

# Prestop®

## Biofungicide Powder (WP)

### Active Ingredient:

*Glucadium catenulatum* Strain J1446\* ..... 32%

Other Ingredients ..... 68%

Total 100%

\*Contains minimum  $1 \times 10^8$  cfu/gram

### Keep Out of Reach of Children

## CAUTION

### READ ALL DIRECTIONS BEFORE USING PRECAUTIONARY STATEMENTS

#### Hazards to Humans and Domestic Animals

Harmful if swallowed. Thoroughly wash with soap and water after handling

#### First Aid

**If Swallowed:** Immediately call a poison control center or doctor for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to by a poison control center or doctor. Do not give anything by mouth to an unconscious person. Have the product container or label with you when calling a poison control center or doctor or going for treatment.

#### Personal Protective Equipment (PPE)

Applicators and other handlers must wear: Long-sleeved shirt and long pants, waterproof gloves, shoes plus socks and a NIOSH-approved respirator with any N, P, R or HE filter.

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

#### User Safety Recommendations

**Users should:** Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Immediately remove clothing if pesticide gets inside; then thoroughly wash and put on clean clothing. Remove personal protection equipment immediately after handling this product. If gloves are worn, wash the outside of gloves before removing. As soon as possible, thoroughly wash and change into clean clothing.

#### Emergency Information

For spill, leak, fire, exposure or accident call CHEMTREC at 1-800-424-9300.

#### Environmental Hazards

Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

#### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box apply only 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 0 hours.

#### 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 and greenhouses. Do not enter treated area without protective clothing until sprays have dried.

#### USE RESTRICTIONS

Apply PRESTOP by spraying or drenching the growth substrate, as a foliar or field spray\*, or incorporated into the growth substrate as an aqueous suspension. **When applying PRESTOP as a foliar or field spray, apply only when no above-ground harvestable food commodities are present (before fruiting).**

**\*Do not apply PRESTOP as a foliar or field spray to the following crops:** Asparagus, broccoli, Brussels sprouts, cabbage, cauliflower, celery, chicory, Chinese cabbage, endive, kale, leeks, lettuce, New Zealand spinach, spinach, herbs and spices. **For these crops, apply PRESTOP only as an aqueous suspension incorporated or drenched into the growth substrate.**

**Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment- and weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.**

**Tank Mixes:** Do not tank mix PRESTOP with any pesticides or concentrated fertilizers.

**Integrated Pest Control Programs:** PRESTOP may be used in integrated pest control programs. Always check the compatibility of PRESTOP with other biofungicides or chemical pesticides with the local distributor. Do not apply chemical pesticides within 1 to 4 days of PRESTOP application except for propamocarb hydrochloride, triadimefon, deltamethrin, malathion, metalaxyl, primicarb and pyrethrins; these may be applied on the same day as PRESTOP.

#### GENERAL

PRESTOP controls seed-borne and soil-borne plant diseases such as damping-off, root and stem rot, and wilt caused by *Alternaria*, *Cladosporium*, *Fusarium*, *Penicillium*, *Phytophthora*, *Plicaria*, *Pythium*, *Rhizoctonia* and *Verticillium*, certain storage diseases caused by *Helminthosporium* and *Rhizoctonia*, as well as certain foliar diseases caused by *Botrytis* and *Didymella* on greenhouse or field grown vegetables, herbs, ornamentals, tree and forest seedlings and turf.

Use PRESTOP on turf and the following greenhouse or field-grown vegetables, herbs, spices, ornamentals, trees and shrubs grown in greenhouses or outdoors:

Not for Sale or Use After

Net Contents: 3.5 ounces (100 grams)

Verdera

Verdera Oy  
Luoteisrinne 2  
P.O. Box 5  
FI-02271 Espoo, Finland

EPA Reg. No. 64137-11  
EPA Est. 64137-FIN-1  
Made in Finland  
05/06

## VEGETABLES

Including Fruiting, Leafy, Root Crop and Seed/Pod Vegetables

such as

Artichokes	Cucumbers	Parsnips
Asparagus*	Eggplant	Peas
Beans	Endive*	Peppers
Beets	Garlic	Potatoes
Broccoli*	Horseradish	Pumpkins
Brussels Sprouts*	Kale*	Radishes
Cabbage*	Kohlrabi	Rutabagas
Carrots	Leeks*	Spinach*
Cauliflower*	Lentils	Squash
Celery*	Lettuce*	Strawberries
Chicory*	Melons	Tomatoes
Chinese Cabbage*	New Zealand Spinach*	Turnips
Corn	Onions	Watermelons

\*Apply PRESTOP only as an aqueous suspension incorporated or drenched into the growth substrate.

## HERBS AND SPICES

Apply PRESTOP only as an aqueous suspension incorporated or drenched into the growth substrate.

