

Balance nutrients

WHAT IS PLANT NUTRITION ?

Plants use inorganic minerals for nutrition, whether grown in the field or in a container. Complex interactions involving weathering of rock minerals, decaying organic matter, animals, and microbes take place to form inorganic minerals in soil. Roots absorb mineral nutrients as ions in soil water.

Nutrition: *The supply and absorption of chemical compounds needed for growth and metabolism of an organism*

Balance Plant Nutrition

BPN is an integrated approach to meet the nutritional needs of the crop throughout its life-cycle. The focus of BPN is the sustainability of the agro-system. It encompasses the basics of nutrient management and nutrient balancing based on crop type, soil type and stage of plant growth to ensure optimal crop-soil-environment health. BPN does not stop at administering the BIG 3 (Nitrogen, Phosphorus and Potassium), but also incorporates the use of secondary nutrients, micronutrients and organic manures.

Concept of Balanced Plant Nutrition

The concept of balanced nutrition is very simple and was in fact developed more than 150 years ago. The idea is that a crop requires an adequate supply of **all** nutrients for optimum growth. If more than one is in short supply, growth is determined by the nutrient which is in lowest supply. This is similar to the fact that a chain is only as strong as its weakest link.

Advantage of BPN

- Optimizes quantitative as well as qualitative yields.
- Maximizes cost: benefit ratio.
- Avoids wastefulness of applied agro-inputs (better utilization of N, P, K).
- Avoids nutrient antagonisms in soil and plant systems.
- Lowers incidence of plant deficiencies, toxicities and "hidden hunger".
- Produces normal or near-normal crop even under poor soil conditions.
- Maintains a clean and productive soil.
- Renders the plant competent by increasing its immunity to stress and pest attack.
- Reduces environmental hazards.