70506-230

2/7/2012



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

> OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

> > FEB

7 2012

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Rebecca A. Clemmer United Phosphorus, Inc. 630 Freedom Business Center Suite 402 King of Prussia, PA 19406

Subject: Product Name: Up-End Herbicide New Product Name: Pendi Hydrocap EPA Reg. No. 70506-230 Label Notification per PRN 98-10 Application Dated: January 31, 2012

Dear Ms. Clemmer,

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 for Up-End Herbicide (EPA Reg. No. 70506-230) dated January 31, 2011. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action falls within the scope of PRN 98-10. The label submitted with the application has been stamped "Notification" and will be placed in our records.

If you have any questions, please contact Emily Hartman of my staff at (703) 347-0189 or hartman.emily@epa.gov.

Sincerely,

Kable Bo Davis, Product Manager 25 Herbicide Branch Registration Division Office of Pesticide Programs

| Please read instructions on reven  |  |  |                                   | Form                                 | Approved, OMB<br>Registrat      |                          | 60, Approval expires 5-31-98<br>OPP Identifier Number |
|--|--|--|-----------------------------------|--------------------------------------|---------------------------------|--------------------------|---|
| €EPA   | Uni<br>Environmenta                                      | ted States   | Agency                            |                                      | Amendment                       |                          |   |
|  |  | gton, DC 20460                                     |                                   | X                                    | Other                           |                          |   |
|  |  | plication for                                      |                                   | - Section                            | 1                               | 18 19 P                  | ALL NOT   |
| 1. Company/Product Number  | r  |  |                                   | Product Mana                         | ager                            | 3. Propo                 | sed Classification                                    |
| 70506-230<br>4. Company/Product (Name)   | Contraction of the second                                | 100 C  | B. Davi<br>PM #                   | S                                    |                                 | X No                     | ne Restricted   |
| United Phosphorus, Inc/Pend  | i Hydrocap   |  | 25                                | - lite d De des                      |                                 |                          |   |
| 5. Name and Address of App<br>United Phosphorus, Inc.<br>630 Freedom Business Cente<br>King of Prussia, PA 19406   |  |  |                                   | ny product is si                     |                                 |                          | RA Section 3(c)(3) osition and labeling               |
| Check if this is a new ac  | ddress   |  | Product                           |                                      |                                 |                          |   |
| and the second s |  | Se   | ection - II                       |                                      |                                 |                          |   |
| Amendment – Explain b  | elow   |  |                                   | Final printed la                     |                                 | se to                    |   |
| Resubmission in respon   | se to Agency letter dated                                | I <u></u>  |                                   | Agency letter o<br>'Me Too" Appli    |                                 | NOTI                     | FICATION  |
| X Notification – Explain be  | low  |  |                                   | Other – Explai                       | n below                         | FEB                      | -7 2012   |
| This notification is consistent to<br>to the labeling or the confiden<br>false statement to EPA. I furth<br>product may be in violation of   | tial statement of formula<br>her understand that if this | of this product.<br>notification is r              | I understand<br>not consistent    | that it is a viola<br>with the terms | ation of 18 U.S<br>of PR Notice | .C. Sec. 10<br>98-10 and | 001 to willfully make any 40 CFR 152.46, this         |
| South States States  |  | S  | ection III                        |                                      |                                 | STATES.                  |   |
| 1. Material This Product Will I  |  |  | Mater Colub                       | la Dackaging                         |                                 | 2 7.000                  | of Container  |
| Child-Resistant Packaging<br>Yes   | Unit Packaging<br>Yes                                    |  | Water Solub<br>Yes                | le Packaging                         |                                 | Me                       | of Container<br>etal<br>astic                         |
| No   | No   | 1. A. A.   | No                                |                                      |                                 |                          | ass   |
| *Certification must<br>be submitted  | If "Yes"<br>Unit Packaging wgt.                          | No. per<br>container                               | If "Yes"<br>Package wgt           |                                      | No. per<br>container            |                          | per<br>her (Specify)                                  |
| 3. Location of Net Contents In   | nformation   | 4. Size(s) R                                       | etail Containe                    | r                                    | 5. Loc                          | ation of lal             | pel directions  |
| Label  | Container  |  |                                   |                                      |                                 | On Label                 |   |
| 6. Manner in Which Label is A  | Affixed to Product                                       | Lithogr  | raph                              |                                      | Other                           | Jn Label a               | ccompanying product                                   |
|  |  | Paper  | glued                             |                                      |                                 |                          |   |
|  |  |  | ection IV                         |                                      | S. 15 10 27 11                  | North Inc.               |   |
| I. Contact Person (Complete Name   | items directly below for i                               | dentification of Title                             | individual to b                   | e contacted, if                      |                                 |                          | <i>is application.</i> )<br>nclude Area Code)         |
| Rebecca A. Clemmer   |  |  | tory Manager                      |                                      |                                 | 1-2828                   |   |
| I certify that the statements I h<br>I acknowledge that any knowin   | ave made on this form and                                | ertification<br>d all attachment<br>atement may be | s thereto are to<br>punishable by | rue, accurate a<br>fine or impriso   | nd complete.<br>nment or        | 6.                       | Date Application<br>Received                          |
| both under applicable law<br>2. Signature  |  | 3. Title   | 1                                 |                                      |                                 |                          | (Stamped)   |
| R.a. Clem  | ner  |  | tory Manager                      |                                      |                                 |                          |   |
| 4. Typed Name  | . Typed Name 5   |  |                                   |                                      | 000000                          | c                        |   |
| Rebecca A. Clemmer   |  | Jan. 31  | , 2012                            |                                      |                                 |                          |   |
| EPA Form 8570-1 (Rev. 8-94) H  | Previous editions are obsol                              | lete.  |                                   | White -                              | EPA File Copy                   | (Original)               | Yellow-Applicant Copy                                 |
|  |  |  |                                   |                                      |                                 | 00000                    | c   |
|  |  |  |                                   |                                      |                                 |                          |   |
|  |  |  |                                   |                                      |                                 |                          |   |



# **United Phosphorus, Inc.**

**630 Freedom Business Center Suite 402 King of Prussia, PA 19406** (610) 491-2828 (phone) (610) 491-2810 (fax) Rebecca A. Clemmer Regulatory Manager

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Jan. 31, 2012

Bo Kable Davis (PM 25) Document Processing Desk (NOTIF) Office of Pesticide Programs (H7504P) U.S. Environmental Protection Agency Ariel Rios Building 1200 Pennsylvania Ave., N.W. Washington, D.C., 20460

Re: Notification UP-End Herbicide (EPA Reg. No. 70506-230)

Dear Mr. Davis:

United Phosphorus, Inc. is notifying the Agency of a new primary brand name for the subject product: Pendi Hydrocap. This notification changes the product name throughout the label, and also adds the resistance category box at the top of the main panel.

