

PRESTOP®

Front panel

BIOLOGICAL FUNGICIDE WETTABLE POWDER

For the Suppression of Soil-Borne and Foliar Diseases on Greenhouse Vegetables, Herbs and Ornamentals and Cannabis (marihuana) that is produced commercially indoors

COMMERCIAL

GUARANTEE: *Gliocladium catenulatum* Strain J1446 2 x 10⁸ colony forming units (cfu)/g

NET CONTENTS: 100 g

POTENTIAL SENSITIZER

Warning, contains the allergen milk.

KEEP OUT OF THE REACH OF CHILDREN.

READ THE BACK PANEL AND LABEL INSIDE THIS PACKAGE BEFORE USING

**REGISTRATION NO: 28820
PEST CONTROL PRODUCTS ACT**

Manufactured by:

**Danstar Ferment Ag.
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Zug, CH-6300
Switzerland**

**Canadian representative:
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Back panel

PRESTOP® BIOLOGICAL FUNGICIDE WETTABLE POWDER

PRECAUTIONS: KEEP OUT OF THE REACH OF CHILDREN. Keep away from food, drink and animal feed.

Avoid contact with skin, eyes or clothing. Avoid breathing dust or spray mist.

Wear a long-sleeved shirt, long pants, water proof gloves, eye goggles, shoes, socks, and dust/mist filtering respirator (MSH/NIOSH approval number prefix TC-21C) or a NIOSH approved respirator with any N-95, R-95, P-95 or HE filter for biological products when handling, mixing/loading or applying the product and during all clean-up/repair activities. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

After foliar applications, early entry workers are restricted from entering application areas for 4 hours unless wearing a long-sleeved shirt, long pants, water proof gloves, shoes and socks. In addition eye goggles and a dust/mist filtering respirator (MSH/NIOSH approval number prefix TC-21C) or a NIOSH approved respirator with any N-95, R-95, P-95 or HE filter for biological products are required until spray mist has settled.

FIRST AID

IF ON SKIN/CLOTHING: Take off contaminated clothing. Wash with plenty of soap and water.

IF IN EYES: Hold eye open and rinse slowly and gently with water. Remove contact lenses, if present, then continue rinsing eye.

IF SWALLOWED: Rinse mouth and throat with copious amounts of water.

IF INHALED: Move to fresh air.

GENERAL: Seek medical attention IMMEDIATELY if irritation or signs of toxicity occur and persist or are severe. Take container, label or product name and Pest Control Product Registration Number with you, when seeking medical attention.

TOXICOLOGICAL INFORMATION: Treat symptomatically.

ENVIRONMENTAL HAZARDS:

DO NOT contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes. DO NOT allow effluent or runoff from greenhouses containing this product to enter lakes, streams, ponds or other waters. For guidance contact the Provincial Regulatory Agency.

NOTICE TO USER:

This pest control product is to be used only in accordance with the directions on the label. It is an offence under the *Pest Control Products Act* to use this product in a way that is inconsistent with the directions on the label. The user assumes the risk to persons or property that arises from any such use of this product.

STORAGE

Store unopened packets in a cool (at or below +4°C), dry place. Use all contents in packet during the same day. Do not store opened packets since product will lose its viability. Unopened packets stored at or below +4°C have a viable shelf life of 12 months.

PRESTOP® BIOLOGICAL FUNGICIDE WETTABLE POWDER DIRECTIONS FOR USE

GENERAL

PRESTOP® contains a naturally occurring soil fungus. The effect of PRESTOP® comes from several factors. The microbe deprives pathogen fungi of living space and nourishment by colonizing plant roots in advance of pathogens. In addition, the microbe acts as a hyperparasite for harmful fungi by producing enzymes, which results in lysis of cell walls of pathogens.

PRESTOP® suppresses the listed fungal diseases on the specified greenhouse grown vegetables, herbs, ornamentals and cannabis (marihuana) that is produced commercially indoors. PRESTOP® is not recommended for treatment of unrooted cuttings.

PRESTOP® is compatible with IPM programs.

DIRECTIONS FOR USE

PRESTOP® is a wettable powder, packed in air-tight, moisture-proof packets. PRESTOP® should always be prepared as an aqueous suspension, and then applied in one of three ways: as a growing media treatment, as a drench treatment or as a foliar spray treatment. PRESTOP® is most effective when applied preventatively, before disease starts. Refer to the **Crops Treated and Diseases Suppressed** section for information on what diseases PRESTOP® will suppress on specific crops. Refer to **PRESTOP® Mixing Instructions** section for directions as how to prepare an aqueous suspension of PRESTOP®. Refer to the **Application Timing, Methods and Rates** section for specific information on when to apply PRESTOP®, application instructions, and use rates.

CROPS TREATED AND DISEASES SUPPRESSED

Propagation Stage

Apply PRESTOP® as a growing media incorporation, or as a drench application.

PRESTOP® will suppress damping-off caused by *Pythium* sp. and *Rhizoctonia solani* on the following vegetables and herbs: cucumber, pepper, tomato, cauliflower, broccoli, lettuce, oregano, basil, parsley, thyme and dill.

It will suppress damping-off caused by *Pythium* sp. and *Rhizoctonia solani* on the following bedding plants: alyssum, geranium, pansy, petunia, salvia, snapdragon and tagetes; as well as on potted poinsettia and saintpaulia.

