorporated, preplant surface, preplant incorporated, or preemergence application in soybeans.

**Additional Weeds Controlled.** In addition to the weeds listed in **Table 2**, **Pendi H20** will control or reduce competition from the following weeds in soybeans: itchgrass and red rice. For specific rates for red rice and itchgrass management, see table at end of this section.

**Fall Applied. Pendi H20** may be surface applied or incorporated in the fall, after fall harvest and prior to ground freeze in states north of I-80 and the entire states of Illinois, Indiana, Iowa, Kansas, Kentucky, Missouri, Nebraska, Ohio, Oklahoma, and Texas. Fall applications will not provide season-long weed control.

**Preplant Surface.** Apply up to 15 days prior to planting. **Pendi H20** may be applied up to 45 days prior to planting when used in a tank mix or applied sequentially with Canopy herbicide and Tricor herbicide. Apply **Pendi H20** tank mixes and sequential programs as specified under the tank mix section.

**Preplant Incorporated.** Apply up to 60 days prior to planting and incorporate.

**Preemergence.** Apply at planting or up to 2 days after planting. Apply to a firm seedbed free of clods. **DO NOT** make applications preemergence north of Interstate 80, except in the states of Indiana, Michigan and Ohio, or as specified in Axill Solutions, LLC supplemental labeling.

#### **Use Rates**

# Fall Surface, Fall Incorporated, Preplant Surface, or Preplant Incorporated

Soil Texture	<3% Organic Matter >3%	
Coarse	1.5 pts/A (0.71 lb ai/A)	2.0 pts/A (0.95 lb ai/A)
Medium	2.5* pts/A (1.19 lbs ai/A)	3.0 pts/A (1.43 lbs ai/A)
Fine**	3.0 pts/A (1.43 lbs ai/A)	3.0 pts/A (1.43 lbs ai/A)
*DO NOT exceed 2.1 pts (l lb ai/A) for Southern states; see Use Area for map of specific states.  **For heavy clay soils, apply Pendi H2O at the broadcast rate of 3.2 pints (3 lbs ai/A) per acre.		

#### **Preemergence Applications**

Soil Texture	<3% Organic Matter >3%	
Coarse	1.5 pts/A (0.71 lb ai/A)	1.5 pts/A (0.71 lb ai/A)
Medium	2.0 pts/A (0.95 lb ai/A)	2.0 pts/A (0.95 lb ai/A)
Fine	2.0 pts/A (0.95 lb ai/A)	2.5 pts/A (1.19 lbs ai/A)

#### Preplant Incorporated Applications for Red Rice Control and Itchgrass Suppression

Soil Texture	Up to 3% Organic Matter <sup>1</sup>	
Coarse	3.0 pts/A (1.43 lbs ai/A)	
Medium	3.0 pts/A (1.43 lbs ai/A)	
Fine	4.0 pts/A (1.9 lbs ai/A)	
<sup>1</sup> <b>DO NOT</b> use on soils with more than 3% organic matter.		

# Restrictions

- DO NOT use in soybeans in California.
- Livestock can graze or be fed forage from treated soybean fields.
- DO NOT apply within 85 days before harvest.
- **DO NOT** exceed one application per crop season at the highest rate per acre for any given soil type and application method.

# STRAWBERRIES AND OTHER LOW-GROWING BERRIES

Bearberry, Bilberry, Blueberry (lowbush), Cloudberry, Cranberry, Lingonberry, Muntries, Partridgeberry, Strawberry

**Application Methods:** Apply by ground, air, or chemigation.

# **Use Methods, Timings and Use Rates**

Stunting, reduced growth, or reduction in daughter plants may occur with this use.

Uniformly apply 1.5 to 3.0 pints (0.71 – 1.43 lbs ai/A) per acre as a broadcast spray to the soil surface at pre-transplant time or post-transplant time (must be within 7 days of transplanting of rootstock in the Pacific Northwest). However, in geographies where irrigation is used daily (frequently) after transplanting, make the application just before the end of the watering regime to maximize the weed control benefits of **Pendi H20**. Extended periods of irrigation may reduce the residual control provided by **Pendi H20**.

Applications to row middles between the beds are allowed. **DO NOT** apply post-transplant if new foliage from rootstock is exposed to spray area. Make a second application of 1.5 to 3.0 pints (0.71–1.43 lbs ai/A) per acre of **Pendi H20** in a band to the soil between crop rows (or between the plastic beds) 35 days before harvest, but **DO NOT CONCENTRATE THE RATE** per acre into the treated area, and **DO NOT** allow spray to contact strawberry plants. The second application rate is based on per unit of treated area.

Apply **Pendi H20** to strawberries or other low-growing berries in fall or winter dormancy. Uniformly apply 1.5 to 3.0 pints (0.71 - 1.43 lbs ai/A) per acre as a broadcast spray to the soil surface prior to onset of new seasonal growth from strawberry crowns. **DO NOT** apply if new seasonal growth (leaves) has emerged or is exposed.

Apply **Pendi H20** to perennial strawberries or other low-growing berries after renovation. Uniformly apply 1.5 to 3.0 pints  $(0.71-1.43 \, \text{lbs ai/A})$  per acre as a broadcast spray to the soil surface after renovation (mowing or other defoliation operation) when no foliage is exposed but prior to onset of new seasonal growth from crowns. **DO NOT** apply if new seasonal growth (leaves) has emerged or leaves are exposed.

#### **Chemigation Applications**

Apply **Pendi H20** through sprinkler irrigation systems. Follow all directions, special instructions and precautions about chemigation in the Spraying Instructions section of this label. **DO NOT** allow **Pendi H20**-treated irrigation water to contact strawberry or other low-growing berry plants.

#### **Use Rates**

Soil Texture	Broadcast Rate	
Coarse	1.5 pts/A (0.71 lbs ai/A)	
Medium	2.0 to 2.5 pts/A (0.95 – 1.19 lbs ai/A)	
Fine	2.5 to 3.0 pts/A (1.19 – 1.43 lbs ai/A)	

#### Restrictions

- **DO NOT** apply more than 3.0 pints (1.43 lbs ai/A) per acre per application.
- **DO NOT** apply more than 6.0 pints (2.85 lbs ai/A) per acre per season.
- DO NOT apply within 35 days before harvest.
- DO NOT feed forage or graze livestock in treated fields.
- DO NOT plant lettuce within 6 months after application if the strawberry beds were covered with plastic.

# Additional Use in Oregon and Washington in First Year Non-bearing Strawberries

Uniformly broadcast apply **Pendi H20** preemergence prior to transplanting strawberries. **DO NOT** harvest for food or feed any portion of the strawberry plant within 1 year (365 days) of **Pendi H20** application. **DO NOT** apply **Pendi H20** through any type of irrigation system or by air.

**Broadcast Use Rate in First Year Non-bearing Strawberries** 

Soil Texture	<3% Organic Matter >3%	
Coarse	1.5 to 2.0 pts/A (0.71 – 0.95 lb ai/A)	2.0 to 3.0 pts/A (0.95 – 1.43 lbs ai/A)
Medium	2.0 to 2.5 pts/A (0.95 – 1.19 lbs ai/A)	2.0 to 3.0 pts/A (0.95 – 1.43 lbs ai/A)
Fine	2.0 to 3.0 pts/A (0.95 – 1.43 lbs ai/A)	2.5 to 3.5 pts/A (1.19 – 1.66 lbs ai/A)

# **SUGARCANE**

**Application Methods.** Apply by ground or air.

# **Use Methods, Timings and Use Rates**

Apply **Pendi H20** preemergence through layby to plant or ration sugarcane. Although there may be adequate crop tolerance for postemergence applications at layby, the spray must be directed under the sugarcane canopy to obtain effective weed control.

#### Use Rates

Use Area	Broadcast Rate
All states, except Hawaii	4.2 to 6.2 pts/A (2 – 2.95 lbs ai/A)
Muck soils (Florida only)	4.2 to 8.4 pts/A (2 – 4 lbs ai/A)
Hawaii	4.2 to 8.4 pts/A (2 – 4 lbs ai/A)

<sup>&</sup>lt;sup>1</sup> Use the high rate if: heavy clay soils; no mechanical incorporation is planned; heavy weed populations are anticipated; itchgrass infestation is anticipated; no shaving is planned.

Additional Use as Fallow Ground Application only in Louisiana. Apply prior to weed germination for control of annual grasses such as itchgrass (Raoulgrass), seedling Johnsongrass and Panicum spp. in preplant fallow ground

sugarcane. If necessary, control weeds that have emerged prior to application of **Pendi H20** with postemergence herbicides and/or mechanical cultivation.

