

## MICROBIAL INOCULANT & NATURAL ROOTING BIOSTIMULANT

# Rizobac

NPK 0.5 - 1 - 3

**Rizobac** contains beneficial soil bacteria in a total population of  $1 \times 10^{11}$  cfu (colony forming units) per liter. The contained in **Rizobac** bacteria occur naturally in the soil and include the following species:

- **Bacillus subtilis**
- **Bacillus licheniformis**
- **Bacillus megaterium**
- **Azotobacter**

Science has documented but it is also field proven that the species of bacteria contained in **Rizobac** create a healthy soil environment, promote the root system growth, contribute to the better plant nutrition and fortify plants resistance against stress caused by various environmental and biotic factors.

### Nutrient Content

The beneficial microbes of **Rizobac** are in an excellent, rich in plant nutrients, liquid substrate that includes:

- Natural plant growth regulators (cytokinins, auxins, gibberellins, betaines)
- Amino acids
- Monosaccharides and Oligosaccharides
- Polysaccharides
- Vitamins (including B12, B2 and C)
- Micronutrients (Fe, Zn, Mg, Mn, Ca, B, S)
- Humic and fulvic acids
- Oils



Produced by

**HUMOFERT** 

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The organic substrate of *Rizobac* is an ideal combination of plant nutrients that stimulates the plant growth and the root system development, enhances the rooting and achieves a rapid establishment of the transplanting crops in the soil. In addition, it increases the penetration of the roots in the soil as well as the development of the roots for all crops.

### **Properties as a rooting biostimulant**

- Ideal rooting medium for all types of plantlets.
- Ensures the quick and safe establishment in the soil of all transplanting crops.
- Improves the physicochemical properties of the soil and assists the root penetration even in concrete soils, while at the same time it contributes to the better aeration of the soil.
- Supplements the organic matter of the soil which is consumed due to intensive cropping.
- Enhances the cation exchange capacity of the roots.
- Accelerates the cell divisions of the root tissue (mitosis) that result in the rapid root growth.

### **Properties as a microbial inoculant**

- Enriches the soil with beneficial microorganisms that live either free or in symbiosis with the plant roots and secrete substances that promote both the growth of the root system and the health of plants.
- Acts as a shield of the root system that fortifies the resistance of the plant against stress caused by various environmental and biotic factors.
- Increases the availability of the plant nutrients (nitrogen, phosphorus and potassium).
- Improves the biological soil structure by creating an ideal environment for the growth of vigorous and high yield crops.
- Contributes to the growth of highly productive plants with great resistance in diseases.

### **Application Timing & Use**

Microbial inoculant: *Rizobac* is applied initially in the nursery, then at transplanting and later every 25 days until the end of the crop in order to maintain the population of the beneficial microorganisms in an excellent level. In annual crops it is applied twice a year.

Rooting biostimulant: *Rizobac* is applied at transplanting or with the first watering after transplanting. Repeat application after 10-15 days.

### **Application rates**

Microbial inoculant: Apply 5 liters *Rizobac* per ha and soak thoroughly the root zone.

Rooting biostimulant: Apply 0.5-1 ml *Rizobac* per plant at transplanting crops and 5-50 ml per plant in annual crops (trees, bushes etc) according to the size of the plant.

### **Life span**

1 year +