In support of this Notification, enclosed please find:

- one copy of the marked label
- one clean copy of the label
- EPA form 8570-1

Please contact me if you have any questions.

Very truly yours,

R.a. Clemmer

Rebecca A. Clemmer rebecca.clemmer@uniphos.com

GROUP <u>3</u>

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HERBICIDE

# UP-EndPendi Hydrocap<sup>TM</sup>

Herbicide

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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 |  |
| OTHER INGREDIENTS:  |  |
| TOTAL   |  |
|   |  |

(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.)

#### FIRST AID

| If in eyes | <ul> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after first 5 minutes, then continue rinsing eye.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul> |
|------------|---|
|            | container or label with you when calling a poison control center or doctor or going for treatment<br>ent, call the Rocky Mountain Poison Control Center at 1-866-673-6671.  |

FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure, or accident, call CHEMTREC 1-800-424-9300.



United Phosphorus, Inc 630 Freedom Business Center, Suite 402 King of Prussia, PA 19406 1-800-247-1557 • <u>www.upi-usa.com</u> EPA Reg. No. 70506-230 EPA Est. No.

Net Contents : gallons

## NOTIFICATION

FEB -7 2012

#### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS

#### CAUTION

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

#### **Personal Protective Equipment (PPE):**

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

Applicators and other handlers must wear:

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

#### Shoes plus socks

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

#### ENGINEERING CONTROLS

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

#### USER SAFETY RECOMMENDATIONS

#### Users should:

• Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.

- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as
  possible, wash thoroughly and change into clean clothing.

#### ENVIRONMENTAL HAZARDS

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

#### **DIRECTIONS FOR USE**

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

Do not apply this product through any type of irrigation system.

UPI 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 <u>UP-END herbicidePendi Hydrocap</u> in greenhouses, shadehouses or other enclosed structures.

Not for use for commercial seed production.

#### AGRICULTURAL USE REQUIREMENTS

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

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

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

Coveralls

- Chemical-resistant gloves made of any waterproof material such as nitrile, butyl, neoprene, and/or barrier laminate
- · Shoes plus socks

#### NON-AGRICULTURAL USE REQUIREMENTS

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

Do not enter treated areas without protective clothing until sprays have dried.

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

#### **MODE OF ACTION**

**UP-EndPendi Hydrocap** 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.

#### **PRODUCT INFORMATION**

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

Turfgrass sites (golf course, 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, alleyways, bike and jogging paths, vacant lots, buildings, stone gardens and gravel yards, markers and fence lines, and mulch beds. It may be used under asphalt or concrete treatments as part of a site preparation program.

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**

**UP-EndPendi Hydrocap** will not control established weeds. Therefore, areas to be treated should be free of established weeds at the time of treatment, or use **UP-EndPendi Hydrocap** 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 **UP-EndPendi Hydrocap** will be best if the application is followed by one-half inch of rainfall or its equivalent in sprinkler irrigation. If **UP-EndPendi Hydrocap** 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, <u>UP-EndPendi Hydrocap</u> or <u>UP-EndPendi Hydrocap</u> 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 UP-EndPendi Hydrocap.

#### MIXING INSTRUCTIONS

**UP-EndPendi Hydrocap** 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 **UP-EndPendi Hydrocap** alone.

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

#### **Mixing Instructions**

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

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

- 3. UP-EndPendi Hydrocap Tank Mixes
  - Add the tank mixture ingredients in the order listed below before adding UP-EndPendi Hydrocap:
  - (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 UP-EndPendi Hydrocap 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 UP-EndPendi Hydrocap. 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 **UP-EndPendi <u>Hvdrocap</u>** 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.

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.

#### SENSITIVE AREAS

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

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#### Application Rates For Preemergence Weed Control