After cultivation and forming the beds in the spring, apply at 2.6 quarts (2.47 lbs ai/A) per acre using ground equipment. Ensure that the sugarcane beds are free of trash or clods at the time of application. If sufficient rainfall (1/2 to 3/4 inch) has not occurred within 7 days of application, perform a shallow incorporation (1 to 2 inches) with an additional pass of a Lilliston-type Lely **Roterra**<sup>TM</sup> cultivator set to cut 2 or 3 inches deep. A minimum interval of 60 days between **Pendi H20** application and planting of sugarcane is required or crop injury may occur. After planting, apply to sugarcane preemergence through layby, but **DO NOT** exceed 12.5 pints (5.94 lbs ai/A) per acre of **Pendi H20** during one growing season.

Non-cropped Water Drainage Areas Application only in Louisiana. Apply Pendi H20 prior to weed germination to non-irrigated, non-cropped water drainage areas (ditchbanks) adjacent to sugarcane fields. If necessary, control weeds that have emerged prior to application of Pendi H20 with postemergence herbicides and/or mechanical cultivation.

Apply at 2.6 to 3.5 quarts (2.47 – 3.33 lbs ai/A) per acre using ground equipment. **DO NOT** apply below the high water mark or when water is present in the drainage area (ditchbank). **DO NOT** exceed 12.5 pints (5.94 lbs ai/A) per acre of **Pendi H20** during one growing season.

#### Restrictions

- **DO NOT** exceed 12.5 pints (5.94 lbs ai/A) per acre in one growing season.
- **DO NOT** use less than 11 gallons of water as a carrier when applying for weed control.
- DO NOT make aerial applications at close-in because complete and uniform coverage cannot be obtained.
- **DO NOT** apply through any type of irrigation system.
- DO NOT apply within 90 days before harvest.
- DO NOT graze treated fields or feed treated forage or fodder to livestock.

#### **Precautions**

Ratoon sugarcane must be lightly shaved in early spring to remove the old stubble before incorporation over the line
of sugarcane is possible. Carefully adjust equipment to incorporate without causing excessive damage to emerging
shoots.

#### SUNFLOWERS AND OTHER OILSEED CROPS

Calendula, Castor oil plant, Chinese tallowtree, Euphorbia, Evening primrose, Jojoba, Niger seed, rose hip, Stokes aster, Sunflower, Tallowwood, Tea oil plant, Vernonia

**Application Methods:** Apply by ground or air.

#### **Use Methods, Timings and Use Rates**

Apply **Pendi H20** preplant incorporated in all states. Fall preplant incorporated applications may be made in Minnesota, North Dakota, and South Dakota only. Apply **Pendi H20** preemergence in conventional tillage sunflowers or other oilseeds, **except in the state of California**.

Plant sunflowers or other oilseeds 1-1/2 inches to 2 inches deep and completely cover with soil.

**Preplant Incorporated (Spring).** Apply up to 60 days prior to planting and incorporate.

**Preplant Incorporated (Fall Applications in North Dakota, South Dakota and Minnesota).** Apply and immediately incorporate in late fall prior to planting the following spring. Apply in the late fall when soil temperatures are 45° F or below but before the ground freezes. **DO NOT** apply when the air temperature is below 45° F.

Prior to planting in the spring, make one shallow additional incorporation to fields treated with **Pendi H20**. Make the spring incorporation at an angle to the last tillage operation.

**Preemergence.** Apply at planting or up to 2 days after planting. Preemergence applications to sunflowers or other Group 20B oilseeds may increase the likelihood of crop injury, especially when plants are grown in stress situations, such as compacted soils. Decreased herbicide performance compared to preplant incorporated applications may also result from a preemergence application. If dry conditions with limited precipitation exist or unseasonably cool temperatures following planting are forecast, apply **Pendi H20** prior to planting and mechanically incorporate with tillage.

**No-till Sunflowers or other oilseeds.** Apply at 3.0 pints (1.43 lbs ai/A) per acre up to 30 days before planting (preplant) immediately after planting (preemergence). **DO NOT** use on no-till in California.

#### **Use Rates**

Preplant Incorporated (Spring) or Preemergence (Conventional Tillage)

Soil Texture	Southern States <sup>1</sup>	Norther	n States
Son Texture	<3% Organic Matter >3%		Matter >3%
Coarse	1.5 pts/A (0.71 lb ai/A)	2.0 pts/A (0.95 lb ai/A	2.0 pts/A(0.95 lb ai/A)
Medium	2.0 pts/A (0.95 lb ai/A)	2.5 pts/A 1.19 lbs ai/A)	3.0 pts/A (1.43 lbs ai/A)
Fine	3.0 pts/A (1.43 lbs ai/A)	3.0 pts/A (1.43 lbs ai/A)	3.0 pts/A (1.43 lbs ai/A)
<sup>1</sup> See <b>Use Area</b> for map of specific states.			

Preplant Incorporated (Fall) Application<sup>1</sup>

Soil Texture	<3% Organic	<3% Organic Matter >3%	
Coarse	2.5 pts/A (1.19 lbs ai/A)	2.5 pts/A (1.19 lbs ai/A)	
Medium	3.0 pts/A (1.43 lbs ai/A)	3.5 pts/A (1.66 lbs ai/A)	
Fine 3.0 pts/A (1.43 lbs ai/A) 3.5 pts/A (1.66 lbs ai/A)			
<sup>1</sup> For use in Minnesota, North Dakota and South Dakota only.			

# **Restrictions (All Tillage Types)**

- DO NOT apply postemergence.
- DO NOT feed forage or graze livestock in treated sunflower or other Group 20B oilseed fields.

#### **California Restrictions**

- **DO NOT** apply preemergence in conventional tillage sunflower or other oilseed crops.
- DO NOT apply in no-till sunflowers or other oilseed crops.

# **TOBACCO**

**Application Methods:** Apply with ground equipment only preplant incorporated, or as a layby application in transplanted tobacco.

# **Use Methods, Timings and Use Rates**

**Preplant Incorporated.** Apply with ground sprayer and incorporate up to 60 days prior to transplanting tobacco.

Applied according to directions and under normal growing conditions, **Pendi H20** will not harm transplanted tobacco. Under stress conditions for plant growth, such as cold/wet or hot/dry weather, **Pendi H20** can produce a temporary retardation of tobacco development.

**Layby.** Apply as a directed spray following the last normal cultivation (layby), usually 4 to 6 weeks after transplanting tobacco. Apply in a 16-inch to 24-inch band between the crop rows. Contact of the spray solution with tobacco plants may cause damage to the plant.

#### **Use Rates**

**Preplant Incorporated Application** 

Use Area	Soil Texture	Rate
Florida	Coarse	2.0 pts/A (0.95 lb ai/A)
Georgia	Medium	
Maryland North Carolina	sandy clay loams, loams	2.0 pts/A (0.95 lb ai/A)
South Carolina	silt loams, silts	2.5 pts/A (1.19 lbs ai/A)
Virginia	Fine	2.5 pts/A (1.19 lbs ai/A)
	Coarse	2.0 pts/A (0.95 lb ai/A)
Other states	Medium	3.0 pts/A (1.43 lbs ai/A)
	Fine	3.0 pts/A (1.43 lbs ai/A)

#### **Layby Application**

Soil Texture	Broadcast Rate
Coarse	1.5 pts/A (0.71 lb ai/A)
Medium	2.0 pts/A (0.95 lb ai/A)
Fine	2.0 pts/A (0.95 lb ai/A)

#### Restrictions

• DO NOT apply as a broadcast spray or contact may cause malformed tobacco leaves.

# **VEGETABLE SOYBEAN (EDAMAME)**

**Application Methods.** Apply only by ground.

#### **Use Methods, Timings and Use Rates**

Apply **Pendi H20** to edamame grown under conventional, minimum; or no-till systems.

**Preplant Surface.** Apply within 15 days of planting. **Pendi H20** may be applied within 45 days of planting when used in a tank mix or applied sequentially with postemergence-applied herbicides registered for use in edamame. **Preplant Incorporated**. Apply within 60 days of planting and incorporate.

**Preemergence**. Apply at planting or up to 2 days after planting. Apply to a firm seedbed, free of clods. **DO NOT** make applications of **Pendi H20** preemergence north of Interstate 80, except in states of Indiana, Michigan and Ohio.

#### Use Rates

**Preplant Surface or Preplant Incorporated** 

Soil Texture	<3% Organic Matter >3%		
Coarse	1.5 pts/A (0.71 lb ai/A)	2.0 pts/A (0.95 lb ai/A)	
Medium	2.5* pts/A (1.19 lbs ai/A)	3.0 pts/A (1.43 lbs ai/A)	
Fine**	3.0 pts/A (1.43 lbs ai/A)	3.0 pts/A (1.43 lbs ai/A)	
*DO NOT exceed 2.1 pts (l lb ai/A) for Southern states; see Use Area for map of specific states.  **For heavy clay soils, apply Pendi H2O at the broadcast rate of 3.2 pints (3 lbs ai/A) per acre.			

