Gokulam Biotech

Pioneers in Liquid Bio-inoculants Technology

LIQUID BIO-FERTILIZERS

1. **Krishi - Azospirillum (Nitrogen fixing)**
2. **Krishi-Phosphobacaterium(Phosphorus solubilising)**
3. **Krishi - Potash Mobiliser (Potash mobilizing)**
4. **Krishi - Zinc Solubiliser (Zinc Solubilising)**

Other Nitrogen fixing bacteria:

1. **Krishi - Acetobacter (mainly for sugarcane)**
2. **Krishi - Rhizobium (for pulse crops)**
3. **Krish - Azotobacter (for horticultural crops)**
4. **Krishi – Glucanacetobacter diazotrophicus (for sugarcane)**

1. LIQUID AZOSPIRILLUM:

Azospirillum is a beneficial soil borne bacterium capable of fixing considerable quantity of nitrogen in soil. This bacterium when applied to soil multiplies in billions and absorbs the atmospheric nitrogen and fixes the same in the root zone of soil. While addition of urea in to soil gives readily available form of nitrogen to the plant, Azospirillum slowly improves soil nitrogen status by fixing atmospheric nitrogen. Addition of well-decomposed organic manure is very important for multiplication of Azospirillum. Repeated addition of Azospirillum, will help to reduce and eventually stop addition of nitrogenous fertilizers in soil.

Krishi- Azospirillum has bacterial count of CFU, 2×10^9 /ml.
Krishi - Azospirillum can be used for all crops.

Since Krishi - Azospirillum is in liquid formulation, it can be easily applied to soil as basal dose.

Dose: 250 ml per acre in adequate quantity of water or applied mixed with small quantity of well decomposed organic manure.

1. *Krishi– PHOSPHOBACTERIUM:*

Krishi - Phosphobacterium is a liquid bio-fertilizer made of pure culture of naturally occurring soil-borne Phosphorus solubilising bacterium.

When applied to the soil, Phosphobacterium multiplies, produces organic acids and converts insoluble inorganic phosphatic compounds in soil into soluble form and makes them available to plants. Long term application of Phosphobacterium, reduces requirement of Phosphatic fertilizers.

Krishi – Phosphobacterium has bacterial count of CFU count of 2×10^9 /ml.

Krishi - Phosphobacterium can be used for all crops.

Since Krishi Phosphobacterium is in liquid formulation, it can be easily applied to the soil.

Dose: 250 ml per acre in adequate quantity of water or applied mixed with small quantity of well decomposed organic manure.

2. *Krishi – POTASH MOBILIZER:*

Krishi - Potash Mobiliser is a liquid bio-fertilizer made of pure cultures of naturally occurring soil-borne Potash Mobilising bacterium.

When applied to soil, Potash Mobilising bacterium multiplies, and helps to mobilise potassium fixed in soil. This mobilized potassium is easily available to the plants and reduces Potassium application.

Krishi – Potash Mobiliser has bacterial count of CFU count of 2×10^9 /ml.

Krishi Potash mobiliser can be used for all crops.

Since Krishi Potash mobiliser is in liquid formulation, it can be easily applied to the soil.

Dose: 250 ml per acre in adequate quantity of water or applied mixed with small quantity of well - decomposed organic manure.

1. Krishi - ZINC SOLUBILISER:

Krishi Zinc Solubiliser is a liquid bio-fertilizer made of pure cultures of naturally occurring soil-borne Zinc Solubilising bacterium.

When applied to soil, Krishi Zinc Solubiliser bacterium multiplies, secrete organic acids and helps to solubilise insoluble and chelated Zinc fixed in soil. This mobilized zinc is easily available to the plants.

Krishi – Zinc Solubiliser has bacterial count of CFU 2 x 10^9/ml.

Krishi Zinc Solubiliser can be used for all crops.

Since Krishi Zinc Solubiliser is in liquid formulation, it can be easily applied to the soil.

Dose: 250 ml per acre in adequate quantity of water or applied along with well decomposed organic manure.

KRISHIZYME (Organic Growth Promoter)

Krishizyme is an organic growth promoter and it is a fermentation product based on natural fermentation of various beneficial organisms. It contains a concoction of amino acids, enzymes and other beneficial growth factors. Krishizyme improves crop growth by improving photosynthetic rates of plants and makes the plant resistant to pests and diseases by making balanced nutrition available to plants.

Dose: Foliar application, @ 250 ml per acre in adequate quantity of water and sprayed on the leaf system of plants.

