

# NITRO-FIX™

## AEROBIC BACTERIAL PACKAGE

### GENERAL INFORMATION:

Nitro-Fix is a two-part beneficial bacteria package. First it aids in Crop Residue (stubble) break down. Next it helps fix nitrogen. Nitrogen fixation is considered to be the second most important bio-chemical reaction after Photosynthesis known to Man. With large-scale chemical use along with synthetic fertilizer application, the natural bacterial life in farm soils have been reduced almost to the point of dead soil. Because of the important contributions made by beneficial bacteria to the fertility level of the soil, it has been stated that if their functions were to fail, life for higher plants and animals would cease.

Nitrogen fixing bacteria play a vital role in plant growth since they are capable of converting atmospheric Nitrogen into useful forms in the soil. **NITRO-FIX™** is formulated to rapidly replace reduced bacteria counts and increase biological activity for maximum plant growth, health, and resistance to pests and diseases. Bacteria work in conjunction with plant life to release minerals, fix nitrogen, breakdown crop residue, and much more. It is acceptable by the OCIA standards as "organic"

### **Aerobic (with air) bacteria** (See our section "**A WORLD UNDER THE SOIL**")

They are also called the beneficial bacteria and they are responsible for breaking down the organic matter in the soil into useable forms for the plant to pick up again. They are also responsible for the nitrogen cycle to become complete. It helps in the nitrification stage that is where the ammonia changes into the nitrate form, which is the only form the plant can use readily. With out these bacteria you will have little to no crop residue break down.

Active ingredients:

- Bacillus subtilis**(2 strains) providing enzymes for the breaking down of plant residues.
- Bacillus megaterium**- aids in breaking down complex sugars after crop residue breakdown,
- Bacillus licheniformis**-produces additional enzymes for crop residue breakdown,
- Lactobacillus plantarum**- breaks down protein into usable nutrients (amino acids).
- **Pediococcus acidilactici, L.Brevis, Streptococcus cremoris, S. Diacetylactis**  
Lactic Acid producing bacteria.

**Azotobacter** Nitrogen fixation bacteria for non legume crops

**Rhizobium** Nitrogen fixation bacteria for legume crops.

Also contains Enzyme cultures of Amylase, B-glucanase and hemicellulose to aid in the Fermentation breakdown of crop residues. Also included is a culture of **saccharomyces cerevisiae** to provide food for the entire blend and Cytokinin / Gibberellin extract of Kelp for growth and stress relief.

The **NITRO-FIX™** formulation is a highly concentrated product with dense populations of all the above. A combination of organic materials maintains the organisms in a live but dormant state. When the product is mixed into chlorine-free water, the organisms come out of dormancy and begin to multiply.

**NITRO-FIX™** is safe, non-toxic to animals and humans. Requires no special precautions or equipment. Do not mix or store near toxic chemicals. Keep away from direct sunlight. Do not freeze. Spray tank must be free of all toxic chemicals before mixing.

Very cost effective 1 lb **NITRO-FIX™** covers 12 acres. (Use with a Minimum of 50 gallons of water).

*\*Be sure the water is **chlorine-free**. Do not apply with any other products. Broadcast directly onto soil, then till, turn, or water in. Works best if applied before discing under old crop residue.*

**NOTE:** Bacterial action slows as soil temperatures drop, organic matter is low or if chemicals have been used.

**STORAGE:** Store in a cool dry place (preferably a refrigerator type), reseal package and keep away from toxic type chemicals. (Chemicals will kill Bacteria!) After mixing with water use as soon as possible.

**NITRO-FIX™** is available in 1lb, 5lb, and 10lb packages.