#### **Preemergence Applications**

Soil Texture	<3% Organic Matter >3%	
Coarse	1.5 pts/A (0.71 lb ai/A)	1.5 pts/A (0.71 lb ai/A)
Medium	2.0 pts/A (0.95 lb ai/A)	2.0 pts/A (0.95 lb ai/A)
Fine	2.0 pts/A (0.95 lb ai/A)	2.5 pts/A (1.19 lbs ai/A)

Livestock can graze or be fed forage from treated vegetable soybean (edamame) fields.

#### Restrictions

- DO NOT apply within 85 days of harvest.
- **DO NOT** exceed one application per crop season at the highest rate per acre for any given soil type and application method.
- DO NOT use in California.

#### WHEAT AND TRITICALE

**Application Methods:** Apply by ground, air or chemigation.

#### **Use Methods, Timings and Use Rates**

Apply **Pendi H20** preemergence, delayed preemergence, or postemergence for weed control in fall- seeded, winter-seeded, or spring-seeded wheat or triticale.

Apply to a seedbed which is firm and free of clods and trash. The seedbed **MUST** be prepared to ensure good seed coverage by the soil and seed to soil contact. Use high quality seed. When applications are intended to be made preemergence or delayed preemergence, plat seed at least 1 inch deep to avoid possible crop injury. Do not plant too

deep for proper germination. When application is intended to be made postemergence, plant seed at least 1/2-inch to 1-inch deep to avoid crop injury.

Uniformly apply preemergence, delayed preemergence (after seed germination), or as a postemergence treatment from the 1st-leaf stage of wheat or triticale until before the flag leaf is visible/emerged for weed control. Apply prior to weed germination. Emerged weeds will not be controlled by this treatment.

For control of established weeds, **Pendi H20** may be tank mixed with any postemergence herbicide registered for use in wheat or triticale. **Pendi H20** will provide residual control of the weeds listed in this label. Always perform a mixing test to check the compatibility of **Pendi H20** with all potential tank mix partners.

#### **Use Rates**

Soil Texture	Southern States <sup>1</sup>	Northern States <sup>1</sup>	
Coarse 1.5 to 2.0 pts/A (0.71 – 0.95 lb ai/A)		1.5 pts/A (0.71 lb ai/A)	
Medium	1.5 to 3.0 pts/A (0.71 – 1.43 lbs ai/A)	1.5 to 2.5 pts/A (0.71 – 1.19 lbs ai/A)	
Fine	2.0 to 3.0 pts/A (0.95 – 1.43 lbs ai/A)	2.0 to 3.0 pts/A (0.95 – 1.43 lbs ai/A)	
<sup>1</sup> See Use Area for map of specific states.			

In wheat stubble, **Pendi H20** may be applied in the fall, spring or early summer during the fallow period following wheat harvest as a planned residual treatment to control labeled broadleaf and grass weeds. **Pendi H20** must be applied with an adequate tank mix partner (i.e. glyphosate) to provide control of emerged weeds. There must be at least a 4-month interval between a **Pendi H20** fallow application and the rotational planting of any fall-seeded cereal crop. Apply up to, but **DO NOT** exceed, 3.0 pints/acre (1.43 lbs ai/A) of **Pendi H20** in any fallow application. **DO NOT** make more than one application of **Pendi H20** during a single fallow period prior to rotational planting of any fall-seeded cereal crops. Rotational crop restrictions must be adhered to when planting a rotational crop following a fallow application of **Pendi H20**.

#### Restrictions

- **DO NOT** apply more than 3.0 pints (1.43 lbs ai/A) per acre per season.
- **DO NOT** apply within 60 days before harvest of wheat or triticale grain or straw.
- DO NOT apply within 28 days before harvest of wheat or triticale hay.
- **DO NOT** apply within 11 days before harvest of wheat or triticale forage.

**NOTE:** If loss of grain crop occurs, any crop registered for **Pendi H20** preplant incorporated use may be replanted the same year without adverse effects. **DO NOT** replant wheat or triticale.

# 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 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 directions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

#### **CONTAINER HANDLING:**

[NONREFILLABLE CONTAINER (EQUAL TO OR LESS THAN 5 GALLONS): Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse 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. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration.]

[NONREFILLABLE CONTAINER (GREATER THAN 5 GALLONS): Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse 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. Turn the container over onto its other 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. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration.]

**REFILLABLE CONTAINER:** Refill this container with pesticide only. Do not reuse this container for any other purpose.

Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available or reconditioning if appropriate.]

#### CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather, presence of other materials or other influencing factors in the use of the product, which are beyond the control of Axill Solutions, LLC or Seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and Buyer and User agree to hold Axill Solutions, LLC and Seller harmless for any claims relating to such factors.

Axill Solutions, LLC warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of this product contrary to label instructions, or under conditions not reasonably foreseeable to or beyond the control of Seller or Axill Solutions, LLC and Buyer and User assume the risk of any such use. To the extent consistent with applicable law, Axill Solutions, LLC MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

To the extent consistent with applicable law, neither Axill Solutions, LLC nor Seller shall be liable for any incidental, consequential or special damages resulting from the use or handling of this product. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF AXILL SOLUTIONS, LLC AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF AXILL SOLUTIONS, LLC OR SELLER, THE REPLACEMENT OF THE PRODUCT.

Axill Solutions, LLC and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of Axill Solutions, LLC.

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Outlook is a registered trademark of BASF.

Caparol, Dual, and Sequence are registered trademarks of a Syngenta Group Company.

Clincher, Grandstand, and Granite are registered trademarks of Dow AgroSciences LLC.

Cotoran is a registered trademark of Agan Chemical Manufacturers Ltd.

*Ignite*, *LibertyLink*, and *Whip* is a registered trademark of Bayer.

Permit is a registered trademark of Nissan Chemical Industries, Ltd.

Regiment is a registered trademark of Kumiai Chemical Industry Co., Ltd.

Roterra is a trademark of Lely USA, Inc.

Roundup, Roundup Ready, Roundup PowerMAX, and Roundup WeatherMAX are registered trademarks of Monsanto Technology LLC.

Canopy and Staple are registered trademarks of E.I. duPont de Nemours and Company.

Strada is a registered trademark of Isagro USA.

**Stam** is a registered trademark of RiceCo LLC.

Valor is a registered trademark of Valent U.S.A. Corporation.

Tricor is a registered trademark of United Phosphorus, Ind.

[EPA Approval Date]

# **{BOOKLET FRONT PANEL LANGUAGE}**

{Sublabel B: Non-Agricultural Uses Complete Directions for Use}

PENDIMETHALIN GROUP 3 HERBICIDE



# Pendi H2O

[Alternate brand names: Pendimethalin H2O]

# For Preemergent Weed Control in Turfgrasses, Landscape or Grounds Maintenance, Noncropland Areas and Ornamental Production

#### **ACTIVE INGREDIENT**

pendimethalin, N-(1-ethylpropyl)-3,4-dimethyl-2, 6-dinitrobenzenamine	40.26%
OTHER INGREDIENTS:	<u>59.74%</u>
TOTAL	. 100.00%

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

# KEEP OUT OF REACH OF CHILDREN CAUTION/PRECAUCIÓN

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] [label] [booklet] [for] [First Aid][,] [additional] [Precautionary Statements][,] [and] [Directions for Use] [including] [Storage and Disposal Instructions][.]

Manufactured for:

Axill Solutions, LLC 422 Jasmine Way Roseburg, OR 97471 EPA Reg. No. 93809-xx EPA Est. No.

**Net Contents:** 

FIRST AID				
If swallowed:	Call a poison control center or doctor immediately for treatment advice.			
	• Have person sip a glass of water if able to swallow.			
	• Do not induce vomiting unless told to do so by a poison control center or doctor.			
	• Do not give anything by mouth to an unconscious person.			
If on skin or clothing: • Take off contaminated clothing.				
ar on sinn or orouning.	• Rinse skin immediately with plenty of water for 15-20 minutes.			
• 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 involving this product, call CHEMTREC at <b>1-800-424-9300</b> .				

For Chemical Emergency Spill, Leak, Fire, Exposure or Accident Call CHEMTREC Day or Night

Within USA and Canada: 1-800-424-9300 or +1 703-527-3887 (collect calls accepted)

# **Precautionary Statements**Hazards to Humans and Domestic Animals

**CAUTION.** Harmful if swallowed or absorbed through the skin. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

# **Personal Protective Equipment (PPE)**

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical resistant gloves
- · Shoes plus socks

Follow manufacturer's instruction for cleaning and maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing or 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 thoroughly after handling and 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. If
  pesticide gets on skin, wash immediately with soap and water.
- 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.