Gokulam Biotech - LIQUID BIO- PESTICIDES

1. Verelac (Verticillium lecani for the control sucking pests)
2. Beevicide (Beauveria bassiana for the control borer type pests)
3. Grubkill (Combination bioproduct/ borers and sucking pestcontrol)
4. Pelicide (Paecilomyces lilacinus, for nematode control)
5. Bioter (Combination bioproduct for Termite control)
6. Biomite (combination bioproduct for Mite control)

1. VERELAC:

Based on entomopathogenic fungus, Verticillium lecani.
Target Pests: All sucking pests like, aphids, jassids, mealybugs, white flies, mites etc.
Mode of action: Entry of fungal hyphae into insect body, parasitisation and sporulation and killing of insects in about 5 to 7 days.
LIQUID FORMULATION, Foliar spray 250 ml per acre in 250 to 400 lit water.
Shelf-life: More than one year
Minimum CFU count: 2 x 10^{8} per ml

2. BEEVICIDE:

Based on entomopathogenic fungus. Beauveria bassiana.
Target pests: All borers, THRIPS ETC
Mode of action> Digesting of insect cuticle enzymatically by fungus and parasitisation,and control of insects in about 5 to 7 days.
LIQUID FORMULATION, Foliar spray @ 250 ml per acre in 250 to 400 lit water.
Shelf life: More than one year
Minimum CFU: 2 x 10^{8} per ml.

3. GRUBKILL:

Combination product containing selected fungus and bacteria.
Target pests: Sucking pests, borers and hard bodied insects..
Mode of action: Entry of fungal hyphae into insect body, parasitisation and sporulation and killing of insects in about 5 to 7 days.
Liquid formulation, foliar spray @ 250 ml per acre in 250 to 400 lit water.

Shelf-life: More than one year.
Minimum CFU: 2 x 10 ^{8} per ml.

4. PELICIDE (Bio-Nematicide):

Based on entomopathogenic fungus, Paecilomyces lilacinus.
Target pests: All nematodes.:
Mode of action: Same similar to Verticillium lecani.
Liquid formulation, soil drenching @ 1000 ml per acre.
shelf-life: more than one year.
Minimum CFU: 2 x 10 ^{8} per ml

5. BIOTER (Bio-termiticide):

Based on Verticillium lecani and other bacterial agents.
Target Pests: Termites
Mode of action: Same as for Verelac.
Shelf life: More than one year
Liquid formulation: soil drenching @ 1000 ml per acre.
Minimum CFU 2 x 10 ^{8} per ml

6. BIOMITE:

Combination of Verticillium lecani and other entomopathogenic organisms.
Target Pests: Mites in field crops
Liquid Formulation; foliar spray @ 250 ml per acre.
Shelf life more than one year
CFU: 2 x 10 ^{8} per ml

7. Other microbial insecticides available:

1. **Paecilomyces fumosoroseus (for sucking pest control)**

Gokulam Biotech – LIQUID BIOFUNGICIDES:

Trichoderma viride	**(for control of soil-borne diseases)**
Pseudomonas fluorescens	**(for controlling foliar diseases)**
Gliocladium virens	**(For control of soil borne diseases)**
Bacillus subtilis	**(for control of soil borne diseases)**

1. Trichoderma viride and Harzianum:

Biofungicide.
For the control of soil-borne fungal diseases such as root rot caused by organisms like Fusarium etc.
Liquid formulation, soil drenching @ 250 ml per acre.
Shelf-life: More than one year.
Minimum CFU = 2×10^{8} per ml

2. PSEUDOMONAS:

Biofungicide based on Pseudomonas fluorescens
For the control of all foliar diseases. Also acts as growth promoter by secreting growth factors.
Liquid formulations, foliar spray @ 250 ml per acre in 250 to 400 lit water
Minimum CFU: 2×10^{9} per ml.

3. TRYPAE MIX

Combination of Trichoderma and Paecilomyces for the combined control of fungal pathogens and nematodes in soil.
Liquid formulation,; soil drenching @ 250 ml per acre (severe cases @1000 ml/acre).
Shelf life: more than one year.
Minimum CFU: 2×10^{8} per ml.

4. BIOBLIGHT:

A combination of bacterial based biofungicides for the prevention and control of bacterial blight disease of horticultural crops.

Gokulam Biotech – Bio Composting and Bioremediation Cultures

1. **Bio-Composting Cultures: Used for composting farm-generated biomass.**

1. **Bioremediation Cultures: For reclamation of alkali soil.**

CERTIFICATION and CRENDITIALS

Products are certified by the following Certification Agencies:

1. **IMO CONTROL: For use in organic farming**

   All carrier based bio-products under Romvijay brand are IMO certified (registration for liquid formulations in progress).

2. **CENTRAL INSECTICIDE BOARD (CIB) (in Romvijay Brand Name)**

   a. **Verticillium**
   b. **Beauveria**
   c. **Pseudomonas**
   d. **Trichoderma**

   Registration of Liquid formulations under CIB is in progress.

3. **ISCOP (Indian Society for the Certification of Organic Products) (Approved by APEDA)**

   All bio-products certified by ISCOP.

4. **ISO 9001-2000 CERTIFIED**

In addition all bio-products of GOKULAM are tested periodically at The Regional Center for Biofertilizers and Organic Farming, Bangalore and at various Government Research laboratories and Agricultural Universities.

PACKING: All products are available in 250 ml and 1000 ml packings.

TAX: Since all our products are organic, there is no sales tax or excise duty.

For further details including prices please contact:

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