Aniseed	Fennel	Rosemary
Basil	Lavender	Sage
Caraway	Marjoram	Savory
Chives	Oregano	Thyme
Dill	Parsley	Watercress

## ORNAMENTALS

Including Flowers, Foliage and Potted, Bedding and Seedling

Plants such as

Achillea	Delphinium	Monarda
African Violet	Dianthus	Nigella
Ageratum	Dieffenbachia	Pansy
Alyssum	Freesia	Pelargonium
Amaryllis	Fuchsia	Petunias
Anemone	Gaillardia	Phlox
Anthurium	Gazania	Poinsettia
Aster	Geraniums	Poppy
Azalea	Gerbera	Primrose
Begonias	Gladiolus	Rhododendron
Calceolaria	Gloxinia	Rose
Campanula	Gypsophila	Rudbeckia
Carnation	Hedera	Salvia
Centaurea	Hyacinth	Senecio
Cerastium	Impatiens	Sinningia
Chrysanthemum	Iris	Statice
Cineraria	Kalanchoe	Sweet Pea
Coleus	Liatris	Tulips
Cyclamen	Lilies	Verbena
Daffodils	Lobelia	Vinca
Dahlia	Marigolds	Zinnia
Daisy	Matthiola	

## TREES AND SHRUB SEEDLINGS

Birch	Juniper	Spruce
Forest Trees	Pine	Vine Crops
Fruit Trees	Shrubs	Woody Ornamentals

## OTHERS

Home Ornamentals (grown indoors or outdoors) and Turf

## PREPARING AN AQUEOUS SUSPENSION OF PRESTOP

To prepare an aqueous suspension of PRESTOP, mix product in a small volume of water such as 1 gallon (7 oz. of PRESTOP/1 gallon of water). Agitate sufficiently to evenly disperse product before diluting to final volume. Apply the aqueous suspension as a drench or spray or via drip irrigation or incorporation in potting media. Use the aqueous suspension within 1 day of preparation. Examples of mixing ratios of PRESTOP with water are as follows:

Concentration of PRESTOP Suspension	Ounces of PRESTOP	Gallons of Water	Grams of PRESTOP	Liters of Water
0.1%	3.5 oz.	25	100 grams	100 liters
0.5%		5		20 liters
1.0%		2.5		10 liters
2.5%		1		4 liters

## INCORPORATION IN POTTING MEDIA

Incorporation of PRESTOP in potting media is recommended for vegetables, herbs, ornamentals and tree or forest seedlings grown in greenhouses or indoors. Mix PRESTOP in potting mixture at sowing, potting or transplanting as an aqueous suspension at the rate of 7 – 14 oz. of PRESTOP per cubic yard of growth substrate (i.e. 0.26 – 0.52 grams of PRESTOP per 1 liter of growth substrate).

When incorporating PRESTOP as an aqueous suspension, mix 3.5 oz. of product per 1 gallon of water (2.5% suspension). Use 2 - 4 gallons of 2.5% PRESTOP suspension per cubic yard of growth substrate (i.e. 0.26 – 0.52 grams of PRESTOP per liter of growth substrate).

Use the higher rate for higher disease pressure. It is important to evenly incorporate PRESTOP to assure best performance. Store potting media containing PRESTOP below 77°F (25°C) and use within 3 weeks after preparation. Incorporation of PRESTOP may be followed with a drench application within 3 – 6 weeks as described below under soil drench applications.

## SOIL DRENCH APPLICATIONS

Use a 0.1 – 1.0% PRESTOP suspension (1.4 – 14 oz. PRESTOP per 10 gals. of water) for soil drench applications. Refer to the above table for mixing ratios.

**Treat only the growth substrate when above-ground harvestable food commodities are present.**

**Seedling Trays or Beds less than 4 inches deep (Recommended Rate per Area):** Drench seedling trays or beds with PRESTOP at the rate of 3.5 - 7 oz. of PRESTOP/100 sq. ft. (10 - 20 g/m<sup>2</sup>). Use a 0.5% PRESTOP suspension at 5 - 10 gal/100 sq. ft. Use the higher rate for higher crop density or higher disease pressure. For example, use 7 oz. of PRESTOP/10 gallons of water/100 sq. ft.

**Pots, Plugs or Rockwool Cubes (Recommended Rate per 100 Plants):** Drench crops grown in pots or rockwool cubes with PRESTOP using a 0.1 – 1.0% suspension. Dose rate depends upon the root plug/ball size and disease pressure. Use the higher rate for bigger root volume and higher disease pressure. Calculate the amount of PRESTOP per plant based on the following recommendation: 7 – 14 oz. of PRESTOP per cubic yard of growth substrate. Refer to the following table for application rates on different pot or root plug sizes:

Pot Size (Root Volume)	Fluid Ounces/100 Plants		
	0.1% Suspension	0.5% Suspension	1.0 % Suspension
0.5 fl. oz. (15 ml)	18 - 24	3.5 - 5.5	2 - 3
2.0 fl. oz. (60 ml)	56 - 92	11 - 18	5.5 - 9
4.0 fl. oz. (120 ml)	120 - 200	24 - 40	12 - 20
10 fl. oz. (295 ml)	300 - 500	60 - 100	30 - 50
1 pint (473 ml)	480 - 800	96 - 160	48 - 80
4 pints (1.9 l)	1900 - 3200	380 - 640	190 - 320