| Weeds   | fl. oz.   |   |  |
|---|---|---|--|
|   | Product per<br>1,000 sq.ft.   | pints<br>Product per acre   | _ Comments   |
| RASSES  |   | and a loss of the second second   |  |
| Bluegrass, Kentucky Barnyardgrass   |   | Turf Uses:  | Make a repeat  |
| Crabgrass   | 1.1 to 1.6 fl oz  | 3.1 to 4.2 pints  | application of 2.2 to 3.1  |
| Evening Primrose<br>Fall Panicum<br>Foxtail<br>Hop Clover<br>Knotweed<br>Oxalis<br><i>Poa annua</i><br>Prostrate Spurge<br>Purslane | Initial application be<br>spring.   | efore weed germination in   | pints/A (0.86 to 1.1<br>oz/1000 sq. ft.) after 5-8<br>weeks for extended<br>control or where heavy<br>weed infestations are<br>expected.   |
| Goosegrass  |   |   | Make a repeat  |
| Contraction of the second   |   |   | application of 3.1   |
| 130 100 100   | 1.1 to 1.6 fl oz  | 3.1 to 4.2 pints  | pints/Acre (1.1 oz/1000  |
|   | Residentia  | l Turf Uses Only:   | sq. ft.) if the lower rate<br>was used initially or for  |
|   |   |   | extended goosegrass<br>control after 5-8 weeks.  |
|   | spring.   |   |  |
|   | All Turf Uses:  |   | Apply in late summer or  |
| Com Speedwell<br>Cudweed<br>Henbit<br>Lawn Burweed<br><i>Poa annua</i> l  | 1.1 to 1.6 fl 62  | 5.1 to 4.2 pints  | early fall before weed<br>germination. Apply a<br>repeat application of 3.1<br>to 4.2 pints (1.1 to 1.6<br>oz/1,000 sq. ft.) after 5-8<br>weeks for extended <i>Poa</i><br><i>annua</i> control.   |
| Barnyardgrass   | All Turf Uses<br>(Non-Greens and Tees):<br>1.1 fl oz 3.1 pints  |   | Make a repeat<br>application of 2.2 to 3.1   |
| Crabgrass   |   |   |  |
| •   |   |   | pints/Acre (0.86 to 1.1  |
| Fall Panicum<br>Foxtail<br>Hop Clover<br>Knotweed<br><i>Poa annua</i><br>Oxalis<br>Prostrate Spurge<br>Purslane                     | Initial application be<br>spring.   | fore weed germination in  | oz/1000 sq. ft.) after 5-8<br>weeks for extended<br>control or where heavy<br>weed infestations are<br>expected.   |
| Goosegrass  |   |   | Apply a repeat   |
|   |   |   | application of 3.1<br>pts/Acre (1.1 oz/1000 sq.  |
|   | 1.1 fl oz     3.1 pints       Initial application before weed germination in spring.  |   | ft.) for extended<br>goosegrass control after<br>5-8 weeks.  |
| Chickweed   | All   | Turf Uses   | Apply in late summer or  |
| Corn Speedwell<br>Cudweed<br>Henbit<br>Lawn Burweed   | (Non-G)<br>1.1 to 1.6 fl oz   | 3.1 to 4.2 pints  | early fall before weed germination.  |
|   | Barnyardgrass         Crabgrass         Evening Primrose         Fall Panicum         Foxtail         Hop Clover         Knotweed         Oxalis         Poa annua         Prostrate Spurge         Purslane         Goosegrass         Chickweed         Corn Speedwell         Cudweed         Henbit         Lawn Burweed         Poa annual         Barnyardgrass         Crabgrass         Evening Primrose         Fall Panicum         Foxtail         Hop Clover         Knotweed         Poa annua         Oxalis         Prostrate Spurge         Purslane         Goosegrass | RASSES         Barnyardgrass       All         Crabgrass       I.1 to 1.6 fl oz         Evening Primrose       Initial application be         Fall Panicum       spring.         Foxtail       Hop Clover         Knotweed       Oxalis         Poa annua       Prostrate Spurge         Purslane       Golf Course, Con         Residentia       1.1 to 1.6 fl oz         Goosegrass       Residentia         I.1 to 2.3 oz       Initial application be         Spring.       Chickweed         Chickweed       All         Corn Speedwell       I.1 to 1.6 fl oz         Cudweed       Henbit         Lawn Burweed       Poa annua         Poa annua       Initial application be         Fall Panicum       Fill application be         Foxtail       Initial application be         Poa annua       Initial application be         Oxalis       Prostrate Spurge         Purslane       Initial application be         Goosegrass       All         (Non-Gr       Initial application be         spring.       Initial application be         Spring.       Initial application be         Chickweed <t< td=""><td>All Turf Uses:         All Turf Uses:         Crabgrass       1.1 to 1.6 fl oz       3.1 to 4.2 pints         Evening Primrose       Initial application before weed germination in spring.         Fold Cover       Knotweed         Knotweed       Oxalis         Poa annua       Prostrate Spurge         Purslane       Residential and Sod Farm         Goosegrass       Residential and Other Non-Residential Turf Uses Only?:         1.1 to 1.6 fl oz       3.1 to 4.2 pints         Goff Course, Commercial and Other Non-Residential Turf Uses Only:       1.1 to 2.3 oz         1.1 to 1.6 fl oz       3.1 to 4.2 pints         Initial application before weed germination in spring.       Solution of the Non-Residential Turf Uses Only:         Chickweed       All Turf Uses:         Corn Speedwell       1.1 to 1.6 fl oz         Chickweed       All Turf Uses         Corn Speedwell       1.1 to 1.6 fl oz         Chickweed       1.1 fl oz         Poa annual       3.1 to 4.2 pints         Barnyardgrass       All Turf Uses         Chickweed       1.1 fl oz         Poa annua       3.1 pints         Natial application before weed germination in spring.         Goosegrass       All Turf Uses     <!--</td--></td></t<> | All Turf Uses:         All Turf Uses:         Crabgrass       1.1 to 1.6 fl oz       3.1 to 4.2 pints         Evening Primrose       Initial application before weed germination in spring.         Fold Cover       Knotweed         Knotweed       Oxalis         Poa annua       Prostrate Spurge         Purslane       Residential and Sod Farm         Goosegrass       Residential and Other Non-Residential Turf Uses Only?:         1.1 to 1.6 fl oz       3.1 to 4.2 pints         Goff Course, Commercial and Other Non-Residential Turf Uses Only:       1.1 to 2.3 oz         1.1 to 1.6 fl oz       3.1 to 4.2 pints         Initial application before weed germination in spring.       Solution of the Non-Residential Turf Uses Only:         Chickweed       All Turf Uses:         Corn Speedwell       1.1 to 1.6 fl oz         Chickweed       All Turf Uses         Corn Speedwell       1.1 to 1.6 fl oz         Chickweed       1.1 fl oz         Poa annual       3.1 to 4.2 pints         Barnyardgrass       All Turf Uses         Chickweed       1.1 fl oz         Poa annua       3.1 pints         Natial application before weed germination in spring.         Goosegrass       All Turf Uses </td |

|   | UP-  | END herbicidePendi   | Hydrocap  |   |
|---|--|--|---|---|
| Turfgrass Species                             | Weeds  | fl. oz.  | pints   | Comments  |
|   |  | Product per<br>1,000 sq.ft.  | Product per acre  |   |
| WARM SEASON G                                 | RASSES   |  |   | Station of the state  |
| Bahiagrass<br>Bermudagrass                    | Barnyardgrass<br>Crabgrass                                       | Resident<br>Tur  | Make a repeat<br>application of 2.2 to 3.1  |   |
| Buffalograss                                  | Evening Primrose   | 1.1 to 1.6fl oz  | 3.1 to 4.2 pints  | pints/Acre (0.86 to 1.1   |
| Centipedegrass<br>Fescue, Tall                | Fall Panicum<br>Foxtail  |  | nmercial and Other Non-<br>al Turf Uses Only:                                       | oz/1000 sq. ft.) after 5-8<br>weeks if necessary.   |
| Paspalum,                                     | Hop Clover   | 1.1 to 2.3 fl oz   | 3.1 to 6.3 pints  |   |
| seashore<br>St. Augustinegrass<br>Zoysiagrass | Knotweed<br>Poa annua<br>Oxalis<br>Prostrate Spurge<br>Purslane  | Initial application before weed germination in spring.                       |   |   |
|   | Goosegrass   | All Turf Uses<br>(Non-Greens and Tees):                                      |   | An additional application<br>of 3.1 pt/Acre (1.1  |
|   | 1  | 1.1 fl oz  | 3.1 pints   | oz/1000 sq. ft.) may be   |
|   |  | Apply before weed  | made for extended<br>goosegrass control 8<br>weeks after the second<br>application. |   |
|   |  | Make a second application at 3.1 pints (1.1 oz/1000 sq.ft.) 5-8 weeks later. |   |   |
|   | Chickweed  | All Turf Uses:   |   | Apply in late summer or   |
|   | Corn Speedwell<br>Cudweed<br>Henbit<br>Lawn Burweed<br>Poa annua | 1.1 to 1.6 fl oz   | 3.1 to 4.2 pints  | early fall before weed<br>germination. Make a<br>repeat application of 3.1<br>to 4.2 pints (1.1 to 1.6<br>oz/1,000 sq. ft.) 5-8<br>weeks for extended <i>Poa</i><br><i>annua</i> control. |

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

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

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

The efficacy of <u>UP-EndPendi Hydrocap</u> is best if the application is followed by one-half inch of rainfall or its equivalent in sprinkler irrigation. If <u>UP-EndPendi Hydrocap</u> 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, <u>Do not rub or scrub surface</u>, <u>but rinse area immediately</u> <u>using a heavy spray of water</u> to avoid staining. Allow treated turfgrass to dry before entering to avoid staining non-treated surfaces.

