



BIOFUNGICIDE

Clonostachys rosea strain J1446



PRESTOP®

Broad spectrum disease controlling biofungicide

Fight effectively against above ground-diseases and root or base-rot diseases

PRESTOP® contains a high concentration of mycelia and spores of *Clonostachys rosea** strain J1446, a naturally occurring soil fungus, selected for its capacity to control a range of very important crop diseases.

*previously known as *Gliocladium catenulatum*.



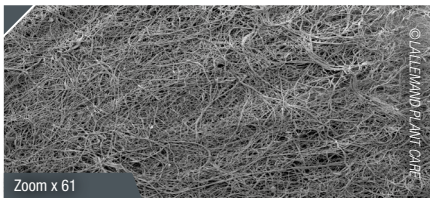
WETTABLE
POWDER

MODES OF ACTION

Clonostachys rosea strain J1446 operates through several useful modes of action:

1


COMPETITION :
quick colonisation of root and aerial parts of the plants depriving pathogenic fungi of living space and nourishment.



Rapidly growing mycelium of *C. rosea* J1446

Zoom x 61

2




Control PRESTOP® WP

SAPROPHYTISM:
rapid development on dead plant tissues which can seal wounds and provide an effective physical barrier protecting against the entrance of pathogenic organisms.

3

HYPERPARASITISM:
production of enzymes which cause the breakdown of cell walls of plant pathogens.



Rhizoctonia hypha
C. rosea J1446 appressoria

C. rosea J1446 parasitising *Rhizoctonia solani*

BENEFITS

- **Against grey mould and stem cankers** caused by *Botrytis cinerea* on leafy crops, tomatoes, peppers, cucumbers, aromatic plants, ornamentals, strawberries and other soft fruit.
- **Against gummy stem blight** caused by *Didymella* sp. on cucumbers.
- **Against damping-off and root or base rot diseases** caused by *Pythium*, *Phytophthora*, *Rhizoctonia* and *Fusarium* on vegetables, salads, aromatic plants and ornamentals.

ADVANTAGES

- **Broad spectrum of use**
- **Several modes of action:** low risk of resistance
- **Persistence of action :** 3 to 4 weeks on the foliage and 4 to 6 weeks in the soil and growing media
- **Environmental profile:**
 - without toxicological classification
 - usable in organic farming and zero residue programmes

