

Bio Fertilizers – An Introduction

The role of essential macro nutrients such as Nitrogen , Phosphorus , Potassium and other secondary elements is well known for increasing the productivity of land.

Population explosion has escalated the pressure on higher productivity per unit of land. Modern agriculture emphasized using hybrid seeds, high yielding varieties that are highly responsive to large doses of chemical fertilizers and irrigation. This has resulted in soil being deprived of essential plant nutrients and nourishing organic matter that had always been available to plants when natural farming was being practiced historically.

Chemical fertilizers which are now being used extensively since the Green revolution have depleted soil health by making the soil ecology non - inhabitable for soil micro flora and micro fauna which are largely responsible for maintaining soil fertility and providing some essential and indispensable nutrients to plants. It has now become an imperative to restore the soil with a beneficial microbe population by using Bio Fertilizers

Bio Fertilizers contain live cells of specific isolated strains of bacteria and fungi which is formulated in suitable carriers. These microbes upon application to soil under suitable conditions secrete metabolites and enzymes which make the deficient element available to the plant in an assimilable form. Nitrogen fixing bacteria fixes atmospheric nitrogen in soil while Phospho bacteria solubilizes insoluble fixed phosphorus in soil , potassium mobilizing bacteria mobilizes the immobile potassium in soil and similarly other microbes mobilize / solubilize the element in soil and make it available to the plant. VAM infected roots penetrate the soil effectively and make relatively unavailable elements such as Phosphorus, Copper and Zinc available to the plant. These beneficial microorganisms work incognito to maintain the ecological balance by active participation in carbon, nitrogen, sulphur and phosphorous cycles in nature.

Agri Life manufactures the following Bio Fertilizers :

1. Nitrogen fixing bacteria
2. Phosphorus solubilizing bacteria
3. Potassium mobilizing bacteria
4. Ferrous mobilizing bacteria
5. Zinc mobilizing bacteria
6. Sulphur mobilizing bacteria
7. Manganese solubilizing microbe
8. Vesicular Arbuscular Mycorrhizae (VAM)

Bio Fertilizers are a suitable supplement to chemical fertilizers to meet the integrated nutrient demand of the crops. Application of Biofertilizers results in increased mineral and water uptake, root development, vegetative growth and yield of a good quality. They are eco friendly, non toxic, easy to use, economical bio solutions that improve soil health and crop productivity.