#### TURFGRASS TANK MIXES

**UP-EndPendi Hydrocap** can be mixed with postemergence herbicides to control emerged weeds in non-residential turfgrasses. For annual grass control, applications can be made with DRIVE<sup>®</sup> 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 UP-EndPendi Hydrocap 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 UP-END herbicidePendi Hydrocap application.
- Delay sprigging turfgrass for five (5) months after application.

#### LANDSCAPE AND GROUNDS MAINTENANCE

**UP-EndPendi Hvdrocap** 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 **UP-EndPendi Hvdrocap** 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 **UP-EndPendi Hydrocap** 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 **UP-EndPendi Hydrocap** 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. **UP-EndPendi Hydrocap** may be used for hardwood and conifer regeneration on conservation reserve program (CRP) land. **UP-EndPendi Hydrocap** 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 UP-EndPendi Hydrocap 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 <u>UP-EndPendi Hydrocap</u> plus VANTAGE<sup>®</sup>, Roundup<sup>®</sup>, Finale<sup>®</sup>, or other labeled herbicides. Refer to approved labeling for species recommendations. Determine rates for the tank mix compounds from the product labels of both <u>UP-EndPendi Hydrocap</u> and partner herbicides before use. Take care to prevent combination sprays from direct contact with desirable foliage or injury may result. <u>UP-EndPendi Hydrocap</u> plus diuron or simazine combinations will broaden weed control spectrum, however, use of combinations may restrict <u>UP-EndPendi Hydrocap</u> 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**

**UP-EndPendi Hydrocap** 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 **UP-EndPendi Hydrocap** before, during or after bulb emergence. If weeds have already germinated add a labeled postemergence herbicide to control emerged weeds.

#### WILDFLOWERS

**UP-EndPendi Hydrocap** 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 **UP-EndPendi Hydrocap** at 4.2 pints (2.1 quarts) per acre. **UP-EndPendi Hydrocap** may be applied to established perennial wildflowers before emergence of weeds or wildflowers. For wildflowers being established from seed, apply **UP-EndPendi Hydrocap** 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 UP-EndPendi Hydrocap may vary greatly. Test desirable species carefully to determine if area-wide applications can be made.

#### NON-BEARING FRUIT AND NUTCROPS AND VINEYARDS

**UP-EndPendi Hvdrocap** 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 **UP-End herbicidePendi Hvdrocap** 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

**UP-EndPendi Hvdrocap** 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<sup>®</sup>, VANTAGE<sup>®</sup>, 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

**UP-EndPendi Hydrocap** may be tank mixed with ARSENAL<sup>®</sup>, SAHARA<sup>®</sup>, PLATEAU<sup>®</sup>, VANTAGE<sup>®</sup>, Roundup<sup>®</sup> PRO, Karmex<sup>®</sup>, Finale<sup>®</sup>, Oust<sup>®</sup>, diuron, glyphosate or other products to provide bare ground, or total vegetation control. **UP-EndPendi Hydrocap** 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 <u>UP-EndPendi Hydrocap</u> 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\*

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For preemergence control of the weed species listed, apply UP-EndPendi Hvdrocap as follows:

| Length of Control                  | Product per<br>Acre | Product per 1000 sq. ft. |
|------------------------------------|---------------------|--------------------------|
| Short Term Control<br>(2-4 months) | 2.1 Quarts          | 1.6 fl. oz.              |
| Long Term Control<br>(6-8 months)  | 4.2 Quarts          | 3.2 fl. oz.              |

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

For extended weed control, repeat applications of UP-EndPendi Hydrocap can be made.

#### INSTRUCTIONS AND RESTRICTIONS

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

| Site                             | Application Instructions and Restrictions   |
|----------------------------------|---|
| Landscape Plantings <sup>2</sup> | <ol> <li>Do not apply to newly-transplanted ornamentals until plants have been watered and soil has been<br/>thoroughly packed and settled around roots.</li> </ol> |
|                                  | 2. Apply as a directed or over-the-top spray.   |
|                                  | <ol> <li>Use the lowest labeled rate when making applications to annuals. Repeat applications can be made<br/>for extended landscape weed control.</li> </ol>       |
| Ornamental Bulbs <sup>3</sup>    | 1. UP-EndPendi Hydrocap 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>         | 1. UP-EndPendi Hydrocap 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.                               |

<sup>1</sup> Plant only those desirable plant species listed on this label into soil treated the previous season with <u>UP-EndPendi</u> <u>Hydrocap</u> or injury may occur.

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

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

#### HAND-HELD SPRAY EQUIPMENT:

Use table 2 above to determine the amount of **UP-EndPendi Hydrocap** 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.

**UP-EndPendi Hydrocap** 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. **UP-EndPendi Hydrocap** 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 **UP-EndPendi Hydrocap** treatment may be followed by any registered herbicide to control weeds not listed on the **UP-EndPendi Hydrocap** label.

The efficacy of **UP-EndPendi Hydrocap** 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 **UP-EndPendi Hydrocap** is not activated by rainfall or irrigation within 30 days.

The following grass and broadleaf weeds are controlled by preemergence treatments of UP-End herbicidePendi Hydrocap at the above-specified rates:

| GRASSES CONTROLLED       Common Name     Scientific Name |                   | Bluegrass, Annual | Poa annua<br>Digitaria spp.<br>Dactyloctenium |
|--|-------------------|-------------------|---|
|  |                   | Crabgrass         |   |
| Barnyardgrass  | Echinochloa crus- | Crowfootgrass     | aegyptium                                     |
|  | galli             | Foxtail, Giant    | Setaria faberi                                |

