



# IRA Biotech

# I-PHOS

## Phosphorus Solubilizing Bacteria

I-PHOS is a high-performance phosphate-solubilizing bio-formulation powered by *Bacillus megaterium*. It converts insoluble phosphates in the soil into readily available forms, enhancing nutrient uptake by crops. By producing organic acids, it improves soil fertility and supports stronger plant growth. The result is increased crop productivity, better nutrient efficiency, and healthier yields.

Microorganisms are present in lyophilised (freeze-dried) dormant form, ensuring stability during storage. They become active upon exposure to moisture and favourable soil conditions. Stable across a broad range of conditions (pH-1.5–10 and temperatures up to 45°C), enabling performance in diverse environments.



### Product Features

#### Mode of Action

- ❖ Colonizes the root zone and actively interacts with soil nutrients.
- ❖ Produces organic acids that solubilize insoluble phosphates in the soil.
- ❖ Converts fixed phosphorus into plant-available forms for better uptake.
- ❖ Enhances microbial activity, improving overall soil fertility.
- ❖ Supports root development and efficient nutrient absorption in crops.

#### Expected Results

- ❖ Increased availability of phosphorus for improved nutrient uptake.
- ❖ Stronger root development and better plant establishment.
- ❖ Enhanced plant growth, vigor, and uniform crop performance.
- ❖ Improved soil fertility and microbial activity.
- ❖ Higher yields with better crop quality and productivity.

#### Safety Directions

- ❖ Avoid inhalation of dust or spray mist
- ❖ Wash hands after use
- ❖ Use in well-ventilated areas

#### Environmental Protection

- ❖ Contains naturally occurring microorganisms
- ❖ Do not contaminate waterways with product or container

### Product Analysis:

Bacillus Megaterium.....	3%
Dextrose.....	97%

### Physical Characteristics:

White Powder, Water Soluble, pH: 5.5-8.5

### Application:

#### Application Rate:

- ❖ 100 grams per hectare

#### Application Method:

- ❖ Soil application or via drip irrigation (fertigation)
- ❖ Dissolve 100 g in 700–1000 litres of water per hectare
- ❖ Apply uniformly to the root zone
- ❖ Foliar Spray 100g in 500 litres of water and spray for 1 hectare

### Compatibility:

Compatible with most organic inputs. Avoid mixing with chemical fungicides, bactericides, or disinfectants.

### Storage

- ❖ Store below 30°C in a cool, dry place
- ❖ Keep container tightly closed
- ❖ Protect from direct sunlight

