

Bactonus

Bio Bactericide / Bio Fungicide

Introduction

Bactonus is a organic bio bactericide and bio fungicide, designed to control the pathogenic bacteria and fungi for use on vegetables, fruits, crops, nuts, vines and herbs, it is formulated by patented and synergistic bactericidal agent *Bacillus safensis*, *Bacillus velezensis*, and *Pseudomonas chlororaphis*, enabling its active ingredient colonize at the rhizosphere of plants, controlling or preventing of fungal and bacterial plant disease for plants, especially crop protection from bacteria wilt, Granville wilt and root rot disease.

Composition

ACTIVE INGREDIENT: *Bacillus safensis*, *Bacillus velezensis*, and *Pseudomonas chlororaphis*

Bacteria count 3×10^8 CFU/g , wettable powder type, 1 kg per foil bag

Target Disease

- Granville wilt (*Pseudomonas solanacearum*)
- Bacteria Wilt (*Ralstonia solanacearum*)
- Bacterial Soft Rot (*Erwinia spp.* or *Pseudomonas spp.*)
- Sheath Blight (*Rhizoctonia solani*)
- Crown Gall (*Agrobacterium tumefaciens*)
- Root rot (*Phytophthora*, *Pythium* and *fusarium*)

Common Crops

- Tomato
- Lettuce
- Cucurbits
- Eggplant
- Cucumber
- Carrot
- Herbs
- Fruits
- Pepper
- Photato
- Tobacco
- Ornamentals

Mode of Action

- **Prevention of bacterial diseases:** *Bacillus velezensis* functions by producing bacteriolytic substances and secreting antibacterial components including ribosomal peptides and volatile substances. *Pseudomonas chlororaphis* produces phenazine antibiotics, *pseudomonas aeruginosa*, and other components that together inhibit pathogenic bacterial disease
- **Prevention of fungal diseases:** *Bacillus safensis* can adsorb on the mycelium of pathogenic fungi and produce chitinase to break down the fungal mycelium, and secrete antibiotics such as phospholipids, aminoglycans, peptides and lipopeptides to inhibit the growth of fungal mycelium.
- **Improvement of root environment:** *Bacillus velezensis* and *Pseudomonas chlororaphis* can form biofilm around the root system, which facilitates the colonization of beneficial bacteria around the root system and improves the micro-ecological environment of the root system, while secreting IAA (indole acetic acid), jasmonic acid and other substances to promote the growth of the root system and maintain the health of the root system and the surrounding environment.

Benefit:

- Broad-spectrum preventative microbial bactericide/fungicide for plants
- Effective anti-bacterial and anti-fungal activity
- Bolsters root and shoot growth
- Enhances overall plant health and vigor
- Improves yield potential
- Increases plant resistance.
- Flexible application timings.
- No resistance & no waiting period

Dosage & Method

Seedbed nursing: apply 3-5 gram per liter for spray when 2-3 true leaves

Soil Treatment: Apply 3 kg per acre by soil drench or drip irrigation, as early as possible to the crop for optimal effect. Reapply at 30 days interval

Foliar Spray: Apply 3 kg per acre with sufficient water for foliar spray when flowering early stage, reapply at 20 days interval.

Tank Mixing

- **Bactonus** is a commercial biological bactericide/fungicide for indoor and outdoor plants, Do NOT combine **Bactonus** in the spray tank with pesticides, surfactants, copper-based products or fertilizers unless prior experience has shown the combination to be compatible. Any tank combination must also be tested for disease resistance effectiveness and plant selectivity prior to use in commercial application.

- If any canned mixture is required, a small amount of the mixture should first be tested in a small measurement volume to determine physical compatibility at the desired dilution rate. If this test is positive, the mixture should be field tested on a number of plants to observe effectiveness and plant safety.

Packing and shelf life

24 months shelf life, 1 kg per bag

Storage

Store in cool and dry, keep out of direct sunshine and moisture. Keep out of reach of children.