

- Specification Sheet -**BACTA-MIX**

BACTA-MIX is an organic fertilizer formulated in water soluble which contains spores of beneficial soil bacteria in total population of 2×10^{14} cfu*/g (*cfu: colony forming units). The rich microbial content of **BACTA-MIX** consists of the following 6 different strains of bacteria:

- *Bacillus Pumilis*
- *Bacillus Subtilis*
- *Bacillus Licheniformis*
- *Bacillus Megaterium*
- *Bacillus Megaterium vP*
- *Azotobacter*

The role of these bacteria in the soil is versatile. Bacilli *Bacillus pumilis*, *Bacillus subtilis*, *Bacillus licheniformis*, *Bacillus megaterium* form auxins and other phytohormones that help in the creation of a large and dense tassel in the root. The strain *Bacillus Megaterium vP* is capable of creating substances which solubilize the insoluble in water phosphorus of the soil by converting it into forms easily assimilable by plants. *Azotobacter* are free-living in the soil bacteria which bind atmospheric nitrogen. Then they release it in the form of ions that is later converted in nitrate form which is absorbed by the plants.

Furthermore the addition of the beneficial microorganisms in the soil creates an excellent environment for the growth and the easy penetration of the roots since they break down the soil organic matter and creates bonds with mineral nutrients (chelation). They improve the aeration and restrict the area for the soil pathogens. Additionally **BACTA-MIX** provides amino acids which stimulate root growth and fortify the assimilation of the mineral soil nutrients.

PROPERTIES AND USES:

- ❖ Stimulates and promotes the growth of the root system.
- ❖ Fortifies the vigour of plants.
- ❖ Promotes the growth of crops.
- ❖ Increases gradually the content of nitrogen and assimilable phosphorus in the soil.
- ❖ Improves the soil conditions for the production of productive and healthy plants.
- ❖ Assists in the increase of the productivity of plants.

APPLICATION:

BACTA-MIX is applied for soil applications through the irrigation/fertilization system after it has been diluted in an appropriate bacterial growth solution (e.g. BACTA-FOOD) for the activation of the microbial population.

Application Rate: 200 g/ha

Instruction: Dilute 20g **BACTA-MIX** in 1 liter of liquid bacterial growth solution **BACTA-FOOD** and let it for 2 hours in normal room temperature 20 - 25 °C agitating periodically. Then apply the solution in the tank and water.

STANDARD ANALYSIS

Beneficia soil bacteria:	5 x 10 ⁹ cfu*/g.	(w/w)
Nitrogen (N)	5.50 %	

(*cfu: colony forming units)

PHYSICAL PROPERTIES:

Appearance: White powder
Solubility: 100% water soluble