**Timing of Treatments:** Apply the first drench treatment at sowing. Repeat treatment at transplanting or potting.

## FOLIAR SPRAY

Spray or spread an aqueous suspension of PRESTOP on plant stems or foliar parts for control of *Didymella* or *Botrytis*. Use a water suspension of 70 oz. PRESTOP per 100 gallons water (0.5% suspension). Treat plants to the point of run-off using a rate of 0.5 gal. of 0.5% PRESTOP suspension per 100 sq. ft. (equivalent to 1 gram of PRESTOP per square meter). Repeat foliar spray every 3 – 6 weeks if necessary. Apply only when no above-ground harvestable food commodities are present.

## FIELD SPRAY APPLICATIONS

After planting, spray fields with an aqueous suspension of 80 - 160 oz. PRESTOP per 100 gallons of water (0.5 - 1% suspension) and apply at the rate of approximately 1 gallon of PRESTOP suspension per 100 sq. ft. (i.e. 0.8 - 1.6 oz. of PRESTOP per 100 sq. ft. [2.5 - 5 g/m<sup>2</sup>]). Use approximately 350 gallons of PRESTOP suspension (0.5 - 1.0%) per acre (3300 l/ha). Repeat spray applications, if necessary, every 3 to 6 weeks only when no above-ground harvestable food commodities are present.

## TURF APPLICATIONS

Spray turf with an aqueous suspension of 25 lbs. (400 oz.) PRESTOP per 100 gallons of water (30 g/l) and apply at the rate of approximately 0.7 - 2 pints of the PRESTOP suspension per 100 sq. ft. (i.e. 0.35 - 1 oz. of PRESTOP per 100 sq. ft. [10 - 30 kg/ha]). Use approximately 40 - 110 gallons of the PRESTOP suspension per acre. Repeat spray applications, if necessary, every 4 to 8 weeks during the growing season.

## TREATMENT OF CUTTINGS, BULBS OR TUBERS

Dip rooted cuttings in a suspension of 1 oz. PRESTOP in one gallon of water (0.75% suspension) or spray with the suspension after planting. Dip or spray bulbs and tubers with a 0.75% PRESTOP suspension before planting or storage.

## DRIP IRRIGATION - CHEMIGATION

### General

1. Apply PRESTOP only through drip irrigation system(s). Do not apply PRESTOP through any other type of irrigation system.
2. A pesticide supply tank is recommended. Continuous agitation of PRESTOP in the supply tank is required. Begin application of PRESTOP during the beginning of irrigation.

### For Vegetable and Ornamental Crops

- On an area basis, use PRESTOP at 22 - 45 g/100 sq. ft. [(0.8 - 1.6 oz./100 sq. ft.)(25 - 50 g/10 sq. meters)].  
On an individual plant basis, use PRESTOP at 250 - 500 g (8.8 - 17.7 oz.) per 1000 plants.
  - Use higher rate and more frequent application for large plants and pots, and for high disease pressure.
  - Apply in sufficient amount of water to move into root zone. Repeat every 3 - 6 weeks as needed for disease control.
3. Crop injury, lack of effectiveness or illegal pesticide residues in the crop can result from nonuniform distribution of treated water.
  4. If you have any questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.
  5. A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of a responsible person, shall shut the system down and make necessary adjustments should the need arise.

### Special Instructions for Use of Public Water Sources

1. Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices from public water systems are in place.
2. 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.
3. 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.
4. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
5. The pesticide injection pipeline must 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 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.
7. 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.

### Special Instructions for Drip Irrigation (Chemigation) Systems

1. The 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.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
3. 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.
4. The system must contain a functional interlocking control to automatically shut off the pesticide injection pump when the water pump motor stops.
5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
6. 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.

## STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal. **Storage:** PRESTOP consists of living microbes that are packed in unit packages. Store unopened packages up to 6 months in a cool (below 46°F, 8°C), dry place and 2 weeks at room temperature (maximum 77°F, 25°C). Immediately use the entire package's content after opening. **Pesticide Disposal:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. **Container Disposal:** Completely empty bag into application equipment, then dispose of empty bag in a sanitary landfill; or by incineration; or if allowed by state and local authorities, by burning; if burned, stay out of smoke.

## NOTICE TO USER

Verdera Oy warrants only that this product conforms to the product description on this label and is reasonably fit for the purposes set forth in the Directions for Use when used in accordance with them. However, ineffectiveness or other unintended consequences may result because of such factors as the use, storage or handling of the product contrary to the label instructions, all of which are beyond the control of Verdera Oy. To the extent permitted by state law, Verdera Oy shall not be liable for indirect or consequential damages resulting from the use, storage or handling of this product. VERDERA OY MAKES NO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.