| Foxtail, Green           | Setaria viridis       | Chickweed, Mouseear     | Cerastium vulgatum   |
|--------------------------|-----------------------|-------------------------|----------------------|
| Foxtail, Yellow          | Setaria glauca        | Clover, Hop             | Trifolium procumbens |
| Goosegrass               | Eleusine indica       | Cudweed                 | Gnaphalium spp.      |
| Itchgrass                | Rottboellia exaltata  | Evening primrose        | Oenothera biennis    |
| Johnsongrass (from seed) | Sorghum halepense     | Fiddleneck              | Amsinckia intermedia |
| Junglerice               | Echinochloa colona    | Filaree                 | Erodium spp.         |
| Lovegrass (from seed)    | Eragrostis spp.       | Henbit                  | Lamium amplexicaule  |
| Panicum, Browntop        | Panicum fasciculatum  | Knotweed, prostrate     | Polygonum aviculare  |
| Panicum, Fall            | Panicum               | Kochia                  | Kochia scoparia      |
|                          | dichotomiflorum       | Lambsquarters           | Chenopodium album    |
| Panicum, Texas           | Panicum texanum       | Pigweed                 | Amaranthus spp.      |
| Sandbur, Field           | Cenchrus incertus     | Puncturevine            | Tribulus terrestris  |
| Signalgrass              | Brachiaria            | Purslane                | Portulaca oleracea   |
|                          | platyphylla           | Pusley, Florida         | Richardia scabra     |
| Sprangletop, Mexican     | Leptochloa uninervia  | Rocket, London          | Sisymbrium irio      |
| Sprangletop, Red         | Leptochloa filiformis | Shepherdspurse          | Capsella bursa-      |
| Witchgrass               | Panicum capillare     |                         | pastoris             |
| Woolly Cupgrass          | Eriochloa villosa     | Smartweed, Pennsylvania | Polygonum            |
| BROADLEAF WEEDS C        | ONTROLLED             |                         | pensylvanicum        |
|                          |                       | Speedwell, Corn         | Veronica arvensis    |
| Common Name              | Scientific Name       | Spurge, Annual          | Euphorbia spp.       |
| Burweed, Lawn            | Soliva pterosperma    | Spurge, Prostrate       | Euphorbia humistrata |

#### **COMMERCIAL ORNAMENTAL PRODUCTION**

Woodsorrel, Yellow

Velvetleaf (Buttonweed)

Oxalis stricta

Abutilon theophrasti

Mollugo verticillata

Stellaria media

#### **GENERAL INFORMATION**

Carpetweed

Chickweed, Common

Application Use Sites: UP-EndPendi Hydrocap can be used in and around field, liner and container ornamental production.

**UP-EndPendi Hydrocap** 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 **UP-EndPendi Hydrocap**. 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**

**UP-EndPendi Hydrocap** will not control established weeds. Therefore, ensure that areas to be treated are free of established weeds at the time of treatment, or **UP-EndPendi Hydrocap** 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 <u>UP-EndPendi Hydrocap</u> will be best if the application is followed by one-half inch of rainfall or its equivalent in sprinkler irrigation. If <u>UP-EndPendi Hydrocap</u> 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, **UP-EndPendi Hydrocap** or **UP-EndPendi Hydrocap** 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 UP-EndPendi Hydrocap.

#### 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<br>Field-Grown                                     | 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.  |
| Nursery Stock <sup>2,3</sup>  | <ol> <li>Do not apply until transplants have been watered and soil has been thoroughly packed and<br/>settled around transplants. Take care to ensure there are no cracks in the soil where UP-End<br/>herbieidePendi Hydrocap could come into contact with the roots.</li> </ol> |
|   | 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.  |
| Newly-Transplanted<br>Container-Grown<br>Nursery Stock <sup>2,3</sup> | <ol> <li>Do not apply until transplants have been watered and soil has been thoroughly packed and<br/>settled around transplants. Care must be taken to ensure there are no cracks in the soil where UP<br/>EndPendi Hvdrocap could come into contact with the roots.</li> </ol>  |
|   | 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   | 1. Do not apply during bud swell, bud break or at time of first flush of new growth.  |
| Container, or Field-<br>Grown Nursery                                 | 2. Apply as a directed or over-the-top spray.   |
| Stock <sup>2, 3</sup>   | 3. If newly budded or graphed rootstock, make an application using a shielded sprayer.  |
| DIOUX   | 4. Take care to ensure there are no cracks in the soil where UP-EndPendi Hydrocap could come into contact with the roots.   |
| Bare Ground for<br>Container Placement                                | 1. Apply to soil then water in (including mulch, gravel, wood chips, or other permeable base), replace containerized ornamentals onto pad.  |

<sup>1</sup> Plant only those desirable plant species listed on this label into soil treated the previous season with <u>UP-EndPendi</u> <u>Hydrocap</u> or injury may occur.

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

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

#### **ORNAMENTAL TANK MIXES**

Emerged weeds in ornamentals can be controlled using tank mixes containing VANTAGE<sup>®</sup>, Roundup<sup>®</sup>, Finale<sup>®</sup>, Ornamec<sup>®</sup>, Gallery<sup>®</sup>, Princep<sup>®</sup>, 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 UP-End herbicidePendi Hydrocap and follow those that are most restrictive.

#### CHRISTMAS TREE PLANTATIONS

**UP-EndPendi Hydrocap** may be used in and around Christmas tree plantations. **UP-EndPendi Hydrocap** 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 **UP-EndPendi Hydrocap** from directly contacting the tree roots or being washed into the root zone via the open slit or root stunting may occur.

For postemergence control of weeds, use tank-mix combinations of **UP-EndPendi Hydrocap** 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 **UP-EndPendi Hydrocap** and partner herbicides before use. Precaution must be exercised to prevent combination sprays from direct contact with desirable foliage or injury may result. UP-EndPendi Hydrocap plus diuron or simazine combinations will broaden weed control spectrum; however, use of combinations may restrict UP-EndPendi Hydrocap 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**

**UP-EndPendi Hvdrocap** 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. **UP-EndPendi Hvdrocap** may be tank mixed with VANTAGE, Roundup PRO, Karmex<sup>®3</sup>, Finale<sup>®4</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 UP-EndPendi Hydrocap at the following rates:

| Length of Control                  | Product per<br>Acre | Product per<br>1000 sq. ft. |
|------------------------------------|---------------------|-----------------------------|
| Short Term Control<br>(2-4 months) | 2.1 Quarts          | 1.6 fl. oz.                 |
| Long Term Control<br>(6-8 months)  | 4.2 Quarts          | 3.2 fl. oz.                 |

\*For extended weed control, repeat applications of UP-EndPendi Hydrocap can be made.

#### HAND-HELD SPRAY EQUIPMENT:

Use the table above to determine the amount of **UP-EndPendi Hydrocap** 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.

**UP-EndPendi Hydrocap** 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. **UP-EndPendi Hydrocap** 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 **UP-EndPendi Hydrocap** treatment may be followed by any registered herbicide to control weeds not listed on the **UP-EndPendi Hydrocap** label.

The efficacy of UP-EndPendi Hydrocap 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 UP-EndPendi Hydrocap is not activated by rainfall or irrigation within 30 days.

