

ANC ENZYME SOLUTIONS PTE LTD

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Assimil-N & Assimil-P

(Biofertilizers)

Biofertilizers are Microbial products containing living cells of different types of microorganisms possess the innate ability either to fix the atmospheric nitrogen or mobilize solubilizes phosphatic nutrient elements from non-usable to usable from through biological process. Needed to be applied to soil to enhance microbial activity in the rhizosphere.

Playing a significant role in integrated plant nutrient systems (IPNS).

Types of Bio fertilizers

- Nitrogen fixers
- Phosphate solubilisers

Nitrogen fixers Assimil-N (Azospirillum)

- It is widely recommended because of its easy adaptability and limited host specificity.
- Also known to secrete growth promoting substance like gibberellic acid and IAA, which enhance root proliferation, and growth of crop plants.

Assimil-N having ability to fix 25-40 kg N/ha/year

- Phosphate solubilisers Assimil-P (Bacillus megaterium:Pseudomonas striata)
- Assimil-P Posses the ability to solubilise insoluble forms of phosphorus and make it available to plants.
- Solubilization affected by the secretion of organic acids and enzymes which facilitate the crop to assimilate phosphorus easily known to produce amino acids and growth promoting substances which help in better growth of plants.
- Assimil-P solubilise and made available about 30 KG Phosphorus/ha/annum.

Applications

Soil Application

- Mix Assimil-N and Assimil-P required for 1 ha (2 kg each) and add this mixture to 10 lit of water.
- Sprinkle the suspension on 100 kg FYM and mix uniformly.
- Apply the mixture near the root zone along the planting rows and cover with soil.

Seed treatment

Prepare slurry of Assimil-N 200g + Assimil-P 200g with any wetting agent and mixed with 1 kg of seeds and ensure uniform seed coating.

Dry in shade and sow the seeds within an hour of treatment.

Advantages of Biofertilizers

- Harnesses atmospheric nitrogen and makes it available directly to plants.
- Increases phosphorus uptake by solubilising and releasing unavailable phosphorus
- Enhances root proliferation due to release of growth promoting hormones.
- Increases the crop yields by 10-25%.
- Improves soil properties and sustain soil fertility.
- Are cost effective and environment friendly.
- Cost benefit ratio of biofertilizers is fairly high.

Precautions to Be Taken While Applications of Biofertilizers

- Do not mix biofertilizers with fertilizers, insecticide and herbicides.
- Treat the seed with bio fertilizer with a gap of 24 hrs if seeds are to be treated with other types of dressing chemicals (fungicides, herbicides, etc.)
- Store biofertilizers packets away from sunlight or heat.
- Use biofertilizer before the expiry date indicated on the packet.
- Irrigation has to be given after biofertilizer application.

Shelf life

Six months year if stored at 20-25° C and if unopened.

Packing

25Kg HDPE Drum.