



PRATHISTA INDUSTRIES LIMITED

BIOFERTILIZERS

1. Azoto

The aerobic bacteria azotobacter chroococcum known to fix considerable quantity of nitrogen in the range of 20-40 kg of nitrogen / ha in the rhizosphere in non-leguminous crops. The lack of organic matter in the soil is a limited factor in the proliferation of azotobacter in the soil. The hormone helps plants in better germination, early emergence and better root development.

Benefits:

- Fixes atmospheric nitrogen which is a renewable source of energy.
- Nitrogen fixed is immediately available to the plants.
- Stimulates growth and produces green colour characteristics of a healthy plant.
- Improves soil properties and sustains soil fertility aids utilization of potash, phosphorus and other nutrients.
- Encourages plumpness and succulence of fruits and grains and increases protein percentage.
- Increase the yield from 10% to 30%.
- Improves the quality of produce and thus fetches good price.

Recommended Crops: Paddy, wheat, cotton, maize, barley, sorghum, oat, sugarcane, sugar-beet, brinjal, potato, cabbage, cauliflower, onion, pulses, oilseeds, fruits, flowers, medicinal plants, plantation crops and all other crops.

Directions for use:

Seed treatment: Mix 50ml. of **Azoto** with 1 kg of seed in required quantity of water and dry in shade for 15-20minutes before sowing.

Soil Treatment: Mix 1 ltr of **Azoto** with 50 kg of soil/ FYM/ Vermicompost/ compost maintain moisture for 3-5 days in shade, broadcast in one acre at the time of sowing.

Set/ Seedling Treatment: Mix 250ml of **Azoto** in 20-30 liter water in a container and dip the seedling/ setting/ rhizomes for 30 minutes before transplanting.

For Drip/ Spray: Mix 1ltr of **Azoto** with 200 liter water and spray near the root zone of the crop in one acre.

2. **AZOTOFIX:**

Recommended Crops: Paddy, wheat, cotton, maize, barley, Jawar, sugarcane, sugar-beet, potato, Brinjal, cauliflower, all medicinal and aromatic plants.

Seed Treatment: 250 gm is required for 10-15 kgs of seeds; mix the seeds with molten and cooled gum Arabica/ jaggery solution followed by mixing with **Azotofix**. Dry in air under shade for 30-60 minutes before sowing.

Soil Treatment: Mix 2-3 kgs **Azotofix** with 50kg FYM/ Vermicompost/ Compost/ Soil. Keep this mixture in shade for 1-3 days maintaining moisture. Broadcast in one acre at the time of sowing.

Seedling/ sets/ Rhizome treatment: Mix 1kg of **Azotofix** in 20-30 liters of water in a container and dip the seedling/ sets/ rhizomy for 15-20 minutes before transplanting.

3. AZOSP

Azospirillum is the associate symbiotic nitrogen fixer, aerobic free living does the job of making the atmospheric nitrogen available to various crops. This nitrogen-fixing bacterium when applied to the soil undergoes multiplication in billions and fixes atmospheric nitrogen in the soil (plant root region).

Recommended Crops: Paddy, wheat, cotton, maize, barley, sorghum, oat, sugarcane, sugar-beet, brinjal, potato, cabbage, cauliflower, onion, pulses, oilseeds, fruits, flowers, medicinal plants, plantation crops and all other crops.

Directions for use:

Seed treatment: Mix 50ml. of **Azosp** with 1 kg of seed in required quantity of water and dry in shade for 15-20minutes before sowing.

Soil Treatment: Mix 1 ltr of **Azosp** with 50 kg of soil/ FYM/ Vermicompost/ compost maintain moisture for 3-5 days in shade, broadcast in one acre at the time of sowing.

Set/ Seedling Treatment: Mix 250ml of **Azosp** in 20-30 liter water in a container and dip the seedling/ setting/ rhizomes for 30 minutes before transplanting.

For Drip/ Spray: Mix 1ltr of **Azosp** with 200 liter water and spray near the root zone of the crop in one acre.