The following grass and broadleaf weeds are controlled by preemergence treatments of UP-EndPendi Hydrocap at the above-specified rates:

#### **GRASSES CONTROLLED**

| Common Name       | Scientific Name             |
|-------------------|-----------------------------|
| Barnyardgrass     | Echinochloa<br>crus-galli   |
| Bluegrass, Annual | Poa annua                   |
| Crabgrass         | Digitaria spp.              |
| Crowfootgrass     | Dactyloctenium<br>aegyptium |
| Foxtail, Giant    | Setaria faberi              |
| Foxtail, Green    | Setaria viridis             |

Foxtail, Yellow Goosegrass Itchgrass Johnsongrass (from seed) Junglerice Lovegrass (from seed) Panicum, Browntop Panicum, Fall

Panicum, Texas Sandbur, Field Setaria glauca Eleusine indica Rottboellia exaltata Sorghum halepense Echinochloa colona Eragrostis spp. Panicum fasciculatum Panicum dichotomiflorum Panicum texanum Cenchrus incertus

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#### Signalgrass

Sprangletop, Mexican Sprangletop, Red Witchgrass Woolly Cupgrass

### Eriochloa villosa **BROADLEAF WEEDS CONTROLLED**

Brachiaria

platyphylla

Leptochloa uninervia

Leptochloa filiformis

Panicum capillare

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

#### **Table 4. ORNAMENTAL SPECIES**

UP-End herbicidePendi Hydrocap 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           |
|-----------------------|---------------------------|
| Alder, European Black | Alnus glutinosa           |
| Apple                 | Malus spp.                |
| Arborvitae, American  | Thuja occidentalis        |
| Arbutus               | Arbutus spp.              |
| Ash, Red              | Fraxinus<br>pennsylvanica |

Ash, White Aspen, Bigtooth

Aspen, Quaking Basswood Birch, European Weeping Birch, River

#### **TREES** (continued)

**Common Name** Buckeye, Red Cedar, White Chamaecyparis, Boulevard

Cherry, Black Cherry, Choke Cherry, Kwanzan Cherry, Nanking Cottonwood Crabapple Crepe Myrtle Cryptomeria, Japanese Cedar Cypress, Bald Cypress, Leyland

Dogwood, Flowering Dogwood, Korean Dogwood, Silky Dogwood, Shrub Elm Elm, Winged Eucalyptus (Silver-dollar) tree Eucalyptus cinerea Fir. Balsam Fir, Douglas Fir, Fraser Fir, White Franklinia Fringe tree Ginkgo Gum, Black Gum, Sour Haw, Black Hawthorn Hemlock, Canada Hemlock, Eastern Holly, American Honeylocust Lilac, Common

Lilac, Japanese Tree

Linden

Fraxinus americana Populus grandidentata Populus tremuloides

# Tilia spp.

Betula pendula Betula nigra

**Scientific Name** 

Aesculus pavia

Pas

Thuja occidentalis Chamaecyparis pisifera Prunus serotina Prunus virginiana Prunus serrulata Prunus tomentosa Populus deltoides Malus spp. Lagerstroemia indica Cryptomeria japonica Taxodium distichum Cupressocyparis leylandii Cornus florida Cornus kousa Cornus amomum Cornus spp. Ulmus japonica Ulmus alata Abies balsamae Pseudotsuga menziesii Abies fraseri Abies concolor Franklinia spp. Chlonenthus retusus Ginkgo biloba Nyssa sylvatica Nyssa sylvatica Viburnum prunifolium Crataegus spp. Tsuga canadensis Tsuga canadensis Ilex opaca Gleditsia triacanthos Syringa vulgaris Syringa reticulata Tilia spp.

#### Magnolia, Saucer

Magnolia, Southern Magnolia, Star Maidenhair Tree Maple, Norway Maple, Japanese Maple, Red Maple, Sugar

#### TREES (continued) Common Name

Nannyberry, Rusty Oak, Chinquapin

- Oak, Live Oak, Pin Oak, Red Oak, Swamp Chestnut Oak, Water Oak, White Oak, Willow Olive Palm, Date Palm, Fan Palm, Pindo Palm, Washington Peach Pear, Bradford
- Pecan Pine, Austrian Pine, Italian Stone Pine, Loblolly Pine, Monterey Pine, Red Pine, Scotch Pine, Virginia Pine, White Plum, Purple Leaf Poplar, Black Redcedar, Eastern Redcedar, Western Red Ironbark

Redwood, Dawn Sequoia, Giant

Serviceberry Sourwood

Spruce, Colorado Blue

Magnolia soulangiana Magnolia grandiflora Magnolia stellata Ginkgo biloba Acer platanoides Acer palmatum Acer rubrum Acer saccharum

Scientific Name

muehlenbergii

Quercus virginiana

Quercus palustris

Quercus michauxii

Quercus rubra

Quercus nigra

Quercus alba

Quercus phellos

Olea europaea

Washingtonia spp.

Washingtonia spp.

Prunus persica

'Bradford'

Pinus nigra

Pinus pinea

Pinus taeda

Pinus radiata

Pinus resinosa

Pinus sylvestris

Pinus virginiana

Prunus cerasifera

Juniperus virginiana

sideroxylon 'Rosea'

glyptostroboides

Amelanchier laevis

Sequoiadendron

Pinus strobus

Populus nigra

Thuja plicata

Metasequoia

giganteum

Oxydendrum

arboreum

Picea pungens

Eucalyptus

Pyrus calleryana

Carya illinoensis

Phoenix spp.

Butia spp.

Quercus

Viburnum rufidulum

Spruce, Dwarf Alberta

- Spruce, Norway Spruce, White Sweetgum
- Sycamore Trachycarpus Tulip tree

#### **TREES** (continued)

Common Name Walnut, Black Willow, Weeping Yellowwood

#### SHRUBS

Common Name Abelia, Glossy Alder, Witch

Aucuba, Gold Azalea Bamboo, Heavenly Barberry

Barberry, Japanese Blue Indigo Bush Bottlebrush, Lemon Boxwood, Common Boxwood, Japanese Brittlebush Buttonbush

Camellia Cape Jasmine Cassia, Feathery Cordyline Correa Cotoneaster

Cotoneaster, Bayberry Cotoneaster, Rock

Cypress, Italian

Cypress, Leyland

Deutzia, Slender Dogwood, Red Twig Elaeagnus Escallonia Euonymus Picea glauca 'albertiana' Picea abies Picea glauca Liquidambar styraciflua Platanus occidentalis Trachycarpus spp. Liriodendron tulipifera

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#### (continueu)