APPROVED USES

Crops	Protected crop uses	Open field uses	Pathogens	Method of application and dosing	Number of applications per crop (interval in days)	Standard technique minimum buffer zone (m) (open field uses only)
Growing media (substrate or potting soil)	✓	✓	Seedling damping-off (Pythium)	Preventively – 0.2-0.5 kg/m ² of growing media (incorporation)		—
Asparagus, gherkin, trimmed celery* (leaf consumption), courgette/pattypan squash, garden cress and other young shoots*, watercress, endives, red radicchio, sugar loaf, young shoots (harvested up to the 8 true leaf stage)*, lettuce, lamb's lettuce, rocket*	✓	✓		At emergence or planting Preventively – 5-10 g/m ² (spraying the substrate with 0.5-1 L/m ² of 1% solution) – 0.2-0.25 kg/1000 plants (drip irrigation)	1-3 (21 days)	1
Other crops grown for: - leaf consumption*: Dill, angelica, green anise, caraway, chervil, musk-chervil, chives, upland cress, watercress, yellow rocket, coriander, tarragon, hyssop, laurel, lovage, lemon balm, mint, white mustard, brown mustard, black mustard, oregano/ marjoram, sorrel, leaf parsley, purslane, rosemary, garden sage, garden savory, thyme - flower consumption*: common borage - basil (consumption of leaves) and edible flowers (flower consumption)* - consumption leaves and/or stems*: juniper, samphire - root consumption*: Root parsley and tuberous-rooted chervil, valerian	✓	✓	Root Phytophthora (Phytophthora cinnamomi), Seedling damping-off (Pythium), Fusarium (Fusarium spp.)	At emergence or planting Preventively – 5-10 g/m ² 5-10 g/m ² (spraying the substrate with 0.5-1 L/m ² of 1% solution)	1-3 (21 days)	1
Eggplant and sweet cucumber, cucumber, sweet pepper/chilli, tomato	✓				1-3 (21 days)	—
Calabrese broccoli, Chinese cabbage, pak choi, tatsoi and komatsuna, Brussels sprouts, cauliflower (white and green), curly kale (cavolo nero), turnip, rutabaga, head cabbage (white, red, collards and Savoy), leek		✓		At emergence or planting Preventively – 5-10 g/m ² (spraying the substrate with 0.5-1 L/m ² of 1% solution) – 0.2-0.25 kg/1000 plants (drip irrigation)	1-3 (21 days)	1
Ornamental plants (not intended for consumption)	✓	✓			1-3 (21 days)	5
Gherkin, courgette/pattypan squash, endives, red radicchio, sugar loaf, lettuces (only rooted cuttings of non-woody plants can be treated by dipping)	✓	✓		– 0.1 kg/1000 plants (spraying of the stem bases) – 0.5 kg/100 L (spraying during the sowing or planting) – 0.5 kg/100 L (dipping of cuttings in a solution)	1-8 (21-28 days) 1	1
Eggplant and sweet cucumber, cucumber, pepper/chilli, tomato (only rooted cuttings of non-woody plants can be treated by dipping)	✓			– 0.1 kg/1000 plants (spraying of the stem bases) – 0.5 kg/100 L (spraying during the sowing or planting) – 0.5 kg/100 L (dipping of cuttings in a solution)	1-8 (21-28 days) 1	—
Strawberry plants (fields for production, fields for selection and multiplication)	✓	✓		From the beginning to the end of flowering (BBCH 60-69) – 6 kg/ha (spraying)	1-3 (beginning, mid and end of flowering)	1
Ornamental plants (not intended for consumption) (only rooted cuttings of non-woody plants can be treated by dipping)	✓	✓		– 0.1 kg/1000 plants (spraying of the stem bases) – 0.5 kg/100 L (spraying during the sowing or planting) – 0.5 kg/100 L (soaking of cuttings in a solution)	1-8 (21-28 days) 1	5
Cucumber	✓		Gummy Stem Blight (Didymella bryoniae or Stagonosporopsis cucurbitacearum)	– 0.1 kg/1000 plants (spraying of the stem bases)	1-8 (21-28 days)	—
Gherkin	✓	✓			1-8 (21-28 days)	1

* To prevent any phytotoxicity problems for the crop, it is advisable to carry out a test on a few plants before treating the whole field. The approved rate is the highest legally permitted rate in most situations. It can be reduced under the responsibility of the user, e.g. in situations where the risk of damage is low or when using a mixture of products. The reduction of the applied rate does not allow for an increase in the maximum number of applications.

Authorization holder: DANSTAR FERMENT A.G.

Poststrasse 30,
CH-6300 Zug
SWITZERLAND

LALLEMANDPLANTCARE.COM

CHARACTERISTICS

- ACTIVE INGREDIENT:** *Clonostachys rosea* J1446 2.10⁸ CFU*/g

*CFU: Colony Forming Unit. Unit of measure for living microorganisms able to multiply

- FORMULATION:** wettable powder (WP)
- PACKAGING:** 1 kg
- STORAGE:** 12 months in a cool and dry place below +4°C or 4 weeks at room temperature.
- AUTHORIZATION n°:** 9734 P/B
- Usable in organic farming**

USAGE RECOMMENDATIONS

- PRESTOP® powder is mainly used in the form of an aqueous suspension for applications:**

- as a foliar spray.
- by drip irrigation systems.
- by dipping or drenching.
- by incorporation into growing media.

The most efficient way to use PRESTOP® is preventatively. The active microorganism survives in the rhizosphere and on aerial plant parts for several weeks protecting the crop against pathogens.

- PRESTOP® against *Botrytis* and *Didymella*:**

- **Foliar spray:** 0.5% of spraying volume in respect of the maximum dose rate (6 kg/ha).
- **Spray on wounds:** 2% aqueous suspension for localized application.
- Renew applications every **3-4 weeks**.

- PRESTOP® against soil-borne diseases:**

- **Soil spray (full cover application):** 3 to 5 kg/ha (depending on disease pressure).
- **Soil spray (localized):** 3 kg/ha.
- **Growing media incorporation:** 200 to 500 g/m³ (depending on disease pressure).
- Renew applications every **4-6 weeks**.

COMPATIBILITY

PRESTOP® is compatible with many chemical pesticides and can be used in Integrated Pest Management (IPM) programmes.

Ask your distributor before mixing with plant protection products.

MICROBIAL
BY
NATURE

LALLEMAND