NON-TARGET ORGANISM ADVISORY STATEMENT: This product is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated site. Protect the forage and habitat of non-target organisms by following label directions intended to minimize spray drift.

# **Endangered Species Protection**

This product may have effects on federally listed threatened or endangered plant species or their critical habitat. When using this product, you must follow the measures contained in the Endangered Species Protection bulletin for the county or parish in which you are applying the pesticide. To determine whether your county or parish has a Bulletin, and to obtain the Bulletin, consult <a href="https://www.epa.gov/endangered-species">https://www.epa.gov/endangered-species</a>, or call 1-844-447-3813 no more than 6 months before using this product. Applicators must use Bulletins that are in effect in the month in which the pesticide will be applied. New Bulletins will generally be available from the above sources 6 months before their effective dates.

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 feet. The product must be applied using a low boom (20 inches above the ground) and ASABE fine to medium/coarse nozzles.
- If applied by air, leave an untreated buffer zone of 170 feet. Must use straight-stream nozzles (D-6 or larger); wind can be no more than 8 mph, and release height must be 15 feet or less.

# **Physical or Chemical Hazards**

Do not mix or allow coming into contact with oxidizing agents. Hazardous chemical reaction may occur.

# **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.

Axill Solutions, LLC does not 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 **Pendi H2O** 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
- 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.

#### MODE OF ACTION

**Pendi H2O** 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.

# **Weed Resistance Management**

For resistance management, **Pendi H2O** is a Group 3 herbicide. Any weed population may contain or develop plants naturally resistant to **Pendi H2O** and other Group 3 herbicides. Weed species with acquired resistance to Group 3 may eventually dominate the weed population if Group 3 herbicides are used repeatedly in the same field. Appropriate resistance-management strategies should be followed.

To delay herbicide resistance take one or more of the following steps:

- Rotate the use of **Pendi H2O** or other Group 3 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds in a field. Whenever possible incorporate multiple weed control practices such as mechanical cultivation, biological management practices, and crop rotation.
- Use tank mixtures with herbicides from a different group if such use is permitted; where information on
  resistance in target weed species is available, use the less resistance-prone partner at a rate that will control
  the target weed(s) equally as well as the more resistance-prone partner. Consult your local extension
  service or certified crop advisor if you are unsure as to which active ingredient is currently less prone to
  resistance.
- Adopt an integrated weed-management program for herbicide use that includes scouting and uses historical
  information related to herbicide use and crop rotation, and that considers tillage (or other mechanical
  control methods), cultural (e.g. higher crop seeding rates; precision fertilizer application method and timing
  to favor the crop and not the weeds), biological (weed-competitive crops or varieties) and other
  management practices.
- Fields should be scouted before application to identify the weed species present and their growth stage to determine if the intended application will be effective. Scout after herbicide application to monitor weed populations for early signs of resistance development. Indicators of possible herbicide resistance include: (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; (3) surviving plants mixed with controlled individuals of the same species. If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method such as hoeing or tillage. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields, and planting clean seed.
- If a weed pest population continues to progress after treatment with this product, discontinue use of this product and switch to another management strategy or herbicide with a different mode of action (MOA), if available. Treat weed escapes with an herbicide with a different MOA or use non-chemical methods to remove escapes. To the extent possible do not allow weed escapes to produce seeds, roots, or tubers.
- Contact your local extension specialist, certified crop advisors, and/or manufacturer for additional herbicide
  resistance management and/or integrated weed management recommendations for specific crops and
  resistant weed biotypes. Report any incidence of non-performance of this product against a particular weed
  species to your retailer or Axill Solutions, LLC representative.

#### PRODUCT INFORMATION

APPLICATION USE SITES – for preemergence control of grasses and certain broadleaf weed species as they germinate.

Turfgrass sites (golf courses, lawns, sod farms and other turf areas) and landscape ornamental maintenance areas. 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.

**Grounds maintenance** in areas such as parking lots, driveways and roadsides, alley ways, 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.

**Noncropland areas** 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 established wildflower plantings where weed control is desired.

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 on, but are not limited to, plant species listed on this label such as trees, shrubs, groundcovers, perennials, bulbs, ornamental grasses and bedding plants.

In and around field, liner and container ornamental production.

#### APPLICATION INSTRUCTIONS

**Pendi H2O** will not control established weeds. Therefore, areas to be treated should be free of established weeds at the time of treatment, or use **Pendi H2O** together 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 **Pendi H2O** will be best if the application is followed by one-half inch of rainfall or its equivalent in sprinkler irrigation. If **Pendi H2O** is not activated by rainfall or irrigation within 30 days, weed control may be erratic.

When applied according to label directions and under normal growing conditions, **Pendi H2O** or **Pendi H2O** tank-mix combinations will not cause crop injury. Over-application can cause 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 **Pendi H2O**.

#### MIXING INSTRUCTIONS

**Pendi H2O** 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 **Pendi H2O** alone.

When using tank mixtures or sequential applications with **Pendi H2O**, 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**

1. Fill tank 1/2 to 3/4 full with clean water or liquid fertilizer and agitate. Before mixing **Pendi H2O** or **Pendi H2O** tank mixtures in liquid fertilizer, refer to appropriate label sections for directed uses in liquid fertilizer, application instructions, and compatibility determinations.

#### 2. Pendi H2O

When using **Pendi H2O** alone, add **Pendi H2O** to the partially filled tank while agitating and then fill the remainder of the tank with water or liquid fertilizer.

#### 3. Pendi H2O Tank Mixes

Add the tank mixture ingredients in the order listed below before adding **Pendi H2O**:

- (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 **Pendi H2O** 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, agitate thoroughly 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 **Pendi H2O**. Cap sprayer and agitate to ensure mixing. Uncap sprayer and finish filling tank to desired level.

Cap sprayer and agitate 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, agitate thoroughly before spraying is resumed.

#### 6. LIQUID FERTILIZERS

Before mixing, always test small quantities using a simple jar test. Add the required amount of **Pendi H2O** to a half filled spray tank while agitating; then add the fertilizer product. Complete filling spray tank to desired level.

#### SPRAYING INSTRUCTIONS

#### **GROUND APPLICATIONS**

Apply with properly calibrated ground equipment in sufficient water per acre to uniformly treat the area, using 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 listed. Do not apply when winds may cause drift.

Avoid contact of spray solution with driveways, stone, wood, or other porous surfaces. If contact occurs, rinse immediately with water to avoid staining. Do not mechanically scrub until the surface area is thoroughly rinsed. Allow treated turfgrass to dry before entering to avoid staining onto non-treated surfaces.

#### **AERIAL APPLICATIONS**

Apply uniformly in 5 or more gallons of water per acre. Take care 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. To avoid overlapping and possible crop injury, use a flagman or an automatic mechanical flagging unit on the aircraft.

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipmentand 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.

Observe more stringent state regulations. The applicator must 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

Do not apply 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. Increase swath adjustment distance 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. Do not apply when wind is below 2 mph due to variable wind direction and high inversion potential. **NOTE:** Local terrain can influence wind patterns. Every applicator must 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

Do not apply 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.

# Boom-less Ground Applications:

- Applicators are required to use a medium or coarser droplet size (ASABE S572.1) for all applications.
- Setting nozzles at the lowest effective height will help to reduce the potential for spray drift.
- Do not apply when wind speeds exceed 15 miles per hour at the application site.
- Do not apply during temperature inversions.

#### Hand-held Technology Applications:

• Take precautions to minimize spray drift.