Scientific Name Juglans nigra Salix babylonica Cladrastis lutea

#### Scientific Name

Abelia grandiflora Fothergilla gardenii Aucuba japonica Rhododendron sp. Nandina domestica Berberis gladwynensis Berberis thunbergii Dalea gregii Callistemon citrinus Buxus sempervirens Buxus microphylla Encelia farinosa Cephalanthus occidentalis Camellia japonica Gardenia jasminoides Cassia artemisioides Cordyline spp. Correa spp. Cotoneaster apiculatus Cotoneaster dammeri Cotoneaster horizontalis Cupressus sempervirens Cupressocyparis leylandii Deutzia gracilis Cornus sericea Elaeagnus ebbingei Escallonia fradesii Euonymus fortunei

Euonymus, Golden Euonymus, Winged Firethorn Forsythia, Border Fragrant Olive Fuschia, California

Gardenia Hawthorne, Indian Hibiscus Holly, Chinese

#### SHRUBS (continued)

Common Name Holly, Japanese Holly, Fosters Holly, Savannah Holly, Yaupon Honeysuckle, Bush Hopseed Bush Hopbush Hydrangea

Juniper Juniper, Chinese

Juniper, Shore Juniper, Trailing Laurel, Cherry Laurel, Mountain Laurel, Otto Luyken Laurel, Schipka Laurustinus Lavender, English

#### Leucothoe

Leucothoe, Coast Lilac, Cut-leaf Lily-of-the-Nile Mahonia Mock Orange Myrtle, Compact Myrtle, Wax Nandina Oleander Oregon Grape Osmanthus Palm, European Fan Palm, Mediterranean Fan Phlox, Prickly Euonymus japonica Euonymus alata Pyracantha coccinea Forsythia intermedia Osmanthus fragrans Zauschineria californica Gardenia jasminoides Raphiolepis indica Hibiscus syriacus Ilex cornuta

**Scientific Name** 

Ilex attenuata 'Fosteri'

Ilex crenata

Ilex attenuata

Ilex vomitoria

Hydrangea macrophylla

Juniperus sp.

pfitzer

Diervilla lonicera

Dodonaea viscosa

Dodonaea viscosa

Juniperus chinensis v.

Juniperus horizontalis

Prunus laurocerasus

Prunus laurocerasus

Prunus schipkanensis

Kalmia latifolia

Viburnum tinus

angustifolia

fontanesiana

Leucothoe axillaris

Agapanthus africanus

Mahonia aquifolium

Pittosporum tobira

Nandina domestica

Mahonia aquifolium

Osmanthus fragrans

Chamaerops humilis

Chamaerops spp. Leptodactylon

californicum

Myrtus communis

Myrica cerifera

Nerium oleander

Syringa laciniata

Lavandula

Leucothoe

Juniperus conferta

Photinia, Fraser Pieris, Japanese Pine, Mugo Plum, Natal Privet, California Privet, Glossy Privet, Variegated Privet, Waxleaf Pyracantha Quince, Flowering

Ranger, Texas

#### SHRUBS (continued)

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

Yucca, Adam's Needle Yucca, Weeping

\* Do not apply UP-End herbicidePendi Hydrocap during spring growth or injury to terminals may occur.

#### **GROUND COVERS**

| Common Name        | Scientific Name<br>Ajuga reptans |  |
|--------------------|----------------------------------|--|
| Ajuga              |                                  |  |
| Baby Sun Rose      | Aptenia cordifolia               |  |
| Beach Strawberry   | Fragaria chiloensis              |  |
| Capeweed           | Arctotheca calendula             |  |
| Cinquefoil, Spring | Potentilla verna                 |  |
| Coyotebrush, Dwarf | Baccharis pitularis              |  |
|                    |                                  |  |

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Photinia x Fraseri Pieris japonica Pinus mugo Carissa grandiflora Ligustrum ovalifolium Ligustrum lucidum Ligustrum sinensis Ligustrum sinensis Ligustrum japonicum Pyracantha coccinea Chaenomeles japonica Leucophyllum

#### Scientific Name

frutescens

Ceanothus spp. Rhododendron spp. Pittosporum tobira Rosa spp. Illicium parviflorum Spiraea vanhouttei Spiraea X bumalda Spiraea japonica Laurus nobilis Tecoma stans Aloysia triphylla Viburnum suspensum Vitex spp. Weigela florida Ceanothus spp. Wisteria spp. Xylosma congestum Tecoma stans Taxus media Taxus cuspidata Podocarpus macrophyllus Yucca filamentosa Yucca pendula

#### Daisy, Trailing African

#### Dymondia

Gazania Iceplant, Large Leaf Ivy, English Ivy, Geranium Jasmine, Asiatic

Jasmine, Primrose Jessamine, Carolina

Manzanita, Bearberry

#### **GROUND COVERS (continued)**

| Common Name             | Scientific Name            |  |
|-------------------------|----------------------------|--|
| Miscanthus              | Miscanthus spp.            |  |
| Mondograss              | Ophiopogon japonica        |  |
| Morning glory           | Convolvulus spp.           |  |
| Myoporum                | Myoporum<br>parviflolium   |  |
| Pachysandra             | Pachysandra<br>terminalis  |  |
| Potentilla              | Potentilla fruticosa       |  |
| Red Apple               | Aptenia cordifolia         |  |
| Rosemary                | Rosemarinus<br>officinalis |  |
| Rose-Of-Sharon          | Hypericum calycinum        |  |
| Sand Strawberry         | Fragaria chiloensis        |  |
| Sedum                   | Sedum spurium              |  |
| St. Johnswort, Creeping | Hypericum calycinum        |  |
| Stonecrop               | Sedum spurium              |  |
| Verbena, Peruvian       | Verbena peruviana          |  |
| Vervain                 | Verbena peruviana          |  |
| Vetch, Crown            | Vicia sativa               |  |
| Vinca                   | Vinca minor                |  |
| Wintercreeper           | Euonymous fortunei         |  |

#### PERENNIALS Common Name

Acacia Asparagus Aster, New York Aster, Stokes Astilibe (False Spirea) Avens Baby's Breath Baby's Breath

Beard-Tongue Bellflower fruticosum Dymondia margaretae Gazania splendens Carpobrotus edulis Hedera helix Pelargonium peltatum Trachelospermum asiaticum Jasminum mesnyi Gelsemium sempervirens

Arctostaphylos

**Scientific Name** 

Acacia redolens

Asparagus spp.

Stokesia laevis

Geum triflorum

Gypsophila elegans

Astilibe spp.

Gypsophila

paniculata

Penstemon spp.

Campanula spp.