4. AZOFIX:

Recommended Crops: Paddy, wheat, cotton, maize, barley, Jawar, sugarcane, sugar-beet, potato, Brinjal, cauliflower, all medicinal and aromatic plants.

Seed Treatment: 250 gm is required for 10-15 kgs of seeds; mix the seeds with molten and cooled gum Arabica/ jaggery solution followed by mixing with **Azofix**. Dry in air under shade for 30-60 minutes before sowing.

Soil Treatment: Mix 2-3 kgs **Azofix** with 50kg FYM/ Vermicompost/ Compost/ Soil. Keep this mixture in shade for 1-3 days maintaining moisture. Broadcast in one acre at the time of sowing.

Seedling/ sets/ Rhizome treatment: Mix 1kg of **Azofix** in 20-30 liters of water in a container and dip the seedling/ sets/ rhizomy for 15-20 minutes before transplanting.

5. KMB Liquid

It is a liquid biofertilizer formulation containing Potash Mobilizing Bacteria. This is capable of mobilizing potash in soil. It increases disease resistant, secretes growth promoter to increase crop productivity.

Recommended Crops: Paddy, wheat, cotton, maize, barley, sorghum, oat, sugarcane, sugar-beet, brinjal, potato, cabbage, cauliflower, onion, pulses, oilseeds, fruits, flowers, medicinal plants, plantation crops and all other crops.

Directions for use:

Seed treatment: Mix 50ml. of **KMB** with 1 kg of seed in required quantity of water and dry in shade for 15-20minutes before sowing.

Soil Treatment: Mix 1 ltr of **KMB** with 50 kg of soil/ FYM/ Vermicompost/ compost maintain moisture for 3-5 days in shade, broadcast in one acre at the time of sowing.

Set/ Seedling Treatment: Mix 250ml of **KMB** in 20-30 liter water in a container and dip the seedling/ setting/ rhizomes for 30 minutes before transplanting.

For Drip/ Spray: Mix 1ltr of **KMB** with 200 liter water and spray near the root zone of the crop in one acre.

6. KMB Granules:

It is available in granular formation with high cell count of 5×10^7 /gm CFU, helps to mobilize the insoluble form of potassium for crop growth at faster rate. It also helpful in improvement of soil health and texture as well as better root system.

Recommended Crops: Paddy, wheat, cotton, maize, barley, Jawar, sugarcane, sugar-beet, potato, Brinjal, cauliflower, all medicinal and aromatic plants.

Seed Treatment: 250 gm is required for 10-15 kgs of seeds; mix the seeds with molten and cooled gum Arabica/ jaggery solution followed by mixing with **KMB**. Dry in air under shade for 30-60 minutes before sowing.

Soil Treatment: Mix 2-3 kgs **KMB** with 50kg FYM/ Vermicompost/ Compost/ Soil. Keep this mixture in shade for 1-3 days maintaining moisture. Broad cost in one acre at the time of sowing.

Seedling/ sets/ Rhizome treatment: Mix 1kg of **KMB** in 20-30 liters of water in a container and dip the seedling/ sets/ rhizomy for 15-20 minutes before transplanting.

7. ZMB Liquid

It is a liquid biofertilizer formulation containing Zinc Mobilizing Bacteria. This is capable of mobilizing zinc in soil. It increases disease resistant, secretes growth promoter to increase crop productivity.

Recommended Crops: Paddy, wheat, cotton, maize, barley, sorghum, oat, sugarcane, sugar-beet, brinjal, potato, cabbage, cauliflower, onion, pulses, oilseeds, fruits, flowers, medicinal plants, plantation crops and all other crops.

Directions for use:

Seed treatment: Mix 50ml. of **ZMB** with 1 kg of seed in required quantity of water and dry in shade for 15-20minutes before sowing.

Soil Treatment: Mix 1 ltr of **ZMB** with 50 kg of soil/ FYM/ Vermicompost/ compost maintain moisture for 3-5 days in shade, broadcast in one acre at the time of sowing.

