

BACTO-CONTROL CROP PROTECTION

### THE MOST PROMISING METHOD FOR MORE RATIONAL AND SAFE CROP MANAGEMENT PRACTICES

#### **PRODUCT DESCRIPTION**

Bacto-Control is a proprietary blend of bacteria cultures with high production of bio-active molecules. The bacteria cultures included in this product have a great potential to protect crops from a broad range of diseases by direct inhibition of pathogens and stimulation of the plant's immune system. The bacteria also promote plant growth by acting as a root colonizer that will protect it from pathogens and then facilitate nutrient absorption.

The lipopeptides act on plant pathogens via two major mechanisms: inhibition of the synthesis of their cell wall components such as glucan or chitin, and the breakdown of fungi cell walls through the surface-active properties. In addition, the biosurfactants can also act as spreaders, by facilitating root colonization, and as immuno-stimulators, by reinforcing host resistance potential.

# THE LIPOPEPTIDES ARE LOW MOLECULAR MASS SUBSTANCES INCLUDING:

- Surfactin
- Iturin
- Fengycin
- Lichenysins
- Mycosubtilir
- Arthrofactin, etc.

Bacto-Control is an environmentally friendly alternative to the use of chemical pesticides for crop protection. Using beneficial microorganisms, Bacto-Control is the most promising method for more rational and safe crop management practices.

### SPECIFICATIONS

Description	Brownish
Packaging	250 g water soluble pouches
Stability	Max. Loss of 1 log/yr
рН	6.0 - 8.0
Bulk Density	0.5 – 0.7 g/cm3
Moisture Content	Max. 15%.
Nutrient Content	Biological nutrient and microbial growth factors
Plate Count	Count Min. 5 billion cfu per gram
Storage and Handling	Do not inhale dusts. Avoids excessive skin contact. See MSDS.

Bacto-Control contains a variety of bacteria cultures including *Bacillus subtilis, Bacillus pumilus, Bacillus amyloliquefaciens, Bacillus licheniformis, Bacillus megaterium, Bacillus thuringiensis, etc.* These bacteria produce a broad spectrum of bioactive molecules belonging to the family of lipopeptides, also called biosurfactants.



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## REGULAR APPLICATION OF BACTO-CONTROL WILL

- Protect the crop from a broad range of pathogens including: Downy Mildew, Powdery Mildew, Fusarium, Botrytis, Sour Rot, Rhizoctonia, Phytophthora, Rust, Sclerotinia, ect.

- Suppress plant diseases by activating internal immune system

- Enhance plant root development by root colonisation and protection from pathogens

- Facilitate nutrient absorption

 Promote green agriculture by eliminating the use of chemical pesticides

- Maintain overall health of rivers, soil and air by improving the quality of agricultural residues and eliminating the dependence on chemical pesticides

#### **APPLICATION INSTRUCTIONS**

Bacto-Control is a water dispersible powder that must be diluted before spreading on crops. The product can be spread on plant leaves, stems, fruit, flowers and all other organs without risk to the environment and humans since the bioactive bacteria and the bioactives produced are safe and entirely biodegradable.

Bacto-Control is compatible with conventional spray equipment, irrigation delivery systems, and aerial application. The product can be applied several times in open air or in greenhouse settings without risk for the environment or workers.

Bionetix recommends making a 1% dilution as spreading solution. 1 kg to 2 kg of Bacto-Control powder (100 to 200 liters of solution) are needed to treat 1 hectare of crop. The solution should be used within 3 hours of mixing. Otherwise, store at a temperature less than 4°C.

This dosage rate can vary according to system requirements. The above dosing is for a typical, well-maintained system.

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