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

# **Application Rates For Preemergence Weed Control**

	Pendi H2O <sup>1</sup>				
Turfgrass Species	Weeds	fl. oz.	pints	Comments	
		Product per 1,000 sq. ft.	Product per acre		
COOL SEASON GI	RASSES	<u> </u>			
Bluegrass, Kentucky	Barnyardgrass	All Tu	rf Uses:	Make a repeat	
Fescue, Fine	Crabgrass	1.1 to 1.6 fl oz (0.03 – 0.05 lb ai)	3.1 to 4.2 pints (1.47 – 2 lbs ai)	application of 2.2 to 3.1 pints (1.05 – 1.47 lbs ai)/A	
Fescue, Tall	Evening Primrose	Initial application before	e weed germination in	(0.86 to 1.1	
Ryegrass, Perennial	Fall Panicum	spring.		oz $(0.026 - 0.03 \text{ lb}$ ai)/1000 sq. ft.) after 5-8	
	Foxtail Hop Clover			weeks for extended	
	Knotweed			control or where heavy weed infestations are	
	Oxalis			expected.	
	Poa annua				
	Prostrate Spurge				
	Purslane				

	Pendi H2O <sup>1</sup>			
Turfgrass Species  COOL SEASON G.	Weeds	fl. oz. Product per 1,000 sq. ft.	pints Product per acre	Comments
COOL SEASON G.	KASSES			
	Goosegrass	Turf Use 1.1 to 1.6 fl oz (0.03 – 0.05 lb ai)	es Only <sup>2</sup> :  3.1 to 4.2 pints (1.47 – 2 lbs ai)	Make a repeat application of 3.1 Pints (1.47 lbs ai)/Acre (1.1 oz (0.03 lb ai)/1000
			ercial and Other Non- urf Uses Only: 3.1 to 6.3 pints (1.47 – 3 lbs ai)	sq. ft.) if the lower rate was used initially or for extended goosegrass
	Chickweed	Initial application before spring.		control after 5-8 weeks.  Apply in late summer or
	Corn Speedwell Cudweed Henbit Lawn Burweed Poa annual	1.1 to 1.6 fl oz (0.03 – 0.05 lb ai)	3.1 to 4.2 pints (1.47 – 2 lbs ai)	early fall before weed germination. Apply a repeat application of 3.1 to 4.2 pints (1.47 – 2 lbs ai) (1.1 to 1.6 oz (0.03 – 0.05 lb ai)/1,000 sq. ft.) after 5-8 weeks for extended <i>Poa annua</i> control.
Bentgrass or	Barnyardgrass	All Turf Uses		Make a repeat
established <i>Poa</i> annua³ (1/2 inch height or taller)	Crabgrass Evening Primrose Fall Panicum Foxtail Hop Clover Knotweed Poa annua Oxalis Prostrate Spurge Purslane	1.1 fl oz (0.03 lb ai) Initial application before spring.	-	application of 2.2 to 3.1 Pints (1.05 – 1.47 lbs ai)/Acre (0.86 to 1.1 oz (0.026 – 0.03 lb ai)/1000 sq. ft.) after 5-8 weeks for extended control or where heavy weed infestations are expected.
	Goosegrass		rf Uses	Apply a repeat application of 3.1 pts
		1.1 fl oz (0.03 lb ai) Initial application before spring.		(1.47 lbs ai)/Acre (1.1 oz (0.03 lb ai)/1000 sq. ft.) for extended goosegrass control after 5-8 weeks.
	Chickweed Corn Speedwell Cudweed Henbit Lawn Burweed Poa annua		rf Uses as and Tees): 3.1 to 4.2 pints (1.47 – 2 lbs ai)	Apply in late summer or early fall before weed germination.

Pendi H2O <sup>1</sup>						
Turfgrass Weeds fl. oz. pints Comments						
Species		Product per 1,000 sq. ft.	Product per acre			
WARM SEASO	WARM SEASON GRASSES					
Bahiagrass	Bahiagrass Barnyardgrass Residential and Sod Farm Make a repeat application of 2.2					
Bermudagrass	Crabgrass	Turf Uses Only:		to 3.1		
Buffalograss	Evening	1.1 to 1.6 fl oz (0.03 – 3.1 to 4.2 pints (1.47 –		Pints (1.05 – 1.47 lbs ai)/Acre		

Centipedegrass Fescue, Tall Paspalum, seashore St. Augustinegrass Zoysiagrass	Primrose Fall Panicum Foxtail Hop Clover Knotweed Poa annua Oxalis Prostrate Spurge Purslane	0.05 lb ai)  Golf Course, Comme Residential To 1.1 to 2.3 fl oz (0.03 – 0.07 lb ai)  Initial application before spring.	<b>urf Uses Only:</b> 3.1 to 6.3 pints (1.47 – 3 lbs ai)	(0.86 to 1.1 oz (0.026 – 0.03 lb ai)/1000 sq. ft.) after 5-8 weeks if necessary.
	Goosegrass	All Tu (Non-Green 1.1 fl oz (0.03 lb ai) Apply before weed gern Make a second applicati ai) (1.1 oz (0.03 lb ai)/lu later.	3.1 pints (1.47 lbs ai) nination in spring. on at 3.1 pints (1.47 lbs	An additional application of 3.1 pt (1.47 lb ai)/Acre (1.1 oz (0.03 lb ai)/1000 sq. ft.) may be made for extended goosegrass control 8 weeks after the second application.
	Chickweed Corn Speedwell Cudweed Henbit Lawn Burweed Poa annua	1.1 to 1.6 fl oz (0.03 – 0.05 lb ai)	and the second s	Apply in late summer or early fall before weed germination.  Make a repeat application of 3.1 to 4.2 pints (1.47 – 2 lbs ai) (1.1 to 1.6 oz (0.03 – 0.05 lb ai)/1,000 sq. ft.) 5-8 weeks for extended <i>Poa annua</i> control.

Do not use more than 4.2 pints (2.1 quarts) (2 lbs ai/A) <u>per acre per application</u> on residential and sod farm turfgrass. Do not use more than 6.3 pints (3.1 quarts) (3 lbs ai/A) <u>per acre per application</u> on golf course turfgrass, commercial or other non-residential turfgrass.

The efficacy of **Pendi H2O** is best if the application is followed by one-half inch of rainfall or its equivalent in sprinkler irrigation. If **Pendi H2O** is not activated by rainfall or irrigation within 30 days, weed control may be erratic.

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 undesirable, do not rub or scrub surface, but rinse area immediately using a heavy spray of water to avoid staining. Allow treated turfgrass to dry before entering to avoid staining non-treated surfaces.

#### TURFGRASS TANK MIXES

**Pendi H2O** can be mixed with postemergence herbicides to control emerged weeds in non-residential turfgrasses. For annual grass control, applications can be made with DRIVE® or MSMA to control emerged weeds.

Broadleaf weeds can be controlled using Trimec, Three Way, 2-4,D and other similar products.

Before tank mixing, perform a simple jar test to insure compatibility of herbicides.

Refer to manufacturers' labels for specific use directions, precautions, and limitations before tank mixing with **Pendi H2O** and follow those that are most restrictive.

#### TURFGRASS RESTRICTIONS

- Use on well established turfgrass with a dense and uniform stand. If turf has been thinned or damaged due to winter injury, excessive moisture, etc., allow turf to recover before application.
- On newly planted areas, do not apply until the turfgrass has filled in and has been mowed at least four times. Applications made to overseeded warm-season turfgrasses may cause thinning or injury of the overseeded species.
- Do not use on bentgrass or *Poa annua* greens and tees or injury may occur.
- Delay reseeding or winter overseeding of treated turfgrass for at least three (3) months following the last **Pendi H2O** application.
- Delay sprigging turfgrass for five (5) months after application.

<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.

#### LANDSCAPE AND GROUNDS MAINTENANCE

**Pendi H2O** can be incorporated into landscape and grounds maintenance programs to provide extended preemergence control of most annual grasses and certain broadleaf weeds in areas such as mulch beds, parking areas and roadsides, fencelines and borders, and around statuary or monuments. Ensure that these areas are free of emerged weeds before application. To remove emerged weeds either cultivate or tank mix **Pendi H2O** with a postemergence product labeled for such use.

Not all ornamental species or cultivars of species have been tested for plant safety. Refer to the list of ornamental plant species found in this label. While **Pendi H2O** may be used on plant species not listed on this label, a small number of plants should be tested at the specified rate to evaluate suitability before a broad-use application is made.

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

# ORNAMENTAL PLANTINGS AND TREE PLANTATIONS INCLUDING NONCROPLAND AREAS

Use **Pendi H2O** 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. **Pendi H2O** may be used for hardwood and conifer regeneration on conservation reserve program (CRP) land. **Pendi H2O** can also be used in Christmas trees and non-bearing fruit and nutcrops and vineyards established, or bulb and wildflower field plantings, and 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 applying at planting, it is important that slit closure be achieved to prevent **Pendi H2O** 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** before making an application.

For postemergence control of weeds, use tank-mix combinations of **Pendi H2O** plus VANTAGE®, Roundup®, Finale®, or other labeled herbicides. Refer to approved labeling for species lists. Determine rates for the tank mix compounds from the product labels of both **Pendi H2O** and partner herbicides before use. Take care to prevent combination sprays from direct contact with desirable foliage or injury may result. **Pendi H2O** plus diuron or simazine combinations will broaden weed control spectrum, however, use of combinations may restrict **Pendi H2O** 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

**Pendi H2O** 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 **Pendi H2O** before, during or after bulb emergence. If weeds have already germinated add a labeled postemergence herbicide to control emerged weeds

#### WILDFLOWERS

**Pendi H2O** 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 **Pendi H2O** at 4.2 pints (2.1 quarts) (2 lbs ai/A) per acre. **Pendi H2O** may be applied to established perennial wildflowers before emergence of weeds or wildflowers. For wildflowers being established from seed, apply **Pendi H2O** no sooner than 4 weeks after wildflowers have emerged but before weed germination. If weeds have already germinated, add a labeled postemergence product to control emerged weeds. Refer to all label restrictions before making an application.