Cultivation Stage

When incorporated into media, and/or applied as a repeated drench treatments, PRESTOP® will suppress crown and root rot caused by *Pythium* sp. on cucumber, pepper, tomato, cauliflower, broccoli, lettuce, oregano, basil, parsley, thyme, dill and cannabis (marihuana) that is produced commercially indoors as well as root and stem wilt disease caused by *Fusarium oxysporum* on cucumbers and basil.

For ornamentals, PRESTOP® will suppress root and basal stem rot caused by *Phytophthora cryptogea* on alyssum, geranium, pansy, petunia, salvia, snapdragon and tagetes, as well as poinsettia and saintpaulia.

Foliar diseases

When applied as a foliar spray, PRESTOP® will suppress stem canker caused by *Botrytis cinerea* on greenhouse peppers, tomatoes and cucumbers, as well as grey mould caused by *Botrytis cinerea* on greenhouse peppers, tomatoes, cucumbers, lettuce, oregano, basil, parsley, thyme, dill and cannabis (marihuana) that is produced commercially indoors. It will also suppress gummy stem blight disease (*Didymella bryoniae*) on cucumbers.

For ornamentals, it will suppress grey mould caused by *Botrytis cinerea* on alyssum, geranium, pansy, petunia, salvia, snapdragon and tagetes, as well as poinsettia and saintpaulia.

PRESTOP® Mixing Instructions

To prepare an aqueous suspension of PRESTOP®, refer to the table below. Make an aqueous suspension to either 0.5% or 1.0% by mixing the PRESTOP® packet contents carefully in a small volume of water (e.g. 1L). Agitate as needed to get the product evenly dispersed before dilution to final volume. The water suspension should be used within 24 hours of being prepared.

Concentration of PRESTOP®	Grams of PRESTOP®	Litres of Water
0.5%	25	5
0.5%	100	20
1%	50	5
1%	200	20

Do not tank mix PRESTOP® with any chemical pesticide including fungicides, insecticides and herbicides, or adjuvants. Do not apply through chemigation equipment. PRESTOP® can be applied in alteration with other fungicides registered for disease control.

APPLICATION TIMING, METHODS and RATES**Application Timing**

The effect of PRESTOP® is preventative. Start by treating the growing media prior to seeding, transplanting or potting, or else make a drench application immediately after seeding, transplanting or potting. Once seeds are sown or seedlings transplanted, additional applications of PRESTOP® can be made as a drench or foliar application. Always use an aqueous suspension of the product. Repeat applications every 3 to 6 weeks, with the shorter interval used under conditions of moderate to high disease pressures. For suppression of foliar diseases, re-apply every 3 to 4 weeks as a foliar spray application.

METHOD 1: Growing Media Treatment

Prepare and apply a 0.5% aqueous solution of PRESTOP® to the indicated volume of growing media just prior to planting, transplanting or sowing. Growing media includes rock-wool containers, peat-based and other media. Always adjust the volume of water according to the moisture content of the growing media. A drench application of PRESTOP® may follow a growing media treatment immediately after planting or transplanting has occurred.

Required Volume of 0.5% PRESTOP® Suspension*	Per Quantity of Growth Media
125-250 mL	per 10 L
625-1250 mL	per 50 L
12.5-25 L	per 1.0 m ³

* Always adjust the volume of water according to the moisture content of the growing media.

METHOD 2: Soil Drench Treatment

Prepare and apply a 0.5% aqueous solution of PRESTOP® as a drench application to the surface of the growing media after planting, transplanting or sowing. Always adjust the volume of water according to the moisture content of the growing media. Refer to the tables below for correct volume of suspension to apply per area of growing media (propagation stage), or per plant (cultivation stage). For suppression of *Fusarium* root and stem wilt only, use the 1% rate.

Required Volume of 0.5% or 1.0% PRESTOP® Suspension*	Per Area of Growth Media
20 L	per 10 m ²
200 L	per 100 m ²

*Always adjust the volume of water according to the moisture content of the growing media.

Required Volume of 0.5% or 1.0% PRESTOP® Suspension*	Per Number of Plants
20 L	per 400 plants
100 L	per 2000 plants

*Always adjust the volume of water according to the moisture content of the growing media.

METHOD 3: Foliar Treatment

Vegetables and herbs: tomato, pepper, cucumber, lettuce, oregano, basil, parsley, thyme, dill and cannabis (marihuana) that is produced commercially indoors.

Ornamentals: alyssum, geranium, pansy, petunia, salvia, snapdragon and tagetes, poinsettia and saintpaulia.

Rate: Prepare and apply to 0.5% aqueous suspension of PRESTOP® to plant stems and leaves. Spray to wet but not to run-off. For the suppression of gummy stem blight, use the 1% rate.

STORAGE

Store unopened packets in a cool (at or below +4°C), dry place. Use all contents in packet during the same day. Do not store opened packets since product will lose its viability. Unopened packets stored at or below +4°C have a viable shelf life of 12 months.

DISPOSAL

1. Triple-rinse the empty container. Add the rinsings to the aqueous suspension.
2. Follow provincial instruction for any required additional cleaning of the container prior to its disposal.
3. Make the empty container unsuitable for further use.
4. Dispose of the container in accordance with provincial requirements
5. For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

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