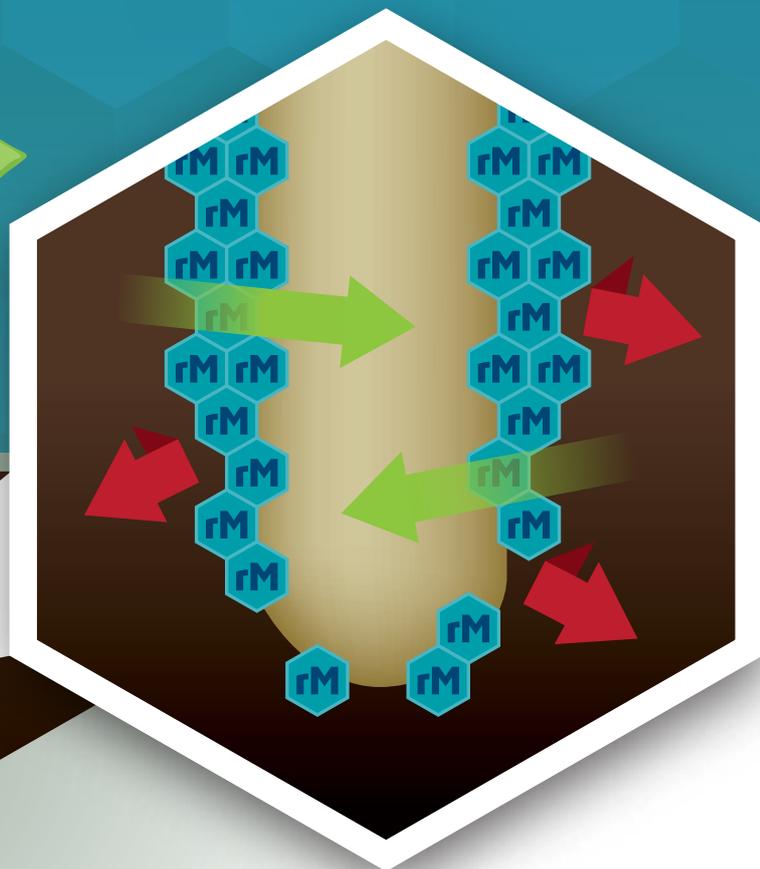


# Soil Disease defense with better biology

from **biofilm**  
crop protection



**rM rhizoMax**  
biofilm  
crop protection

- ✓ Rebuilds your Soil microflora
- ✓ Improves nutrient release, uptake and utilisation
- ✓ Defends your plant's roots
- ✓ Robust for storage and use



## It is Microbial IPM underground

Based on a selectively developed strain of *Bacillus amyloliquefaciens* (strain rm303), Rhizo-max provides effective management of a wide array of both fungi and bacteria, via pre-emptive colonization and population manipulation, while providing outstanding plant, human and environmental safety. Rhizo-max is also an excellent tank-mix or rotational partner in your disease control and nutrient program, compatible with most commonly used pesticides, nutrients and adjuvants.

**Rhizo-max** contain gram positive endospores which are Phosphate solubilizing, **lipopeptide antibiotic rhizo-bacteria**

The Active ingredient contains a concentrated ( $1 \times 10^9$  cfu / ml) Aqueous Suspension of a specific strain of *Bacillus amyloliquefaciens* (strain rm303), and the broth in which the bacteria is cultured;

Rhizo-max also acts as an **immunostimulant** that works through the promotion of a naturally occurring **Salicylic Acid Response** in plants.

Rhizo-max is a broad spectrum root inoculant. for use on a wide range of crops including tree and grain crops, ornamentals and vegetables. Rhizo-max enhances germination and plant growth by competitively excluding diseases caused by a range of Fungi and Bacteria.

Rhizo-max's unique acceleration of the ATP → ADP process, means that Phosphate ions are gathered, electrochemically by the bacteria, and pulled into the plant, making the most of applied and stored nutrients.

## Key Features

- ( Increased Nutrient utilisation, and adsorption by active transport, via the active ingredient's creation of electrochemically charged, ion conducting pores, facilitating the uptake of essential nutrients such as Nitrogen, Phosphorous, and Silica.
- ( Promotion of a Salicylic Acid Response to induce naturally occurring disease resistance
- ( Colonisation of the cytoplasmic membrane (root hairs) and subsequent formation of a biofilm
- ( Isobutyric acids are just one of the amino acid compounds produced by the bacteria which increase the solubilisation of Phosphorus in soils resulting in growth stimulation

## RHIZO-MAX Benefits

- ( Cost effectively Re-build your soil biota to get on top of soil health issues affecting production.

- ( Operates via multiple modes of action for effective resistance management
- ( Safe for use in conjunction with composts, and other microbial inoculants such as Rhizobium and Trichoderma
- ( Compatible for tank-mixing / rotating with other products
- ( Excellent for sustainability and IPM underground.

## What situations trigger the requirement for Rhizo-max and when to apply it?

### Crop Nutrition and Soil Health

- w Cation imbalances, particularly in sodic soil, or highly alkaline soils
- w Where the Acid extractable P (BSES-P) is significantly (2-3 times) more than Colwell-P.
- w Apply in conjunction with Nitrate-N, Phosphate-P, Silica and Molybdenum fertilizers to increase their efficacy via active transport.

### Crop Protection and Disease Prevention

- w Instances where continuous cropping has occurred and a build up in population of "bad biology"
- w The risk of Bacterial pathogens is present as a result of warm wet conditions that are conducive to the germination of spores
  - ū Ensure that Rhizo-max has been applied either before or early at the onset of these conditions to enable:
    - ā Colonization to occur and the bio-film to be created
    - ā Rhizo-max is not mobile on the plant, so repeat applications as more vegetative material grows to ensure continued colonization. Limit application late in the season.

## Application Rates

Seed Treatment	Furrow Injection	Fertigation
500ml/100kg	Add at 2% Tank Mix Solution  (must get contact with seed before furrow is closed over)	15L/ha

**NOTE -- STORE BIOFILM PRODUCTS IN A COOL SHADED AREA AVOIDING DIRECT SUNLIGHT.**