- Biofertilizers treated seed should not be mixed with chemical fertilizers, pesticides and insecticides.
- If seeds are to be treated with fungicides, treat the seeds first, then with double the recommended dose of Biofertilizers.
- Seed treatment and mixing of Biofertilizers with compost should be done in the shade.
- Used of Biofertilizer is being emphasized along with chemical fertilizers and organic manures. Biofertilizers are not replacement of chemical fertilizers but can supplement their requirements.

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## SEED TREATMENT WITH BIOFERTILIZER IN CEREAL



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## **BIOFERTILIZER:**

Biofertilizers are carrier based preparations containing effective strains of microorganism like Bacteria, Fungi,Algae along or in combination in sufficient numbers when incorporated with seeds, seedlings and in soils, they provide nutrients to the plant through microbial activity.

## **BIOFERTILIZERS:**

- Azotobacter
- Azospirillum
- Phosphotika

#### **CEREALS:**

#### **MAJOR CEREAL**

- Paddy
- Wheat
- Maize

# MINOR CEREAL

- Barley
- Oats

- Millets
- Sorghum, etc

## METHODS OF APPLICATION

#### SEED TREATMENT

Suspend 200gm of Azotobacter or Azospirillum + 200gm of Phosphotika in 300-400ml of water and mix thoroughly. Mix this pates with 10-12kg of seeds with hands till all the seeds are uniformly coated. Dry the coated seeds in shade and sow immediately.

# SEEDLING ROOT DIP TREATMENT

Mix 1kg Azotobacter and 1kg Phosphotika in sufficient quantity of water and dip the roots of seedlings to be transplanted in 1 acre in this suspension for 30 minutes or more and transplanted immediately. In case of paddy (low land), Prepare a small seedbed in field and fill with 3-4 inches of water. Put 2kg of Azospirillum + 2kg Phosphotika in this water and mix. Dip the roots of seedling to be planted in 1 acre in this suspension for 8-12 hours (overnight) and transplanted.

# **BENEFITS:**

- Increase crop yield by 20-30%.
- Replace chemical fertilizers by 25%.
- Restore natural fertility.
- Provide plant nutrients at very low cost.
- Have no harmful effects on soil fertility and plant growth.
- Hasten seed germination, flowering and maturity in crop.
- Helps in recycling/ decomposition of organic waste.
- Provide residual effects for subsequent crops.
- Pollution free and eco-friendly.

#### **PRECAUTIONS:**

- Store Biofertilizers in cool and dry place.
- Open the packets just before use and all its content be used at time.