Due to the diversity of species and varieties which exist in areas where wildflowers are grown, the response to **Pendi H2O** may vary greatly. Test desirable species carefully to determine if area-wide applications can be made.

#### NON-BEARING FRUIT AND NUT CROPS AND VINEYARDS

**Pendi H2O** 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

Use **Pendi H2O** 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

**Pendi H2O** 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®, VANTAGE®, MSMA, or similar products may be tank mixed to control established weeds. Apply according to label instructions for the respective products and follow the most restrictive wording.

#### TOTAL VEGETATION CONTROL

**Pendi H2O** may be tank mixed with ARSENAL®, SAHARA®, PLATEAU®, VANTAGE®, Roundup® PRO, Karmex®, Finale®, Oust®, diuron, glyphosate or other products to provide bare ground, or total vegetation control. **Pendi H2O** 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. Determine rates from the product labels before use. Follow the most restrictive label instructions.

For Kochia control, use a combination of **Pendi H2O** with ARSENAL herbicide or diuron 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 **Pendi H2O** as follows:

Length of Control	Product per Acre	Product per 1000 sq. ft.
Short Term Control (2-4 months)	2.1 Quarts (2 lbs ai)	1.6 fl. oz. (0.05 lb ai)
Long Term Control (6-8 months)	4.2 Quarts (4 lbs ai)	3.2 fl. oz. (0.1 lb ai)

<sup>\*</sup>For all turfgrass weed control rates, refer to **Table 1** instructions.

For extended weed control, repeat applications of **Pendi H2O** can be made.

#### INSTRUCTIONS AND RESTRICTIONS

#### LANDSCAPE AND ORNAMENTAL PLANTINGS<sup>1</sup>

Site	Application Instructions and Restrictions		
Landscape Plantings <sup>2</sup>	1. 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. Use the lowest labeled rate when making applications to annuals. Repeat applications can be made for extended landscape weed control.		
Ornamental Bulbs <sup>3</sup>	1. <b>Pendi H2O</b> may be applied to bulb species listed on the label.		
	2. Apply before, during or after bulb emergence, but not during bloom.		

Wildflowers <sup>3</sup>	Pendi H2O may be applied in plantings of wildflowers listed on the label. Refer to specific instructions for rate and plant tolerance.
	2. For wildflowers being established from seed, apply at 4 weeks after wildflowers have germinated, but before weed seed germination.

Plant only those desirable plant species listed on this label into soil treated the previous season with **Pendi H2O** or injury may occur.

# HAND-HELD SPRAY EQUIPMENT:

Use table 2 above to determine the amount of **Pendi H2O** to be applied per 1000 square feet, in sufficient water 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.

**Pendi H2O** will not control established weeds. If weeds germinate before activation of herbicide, shallow cultivate to destroy existing weeds or, where practical, remove by hand. Any necessary cultivation must be shallow. **Pendi H2O** may be used together with herbicides registered for postemergence use (i.e. glyphosate or Finale) for the control of established weeds. Do not apply sprays containing glyphosate or Finale over the top of desirable plants. A **Pendi H2O** treatment may be followed by any registered herbicide to control weeds not listed on the **Pendi H2O** label.

The efficacy of **Pendi H2O** will be best if the application is followed by one-half inch of rainfall or its equivalent in sprinkler irrigation. Erratic weed control may result if **Pendi H2O** is not activated by rainfall or irrigation within 30 days. The following grass and broadleaf weeds are controlled by preemergence treatments of **Pendi H2O** at the above-specified rates:

# **GRASSES CONTROLLED**

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

# **BROADLEAF WEEDS CONTROLLED**

Common Name	Scientific Name	Common Name	Scientific Name
Burweed, Lawn	Soliva pterosperma	Pigweed	Amaranthus spp.
Carpetweed	Mollugo verticillata	Puncturevine	Tribulus terrestris
Chickweed, Common	Stellaria media	Purslane	Portulaca oleracea
Chickweed, Mouseear	Cerastium vulgatum	Pusley, Florida	Richardia scabra
Clover, Hop	Trifolium procumbens	Rocket, London	Sisymbrium irio
Cudweed	Gnaphalium spp.	Shepherdspurse	Capsella bursa- pastoris
Evening primrose	Oenothera biennis	Smartweed, Pennsylvania	Polygonum pensylvanicum
Fiddleneck	Amsinckia intermedia	Speedwell, Corn	Veronica arvensis
Filaree	Erodium spp.	Spurge, Annual	Euphorbia spp.

<sup>&</sup>lt;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> Before treating a large number of plants, spray a few plants and observe for 1-2 months for plant damage before full-scale application.

Henbit Lamium amplexicaule Spurge, Prostrate Euphorbia humistrata
Knotweed, prostrate Polygonum aviculare Woodsorrel, Yellow Oxalis stricta
Kochia Kochia scoparia Velvetleaf (Buttonweed) Abutilon theophrasti
Lambsquarters Chenopodium album

#### COMMERCIAL ORNAMENTAL PRODUCTION

#### **USE INFORMATION**

Application Use Sites: Pendi H2O can be used in and around field, liner and container ornamental production.

**Pendi H2O** sprays may be used 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 before any application of **Pendi H2O**. 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 before full-scale application.

#### APPLICATION INSTRUCTIONS

**Pendi H2O** will not control established weeds. Therefore, ensure that areas to be treated are free of established weeds at the time of treatment, or **Pendi H2O** may be used together 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 **Pendi H2O** will be best if the application is followed by one-half inch of rainfall or its equivalent in sprinkler irrigation. If **Pendi H2O** 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, **Pendi H2O** or **Pendi H2O** 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 **Pendi H2O**.

#### SPRAYING INSTRUCTIONS

Apply uniformly 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 specified. Avoid application when winds may cause drift.

Avoid 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

Do not apply in greenhouses, shadehouses or other enclosed structures.

Site	Application Instructions and Restrictions
Newly-Transplanted Field-Grown Nursery Stock <sup>2, 3</sup>	1. Do not make over-the-top applications at time of field transplanting. Use shielded sprayer until plantings have been established for one (1) year or more in the field.
	2. Do not apply until transplants have been watered and soil has been thoroughly packed and settled around transplants. Take care to ensure there are no cracks in the soil where <b>Pendi H2O</b> could come into contact with the roots.
	3. <b>DO NOT</b> apply during bud swell, bud break or at time of first flush of new growth.
	4. 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 <b>Pendi H2O</b> 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 tissue on transplants at all times.

Established Container, or Field- Grown Nursery Stock <sup>2, 3</sup>	<ol> <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>Take care to ensure there are no cracks in the soil where <b>Pendi H2O</b> could come into contact with the roots.</li> </ol>
Bare Ground for Container Placement	1. Apply to soil then water in (including mulch, gravel, wood chips, or other permeable base), replace containerized ornamentals onto pad.

<sup>&</sup>lt;sup>1</sup> Plant only those desirable plant species listed on this label into soil treated the previous season with **Pendi H2O** or injury may occur.

Refer to Table 3. Application Rates for Weed Control in Production Ornamentals.

#### ORNAMENTAL TANK MIXES

Emerged weeds in ornamentals can be controlled using tank mixes containing VANTAGE®, Roundup®, Finale®, Ornamec®, Gallery®, Princep®, and other similar products. Do not apply sprays containing Roundup or Finale over the top of ornamental plants.

Before tank mixing, perform a simple jar test to insure compatibility of herbicides.

Refer to manufacturers' labels for specific use directions, precautions, and limitations before tank mixing with **Pendi H2O** and follow those that are most restrictive.

#### CHRISTMAS TREE PLANTATIONS

**Pendi H2O** may be used in and around Christmas tree plantations. **Pendi H2O** 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 **Pendi H2O** from directly contacting the tree roots or being washed into the root zone via the open slit or root stunting may

For postemergence control of weeds, use tank-mix combinations of **Pendi H2O** plus VANTAGE, Roundup, Finale, or other labeled herbicides. Refer to approved labeling for species information. Determine rates for the tank-mix compounds from the product labels of both **Pendi H2O** and partner herbicides before use. Precaution must be exercised to prevent combination sprays from direct contact with desirable foliage or injury may result. **Pendi H2O** plus diuron or simazine combinations will broaden weed control spectrum; however, use of combinations may restrict **Pendi H2O** 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

**Pendi H2O** may be used 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. **Pendi H2O** may be tank mixed with VANTAGE, Roundup PRO, Karmex<sup>®</sup>, Finale<sup>®</sup>, 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. Determine rates from the product labels before 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 **Pendi H2O** at the following rates:

Length of Control	Product per Acre	Product per 1000 sq. ft.
Short Term Control (2-4 months)	2.1 Quarts (2 lbs ai)	1.6 fl. oz. (0.05 lb ai)
Long Term Control (6-8 months)	4.2 Quarts (4 lbs ai)	3.2 fl. oz. (0.1 lb ai)

<sup>\*</sup>For extended weed control, repeat applications of **Pendi H2O** can be made.