Set/ Seedling Treatment: Mix 250ml of **ZMB** in 20-30 liter water in a container and dip the seedling/ setting/ rhizomes for 30 minutes before transplanting.

For Drip/ Spray: Mix 1ltr of **ZMB** with 200 liter water and spray near the root zone of the crop in one acre.

8. ZMB Granules:

It is available in granular formation with high cell count of 5×10^7 /gm CFU, helps to mobilize the insoluble form of zinc for crop growth at faster rate. It also helpful in improvement of soil health and texture as well as better root system.

Recommended Crops: Paddy, wheat, cotton, maize, barley, Jawar, sugarcane, sugar-beet, potato, Brinjal, cauliflower, all medicinal and aromatic plants.

Seed Treatment: 250 gm is required for 10-15 kgs of seeds; mix the seeds with molten and cooled gum Arabica/ jaggery solution followed by mixing with **ZMB**. Dry in air under shade for 30-60 minutes before sowing.

Soil Treatment: Mix 2-3 kgs **ZMB** with 50kg FYM/ Vermicompost/ Compost/ Soil. Keep this mixture in shade for 1-3 days maintaining moisture. Broad cost in one acre at the time of sowing.

Seedling/ sets/ Rhizome treatment: Mix 1kg of **ZMB** in 20-30 liters of water in a container and dip the seedling/ sets/ rhizomy for 15-20 minutes before transplanting.

9. PSB Liquid

It is a liquid biofertilizer formulation containing Phosphate Solubilising Bacteria. This is capable of solubilizing phosphate in soil. It increases disease resistant, secretes growth promoter to increase crop productivity.

Recommended Crops: Paddy, wheat, cotton, maize, barley, sorghum, oat, sugarcane, sugar-beet, brinjal, potato, cabbage, cauliflower, onion, pulses, oilseeds, fruits, flowers, medicinal plants, plantation crops and all other crops.

Directions for use:

Seed treatment: Mix 50ml. of **PSB** with 1 kg of seed in required quantity of water and dry in shade for 15-20minutes before sowing.

Soil Treatment: Mix 1 ltr of **PSB** with 50 kg of soil/ FYM/ Vermicompost/ compost maintain moisture for 3-5 days in shade, broadcast in one acre at the time of sowing.

Set/ Seedling Treatment: Mix 250ml of **PSB** in 20-30 liter water in a container and dip the seedling/ setting/ rhizomes for 30 minutes before transplanting.

For Drip/ Spray: Mix 1ltr of **PSB** with 200 liter water and spray near the root zone of the crop in one acre.

10.PSB Granules:

Phosphorus is a major nutrient for plants inducing vigorous growth and also contributing to their disease resistance. Phosphorous helps in root formation and plant growth. It is highly efficient phosphate solubilizing bacteria that grow and secrete organic acids, which dissolve this unavailable phosphate into soluble form and make it available to the plants. Thus, the residual phosphate fertilizers in the soil can be well utilized and external application can be optimized. It improves soil quality with subsequent uses. It should not be mixed with antibacterial agents and inorganic fertilizers

Recommended Crops: Paddy, wheat, cotton, maize, barley, Jawar, sugarcane, sugar-beet, potato, Brinjal, cauliflower, all medicinal and aromatic plants.

Seed Treatment: 250 gm is required for 10-15 kgs of seeds; mix the seeds with molten and cooled gum Arabica/ jaggery solution followed by mixing with **PSB**. Dry in air under shade for 30-60 minutes before sowing.

Soil Treatment: Mix 2-3 kgs **PSB** with 50kg FYM/ Vermicompost/ Compost/ Soil. Keep this mixture in shade for 1-3 days maintaining moisture. Broad cost in one acre at the time of sowing.

Seedling/ sets/ Rhizome treatment: Mix 1kg of **PSB** in 20-30 liters of water in a container and dip the seedling/ sets/ rhizomy for 15-20 minutes before transplanting.