



IRA Biotech

IRA COMPLEX NPK

Biological N.P.K For Higher Yields

IRA NPK is a microbial bio-fertilizer consortium formulated with beneficial nitrogen-fixing, phosphorus-solubilising, and potassium-mobilising microorganisms. It improves nutrient availability (N, P & K) in soil and supports balanced plant growth in field and horticultural crops.

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

- ❖ Nitrogen-fixing bacteria convert atmospheric nitrogen into plant-available forms, supporting crop nutrition.
- ❖ Phosphate-solubilising microbes release bound phosphorus into soluble forms for improved uptake.
- ❖ Potassium-mobilising bacteria enhance the availability of potassium from soil minerals.
- ❖ The microbial consortium improves nutrient cycling and enhances rhizosphere microbial activity.
- ❖ Overall, it supports balanced plant nutrition, root development, and improved crop performance.

Expected Results

- ❖ Supports improved availability of essential nutrients (N, P, and K) in the soil
- ❖ Enhances root development and overall plant vigour
- ❖ Promotes balanced plant growth under varying soil conditions
- ❖ Contributes to improved soil microbial activity and nutrient cycling
- ❖ May support overall crop performance as part of an integrated nutrient management program

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:

Azospirillum.....	1%
Bacillus Megaterium.....	1%
Bacillus Subtilis.....	1%
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

