BIO-NUTRITION

P’RISE
A BIO-FERTILIZER TO ENRICH CROPS WITH NATURAL PHOSPHORUS

PHOSPHATE SOLUBILIZING BACTERIA

P’RISE is a formulation containing Phosphate Solubilizing Bacteria (PSB) which are capable of solubilizing insoluble phosphates by producing organic acids. It enhances the bioavailability of phosphates by decreasing its adsorption and dissolution of insoluble phosphate compounds such as Ca, Fe, and Al phosphates.

COMPOSITION

KEY BENEFITS

Enhances the bioavailability of phosphorus and there by -
- Facilitates cell division, development of cell and DNA formation
- Enhances root development particularly of lateral and fibrous roots
- Increases flower development and fruit set, hastens crop maturity
- Helps in formation of adenosine tri-phosphate (ATP)
- Results in high quality seeds and increases crop yield

SHELF LIFE
2 years from the date of manufacturing

PACKAGING
500 g, 1 kg

Zytex
Solubilization by production of organic acids

Phosphate Solubilizing Bacteria in P’RISE are known to reduce the pH of substrate by secretion of number of organic acids such as Formic, Acetic, Propionic, Lactic, Glycolic, Fumaric & Succinic acid. The organic and inorganic acids convert tri-calcium phosphate to di and mono basic phosphates with the net result of an enhanced availability of the phosphorous to the plant.

Solubilization by production of phosphatase enzymes

Phosphate Solubilizing Bacteria in P’RISE are helpful in releasing phosphates from the organic complexes by mineralization. Plant cannot uptake phosphates in organic form directly, therefore, it must be first transformed into inorganic form after being mineralized and catalyzed by different soil enzyme processes. Soil phosphates help in hydrolysis of soil organic phosphorus which convert it into inorganic forms (HPO$_4^{2-}$ and H$_2$PO$_4^-$) before it can be utilized and taken up by plant roots from the soil solution.

Recommended Crops

- **Fruit** - Grapes, Pomegranate, Banana, Citrus, Mango, Papaya, Strawberry
- **Vegetables** - Tomato, Potato, Brinjal, Capsicum, Chilli, Onion, Cucumber, Gourds, Okra, Cabbage, Cauliflower, Melons
- **Cash Crops** - Cotton, Sugarcane, Tobacco
- **Flowers** - Roses, Gerbera, Carnation, Marigold, Chrysanthemum, Tuberose
- **Cereals** - Maize, Rice, Wheat, Oats
- **Pulses** - Peas, Soybean, Green Gram, Black Gram
- **Oilseeds** - Groundnut, Sunflower

Application Rate

- **Seed Application**: 5-10 g/kg of seeds
- **Soil Application**: 1-2 kg/acre

**Modes of Application**

**Broadcasting** - Mix the recommended quantity of bio-products in 50 kg well decomposed FYM / Compost and broadcast in the field before last interculturing operations before sowing.

**Drenching** - Calculate the volume of water required for drenching to the number of plants in the desired area. Add the recommended dose of formulation in the water and drench it in root zone.

**Fertigation** - It is completely soluble in water giving advantage for easy and labor saving application through drip irrigation system. Mix recommended dose of formulation in ample amount of water and apply to the desired area.

**Seed Treatment** - Can be applied as water based slurry to cover seeds uniformly.