<sup>&</sup>lt;sup>2</sup> Before treating a large number of plants, spray a few plants and observe for 1-2 months for plant damage before full-scale application.

<sup>&</sup>lt;sup>3</sup> Do not treat plants grown for food or feed. Do not use treated plants for food or feed.

#### **HAND-HELD SPRAY EQUIPMENT:**

Use the table above to determine the amount of **Pendi H2O** 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.

**Pendi H2O** will not control established weeds. If weeds germinate before activation of herbicide, shallow cultivate to destroy existing weeds or, where practical, remove by hand. Any cultivation must be shallow. **Pendi H2O** may be used together 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 **Pendi H2O** treatment may be followed by any registered herbicide to control weeds not listed on the **Pendi H2O** label.

The efficacy of **Pendi H2O** 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 **Pendi H2O** is not activated by rainfall or irrigation within 30 days.

The following grass and broadleaf weeds are controlled by preemergence treatments of **Pendi H2O** at the above-specified rates:

#### GRASSES CONTROLLED

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

#### BROADLEAF WEEDS CONTROLLED

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

# **Table 4. ORNAMENTAL SPECIES**

**Pendi H2O** sprays may be used around and over the top of the established plants listed below. Refer to Ornamental Instructions and Restrictions before application. Refer to **Table 3. Application Rates For Weed Control Production Ornamentals**.

#### TREES

**Common Name** Scientific Name **Common Name** Scientific Name Alder, European Black Alnus glutinosa Magnolia, Star Magnolia stellata Ginkgo biloba Apple Malus spp. Maidenhair Tree Thuja occidentalis Maple, Norway Acer platanoides Arborvitae, American Maple, Japanese Acer palmatum Arbutus Arbutus spp. Ash, Red Fraxinus pennsylvanica Maple, Red Acer rubrum Fraxinus americana Ash. White Maple, Sugar Acer saccharum Populus grandidentata Nannyberry, Rusty Aspen, Bigtooth Viburnum rufidulum Aspen, Quaking Populus tremuloides Oak, Chinquapin Quercus muehlenbergii Basswood Tilia spp. Oak, Live Quercus virginiana Oak, Pin Birch, European Weeping Betula pendula Quercus palustris Birch, River Oak, Red Betula nigra Ouercus rubra Buckeye, Red Aesculus pavia Oak, Swamp Chestnut Quercus michauxii Cedar, White Thuja occidentalis Oak, Water Quercus nigra Chamaecyparis, Boulevard Chamaecyparis pisifera Oak, White Quercus alba Cherry, Black Prunus serotina Oak, Willow Quercus phellos Cherry, Choke Prunus virginiana Olive Olea europaea Cherry, Kwanzan Prunus serrulata Palm. Date Phoenix spp. Cherry, Nanking Washingtonia spp. Prunus tomentosa Palm. Fan Cottonwood Populus deltoides Palm, Pindo Butia spp. Crabapple Malus spp. Palm, Washington Washingtonia spp. Crepe Myrtle Lagerstroemia indica Peach Prunus persica Cryptomeria, Japanese Cedar Cryptomeria japonica Pear, Bradford Pyrus calleryana 'Bradford' Cypress, Bald Taxodium distichum Pecan Carya illinoensis Cypress, Leyland Cupressocyparis leylandii Pine, Austrian Pinus nigra Dogwood, Flowering Cornus florida Pine, Italian Stone Pinus pinea Dogwood, Korean Cornus kousa Pine, Loblolly Pinus taeda Dogwood, Silky Cornus amomum Pine, Monterey Pinus radiata Dogwood, Shrub Cornus spp. Pine, Red Pinus resinosa Elm Ulmus japonica Pine, Scotch Pinus sylvestris Elm, Winged Ulmus alata Pine, Virginia Pinus virginiana Eucalyptus (Silver-dollar) tree Pine, White Pinus strobus Eucalyptus cinerea Fir, Balsam Abies balsamae Plum, Purple Leaf Prunus cerasifera Fir, Douglas Pseudotsuga menziesii Poplar, Black Populus nigra Fir, Fraser Abies fraseri Redcedar, Eastern Juniperus virginiana Fir, White Redcedar, Western Abies concolor Thuja plicata Franklinia Franklinia spp. Red Ironbark Eucalyptus sideroxylon 'Rosea' Fringe tree Chlonenthus retusus Redwood, Dawn Metasequoia glyptostroboides Ginkgo Ginkgo biloba Sequoia, Giant Sequoiadendron giganteum Gum, Black Nyssa sylvatica Serviceberry Amelanchier laevis Gum, Sour Nyssa sylvatica Sourwood Oxydendrum arboreum Spruce, Colorado Blue Haw, Black Viburnum prunifolium Picea pungens Hawthorn Crataegus spp. Spruce, Dwarf Alberta Picea glauca 'albertiana' Hemlock, Canada Tsuga canadensis Spruce, Norway Picea abies Hemlock, Eastern Tsuga canadensis Spruce, White Picea glauca Holly, American Ilex opaca Sweetgum Liquidambar styraciflua Honeylocust Gleditsia triacanthos Sycamore Platanus occidentalis Lilac, Common Syringa vulgaris Trachycarpus Trachycarpus spp. Lilac, Japanese Tree Syringa reticulata Tulip tree Liriodendron tulipifera Linden Tilia spp. Walnut, Black Juglans nigra Magnolia, Saucer Magnolia soulangiana Willow, Weeping Salix babylonica Yellowwood Cladrastis lutea Magnolia, Southern Magnolia grandiflora

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Laurel, Mountain

Laurel, Otto Luyken

Common Name Scientific Name **Common Name** Scientific Name Abelia, Glossy Abelia grandiflora Laurel, Schipka Prunus schipkanensis Alder, Witch Fothergilla gardenii Laurustinus Viburnum tinus Aucuba, Gold Aucuba japonica Lavender, English Lavandula angustifolia Rhododendron sp. Azalea Leucothoe Leucothoe fontanesiana Bamboo, Heavenly Nandina domestica Leucothoe, Coast Leucothoe axillaris Barberry Berberis gladwynensis Lilac, Cut-leaf Syringa laciniata Agapanthus africanus Barberry, Japanese Berberis thunbergii Lily-of-the-Nile Blue Indigo Bush Dalea gregii Mahonia Mahonia aquifolium Bottlebrush, Lemon Callistemon citrinus Mock Orange Pittosporum tobira Boxwood, Common Buxus sempervirens Myrtle, Compact Myrtus communis Boxwood, Japanese Buxus microphylla Myrtle, Wax Myrica cerifera Brittlebush Encelia farinosa Nandina Nandina domestica Buttonbush Cephalanthus occidentalis Oleander Nerium oleander Camellia Camellia japonica Oregon Grape Mahonia aquifolium Cape Jasmine Gardenia jasminoides Osmanthus Osmanthus fragrans Cassia, Feathery Palm, European Fan Chamaerops humilis Cassia artemisioides Cordvline Palm, Mediterranean Fan Chamaerops spp. Cordyline spp. Correa Phlox, Prickly Leptodactylon californicum Correa spp. Photinia, Fraser Photinia x Fraseri Cotoneaster Cotoneaster apiculatus Cotoneaster, Bayberry Pieris, Japanese Pieris japonica Cotoneaster dammeri Cotoneaster, Rock Cotoneaster horizontalis Pine, Mugo Pinus mugo Cypress, Italian Cupressus sempervirens Plum, Natal Carissa grandiflora Cypress, Leyland Cupressocyparis leylandii Privet, California Ligustrum ovalifolium Deutzia gracilis Privet, Glossy Ligustrum lucidum Deutzia, Slender Dogwood, Red Twig Cornus sericea Privet, Variegated Ligustrum sinensis Elaeagnus Elaeagnus ebbingei Privet, Waxleaf Ligustrum japonicum Pyracantha coccinea Escallonia Escallonia fradesii Pyracantha Euonymus Euonymus fortunei Ouince, Flowering Chaenomeles japonica Euonymus, Golden Euonymus japonica Ranger, Texas Leucophyllum frutescens Euonymus, Winged Euonymus alata Redroot Ceanothus spp. Firethorn Pyracantha coccinea Rhododendron Rhododendron spp. Forsythia, Border Forsythia intermedia Robira Pittosporum tobira Fragrant Olive Osmanthus fragrans Rose Rosa spp. Fuschia, California Zauschineria californica Spice Plant Illicium parviflorum Gardenia Gardenia jasminoides Spiraea vanhouttei Spiraea Hawthorne, Indian Raphiolepis indica Spiraea, Anthony Waterer Spiraea X bumalda Hibiscus Hibiscus syriacus Spiraea, Japanese Spiraea japonica Holly, Chinese Ilex cornuta Laurus nobilis Sweet Bay Holly, Japanese Ilex crenata Trumpet Bush Tecoma stans Holly, Fosters Ilex attenuata 'Fosteri' Verbena, Lemon Aloysia triphylla Holly, Savannah Ilex attenuata Viburnum Viburnum suspensum Holly, Yaupon Ilex vomitoria Vitex Vitex spp. Honeysuckle, Bush Diervilla lonicera Weigela Weigela florida Hopseed Bush Dodonaea viscosa Wild Lilac Ceanothus spp. Hopbush Dodonaea viscosa Wisteria Wisteria spp. Hydrangea Hydrangea macrophylla Xylosma Xylosma congestum Juniper Juniperus sp. Yellowbells Tecoma stans Yew\* Juniper, Chinese Juniperus chinensis v. pfitzer Taxus media Juniper, Shore Juniperus conferta Yew, Japanese\* Taxus cuspidata Juniper, Trailing Juniperus horizontalis Yew. Southern\* Podocarpus macrophyllus Yucca, Adam's Needle Laurel, Cherry Prunus laurocerasus Yucca filamentosa