Aster novi-belgii

uva-ursi

Osteospermum

Bellflower, Willow

Bird of Paradise

Black-eyed Susan<sup>†</sup> Blanket Flower<sup>†</sup> Blanket Flower<sup>†</sup>

Bleeding Heart Butterfly Weed California Poppy

Calla Lily

Canna, Common Garden

#### **PERENNIALS** (continued)

**Common Name** Carex Chincherinchee Clover, Crimson† Columbine Columbine Coreopsis (tickseed)† Crinum Lily Crocus Daffodil Daylily Fairy Duster Fern, Asparagus Fern, Boston Fern, Hay-scented Fern, Leatherleaf\* Fortnight Lily Foxglove Freesia Gaillardia Geum Gladiolus Heather, Dwarf Hosta Indian Blanket†

Iris, Japanese Lantana, Weeping

Leopards Bane Lily Liriope, Big Blue Campanula persicifolia Caesalpinia pulcherrima Rudbeckia hirta Gaillardia aristata Gaillardia x grandiflora Dicentra spectabilis Asclepias tuberosa Eschscholzia california Zantedeschia aethiopica

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Canna generalis 'Lucifer'

Scientific Name Carex spp. Ornithogalum

Ornithogalum thyrsoides Trifolium incarnatum Aquilegia 'McKana Giant' Aquilegia x hybrida Coreopsis lanceolata Crinum spp. Crocus spp. Narcissus spp. Hemerocallis spp. Calliandra eriophylla Asparagus officinalis Nephrolepis exaltata Dennstaedtia punctilobula Rumohra adiantiformis Moraea spp. Digitalis purpurea Freesia x hybrida Gaillardia pulchella Geum spp. Gladiolus spp. Calluna vulgaris Hosta spp. Gaillardia pulchella Iris kaemphera Lantana montevidensis Doronicum cordatum Lillium spp. Liriope muscari

Liriope spicata

Liriope muscari

crocosmiiflora

Acidanthera bicolor

Chrysanthemum leucanthemum

Chysalidocarpus

Phoenix roebelence

Washington robusta

Echinacea purpurea

Paeonia lactiflora

lutescens

Crocosmia

Artemesia

ludoviciana

Solanum spp.

Coreopsis verticillata

Liriope, Creeping Liriope, Variegated Moonbeam Montbretia

#### Mugwort, Western

Nightshade Orchid, Peacock Oxeye Daisy<sup>†</sup>

Palm, Areca

Palm, Pygmy Date Palm, Washington Peony, Chinese Purple Coneflower\*

#### **PERENNIALS** (continued)

**Common Name** Scientific Name Purple Gay-feather Liatris pycnostachys Purple Loosestrife Lythrum virgatum Rodgersia Rodgersia henricie Rosmarinus Rosemary officinalis Carex spp. Sedge Shasta Daisy† Chrysanthemum x superbum Statice Limonium latifolia Goniolimon Statice, German tartaricum Sweet Flag Acorus calamus Tickseed<sup>†</sup> Coreopsis lanceolata **Texas Bluebonnet** Lupinus texenis Tulip Tulipa spp. Ornithogalum Wonder Flower thyrsoides Yarrowt Achillea millefolium Zephyr Lily Zephyranthes spp.

#### Applications of UP-End herbicidePendi Hydrocap to immature ferns (during periods of

new growth of fronds) may result in some injury.

These plants have shown tolerance to UP-EndPendi Hydrocap applications of 4.2 pints (2.1 quarts) in wildflower plantings established from seed.

#### **ORNAMENTAL GRASSES**

| Common Name   | Scientific Name            |  |
|---------------|----------------------------|--|
| Beach Grass   | Ammophila<br>breviligulata |  |
| Fescue, Blue  | Festuca glauca             |  |
| Fescue, Sheep | Festuca ovina              |  |

Fountain Grass Pampas Grass **Reed Canary Grass** Reed, Giant **Ribbon Grass Tufted Hair Grass** 

#### **BEDDING PLANTS Common Name**

Ageratum

Alyssum\* Anemone, Poppy-flowered Artemesia Balloonflower

Begonia\* Cabbage, Ornamental

#### **Common Name**

Caladium **Cast-Iron Plant** China Aster\* Crocosmia, Montebretia

Dahlia\* Dianthus Dusty Miller Gayfeather Gazania, Treasure Flower Gazania, Trailing

Gloxinia Kale, Ornamental Marigold, African Moss Rose\* Mum, Garden Periwinkle\* Periwinkle, Rose Petunia\* Plumosa Cockscomb Portulaca\* Salvia\* Snapdragon Statice\* Sweet William Vinca\*

Pennisetum setaceum Cortaderia selloana Phalaris arundinacea Arundo spp. Phalaris arundinacea Deschampsia caespitosa

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Scientific Name Ageratum houstonianum Alvssum saxatile Anemone coronaria Artemesia spp. Platvcodon grandiflorum Begonia spp. Brassica olereacea

#### **BEDDING PLANTS (continued)**

**Scientific Name** Caladium spp. Aspidistra elatior Callistephus chinensis Crocosmia x crocosmiiflora Dahlia spp. Dianthus barbatus Senecio cineraria Liatris spp. Gazania rigens Gazania rigens leucolaena Gloxinia simningia Brassica napus Tagetes erecta Portulaca grandiflora Chrysanthemum spp. Vinca major Catharanthus roseus Petunia spp. Celosia cristata Portulaca grandiflora Salvia splendens Antirrhinum majus Limonium spp. Dianthus barbatus Vinca major

\* Do not apply UP-EndPendi Hydrocap sooner than four weeks after transplanting for these annuals. Use the lower labeled rate.



**UP-End herbicidePendi Hydrocap** 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.

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#### STORAGE AND DISPOSAL

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

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

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

**CONTAINER DISPOSAL:** Nonrefillable container. Do not reuse or refill this container. Clean container promptly after emptying. Triple rinse after emptying, then offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

Containers less than or equal to 5 gallons: 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 <sup>1</sup>/<sub>4</sub> full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a rinse 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.

Containers larger than 5 gallons: triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container <sup>1</sup>/<sub>4</sub> 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 it 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.

#### IMPORTANT INFORMATION READ BEFORE USING PRODUCT 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 reflect the opinion of experts based on field use and tests, and must be followed carefully. It is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of United Phosphorus, Inc. or Seller. Handling, storage, and use of the product by Buyer or User are beyond the control of United Phosphorus, Inc. and Seller. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, all such risks shall be assumed by Buyer and User, and Buyer and User are test of hold United Phosphorus. Inc. and Seller harmless for any claims relating to such factors.

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Gallery is a registered trademark of Dow AgroSciences.

Princep is a registered trademark of Syngenta.

Rev. 7/12/10

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UP-EndPendi Hydrocap label notes:

Rev. 1/30/12 - notification of alternate brand name Pendi Hydrocap.

Rev. 7/12/10 - changes made based on EPA approval of this date.

Rev. 12/21/09 – application for registration. Based 0n BASF Pendulum AquaCap, 241-416. PPLS March 2008. Some copyright-type changes made.

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