Ojas

Ojas – Azotobacter

Nitrgen Fixing Inoculum.

Ojas - Azotobacter is a unique liquid based formulation prepared by specially developed patented technology. Ojas - Azotobacter contains various microbes useful for nitrogen fixatation.

Composition:

Bacterial inoculum population density (*Azotobacter chroococcum*) Microbial Media Residue $2 \times 10^{9} \text{ min. C.F.U/ml}$

Product Mode of Action

Microbes present in Ojas – Azotobacter perform two different set of action to make Nitrogen available to plant

a. Direct Nitrogen fixatation

Near about 78 % nitrogen is available in air. But it is in the form of N_2 . whereas plant required nitrogen in the form of NO_3 . So even plenty of nitrogen in air, plant cannot use it as a food. Microbes present in Ojas – Azotobacter when reach up to root zone of any crop first they releases various enzymes like, Nitrogenous. These enzyme acts on linkage bond between two nitrogen and by various conversions make nitrogen available to plant

Conversion step during nitrogen fixation

Atmospheric Nitrogen (N2) • Ammonia (NH3) • Ammonium (NH4) • Nitrate (NO2) • Nitrate (NO3)

By this nitrogen make available to plant.

b. Indirect Nitrogen availability

Most of farmers have a tendency to use chemical nitrogen sources to mitigate nitrogen demand by plant. Generally urea is the universal source use by most of the farmer. Nitrogen available from urea is in the form of Amine (NH_2) so here again it is different from actual requirement of plant i.e. NO_3

Microbes present in FB Nitro here also help to convert NH₂ form of nitrogen available from urea to required Form by plant i.e. NO₃

Conversion step when using chemical fertilizer (Urea)

Amine nitrogen (NH₂) • Ammonia (NH₃) • Ammonium (NH₄) • Nitrate (NO₂) • Nitrate (NO₃)

By this nitrogen make available to plant.

Product benefits:

- Fix at lease up to 20 to 40 kg atmospheric nitrogen in soil and by these help to reduce the amount of synthetic nitrogenous fertilizer application

- Help to fully utilize chemical fertilizer by acting as a catalyst (by enzyme secretion) during conversion of available nitrogen from to required nitrogen from for plant

- It help to increases the crop yield
- Help to increases natural soil biomass so by these help to improve soil health
- Improve plant vigor, plant health etc.

Direction for use:

Seed Treatment:

Mix 10 ml of Ojas per kg of seeds with a sufficient solution of 5 % jaggery. Dry the seed in shade for half an hour. Sow the seeds within 24 hours for maximum advantage.

Seedling Root Dipping:

Mix 1 lit of Ojas in 100 liter of 5 % jaggery water. Dip the root portion of the seedling required for an acre in the mixture for 30 minutes before transplanting.

Set Dipping:

Mix 1 lit of Ojas in 100 liter of 5 % jaggery water and dip the setts required for an acre in this mixture for half an hour (30 min) before transplanting.

Soil application:

Mix 1 lit of Ojas with 100 kg of well compost FYM or any other biocompost and simply broad cast in the main field just before sowing or transplanting or apply in standing crop by row or furrow or broad casting method in sufficient moisture.

Drip application:

Add 1 lit Ojas in drip tank contain clean water. Start the drip and liberate contain of drip tank in drip line .Microbes reach by these up to root zone of every plant.

Packing available

- Liquid form – 1 lit, 5 lit, 20 lit,

Self life – Liquid 1 years