Kalmia latifolia

Prunus laurocerasus

Yucca, Weeping

Yucca pendula

<sup>\*</sup> Do not apply **Pendi H2O** during spring growth or injury to terminals may occur.

#### **GROUND COVERS**

**Common Name** Scientific Name **Common Name** Scientific Name Ajuga Mondograss Ophiopogon japonica Ajuga reptans Baby Sun Rose Aptenia cordifolia Morning glory Convolvulus spp. Beach Strawberry Fragaria chiloensis Myoporum Myoporum parviflolium Capeweed Arctotheca calendula Pachysandra Pachysandra terminalis Cinquefoil, Spring Potentilla verna Potentilla Potentilla fruticosa Coyotebrush, Dwarf Baccharis pitularis Red Apple Aptenia cordifolia Daisy, Trailing African Osteospermum fruticosum Rosemary Rosemarinus officinalis Dymondia Dymondia margaretae Rose-Of-Sharon Hypericum calycinum Gazania Gazania splendens Sand Strawberry Fragaria chiloensis Iceplant, Large Leaf Carpobrotus edulis Sedum Sedum spurium Hypericum calycinum Ivy, English Hedera helix St. Johnswort, Creeping Ivy, Geranium Pelargonium peltatum Sedum spurium Stonecrop Jasmine, Asiatic Trachelospermum asiaticum Verbena, Peruvian Verbena peruviana Jasmine, Primrose Jasminum mesnyi Vervain Verbena peruviana Jessamine, Carolina Gelsemium sempervirens Vetch, Crown Vicia sativa Manzanita, Bearberry Arctostaphylos uva-ursi Vinca Vinca minor Miscanthus Miscanthus spp. Wintercreeper Euonymous fortunei

#### **PERENNIALS**

Common Name	Scientific Name	Common Name	Scientific Name
Acacia	Acacia redolens	Geum	Geum spp.
Asparagus	Asparagus spp.	Gladiolus	Gladiolus spp.
Aster, New York	Aster novi-belgii	Heather, Dwarf	Calluna vulgaris
Aster, Stokes	Stokesia laevis	Hosta	Hosta spp.
Astilibe (False Spirea)	Astilibe spp.	Indian Blanket†	Gaillardia pulchella
Avens	Geum triflorum	Iris, Japanese	Iris kaemphera
Baby's Breath	Gypsophila elegans	Lantana, Weeping	Lantana montevidensis
Baby's Breath	Gypsophila paniculata	Leopards Bane	Doronicum cordatum
Beard-Tongue	Penstemon spp.	Lily	Lillium spp.
Bellflower	Campanula spp.	Liriope, Big Blue	Liriope muscari
Bellflower, Willow	Campanula persicifolia	Liriope, Creeping	Liriope spicata
Bird of Paradise	Caesalpinia pulcherrima	Liriope, Variegated	Liriope muscari
Black-eyed Susan†	Rudbeckia hirta	Moonbeam	Coreopsis verticillata
Blanket Flower†	Gaillardia aristata	Montbretia	Crocosmia crocosmiiflora
Blanket Flower†	Gaillardia x grandiflora	Mugwort, Western	Artemesia ludoviciana
Bleeding Heart	Dicentra spectabilis	Nightshade	Solanum spp.
Butterfly Weed	Asclepias tuberosa	Orchid, Peacock	Acidanthera bicolor
California Poppy	Eschscholzia california	Oxeye Daisy†	Chrysanthemum leucanthemum
Calla Lily	Zantedeschia aethiopica	Palm, Areca	Chysalidocarpus lutescens
Canna, Common Garden	Canna generalis 'Lucifer'	Palm, Pygmy Date	Phoenix roebelence
Carex	Carex spp.	Palm, Washington	Washington robusta
Chincherinchee	Ornithogalum thyrsoides	Peony, Chinese	Paeonia lactiflora
Clover, Crimson†	Trifolium incarnatum	Purple Coneflower†	Echinacea purpurea
Columbine	Aquilegia 'McKana Giant'	Purple Gay-feather	Liatris pycnostachys
Columbine	Aquilegia x hybrida	Purple Loosestrife	Lythrum virgatum
Coreopsis (tickseed)†	Coreopsis lanceolata	Rodgersia	Rodgersia henricie
Crinum Lily	Crinum spp.	Rosemary	Rosmarinus officinalis
Crocus	Crocus spp.	Sedge	Carex spp.
Daffodil	Narcissus spp.	Shasta Daisy†	Chrysanthemum x superbum
Daylily	Hemerocallis spp.	Statice	Limonium latifolia
Fairy Duster	Calliandra eriophylla	Statice, German	Goniolimon tartaricum
Fern, Asparagus	Asparagus officinalis	Sweet Flag	Acorus calamus
Fern, Boston	Nephrolepis exaltata	Tickseed†	Coreopsis lanceolata
Fern, Hay-scented	Dennstaedtia punctilobula	Texas Bluebonnet	Lupinus texenis
Fern, Leatherleaf*	Rumohra adiantiformis	Tulip	Tulipa spp.

Common Name	Scientific Name	Common Name	Scientific Name
Fortnight Lily	Moraea spp.	Wonder Flower	Ornithogalum thyrsoides
Foxglove	Digitalis purpurea	Yarrow†	Achillea millefolium
Freesia	Freesia x hybrida	Zephyr Lily	Zephyranthes spp.
Gaillardia	Gaillardia pulchella		

<sup>\*</sup> Applications of **Pendi H2O** to immature ferns (during periods of new growth of fronds) may result in some injury.

#### ORNAMENTAL GRASSES

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

#### **BEDDING PLANTS**

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

<sup>\*</sup> Do not apply **Pendi H2O** sooner than four weeks after transplanting for these annuals. Use the lower labeled rate.

**Pendi H2O** may be used on plant species not listed on this label. Determine the suitability for such uses by treating a small number of such plants at the specified rate. Evaluate treated plants 1-2 months following treatment for possible injury.

#### [optional wording

- For use around landscape ornamentals
- Ground covers/perennials
- Around nonbearing fruit trees and non- bearing vinears
- Non crop land and industrial sites
- Established warm season turf including Bahia grass, Bermuda grass, buffalo grass, centipede grass
- Tall fescue
- 29,000 sq. ft
- Active ingredient pendimethalin 40.26%
- Crabgrass preventer
- Crabgrass control
- Sandbur preventer
- Sandbur control]

<sup>&</sup>lt;sup>†</sup> These plants have shown tolerance to **Pendi H2O** applications of 4.2 pints (2.1 quarts) (2 lbs ai) in wildflower plantings established from seed.

# 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 HANDLING:**

[NONREFILLABLE CONTAINER (EQUAL TO OR LESS THAN 5 GALLONS): Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse 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. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration.]

[NONREFILLABLE CONTAINER (GREATER THAN 5 GALLONS): Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse 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. Turn the container over onto its other 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. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration.]

[REFILLABLE CONTAINER: Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available or reconditioning if appropriate.]

#### CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather, presence of other materials or other influencing factors in the use of the product, which are beyond the control of Axill Solutions, LLC or Seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and Buyer and User agree to hold Axill Solutions, LLC and Seller harmless for any claims relating to such factors.

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[EPA Approval Date]