100% Chemical Free Farming Solutions For *Pistacia vera*

Make in India

Warkem®
Building Blocks For Healthy Humanity

Warkem® Biotech

Warkem Biotech

Partnering Health for Humanity

Do You Know What You're Eating?

We provide 100 % Chemical Free Solutions

Warkem Biotech Pvt. Ltd.
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Warkem®
PARTNERING HEALTH FOR HUMANITY

Introduction :

The green revolution brought impressive gains in food production but with insufficient concern for sustainability. Dependence on chemical fertilizers for future agricultural growth would mean further loss in soil quality, possibilities of water contamination and unsustainable burden on the fiscal system.

In modern agriculture, due to heavy usage of chemical fertilizers and harmful pesticides on the crops, sustainability of the agriculture systems collapsed, cost of cultivation soared at a high rate, income of farmers stagnated and food security and safety became a daunting challenge. The use of chemical pesticides and fertilizers in Indian agriculture has seen a sharp increase in recent years and in some areas has reached alarming levels with grave implications for human health, the ecosystem and ground water. It is therefore urgent that environmental friendly methods of improving soil fertility, pests and disease control are used.

The current trends in developed and developing countries in food habits among people are focused towards organic agricultural produces.

* Today, biofertilizers / biopesticides have emerged as a highly potent alternativeto chemical fertilizers due to their eco-friendly, easy to apply, non-toxic and cost effective nature.

* Biofertilizers / Biopesticides have important and long term environmental implications, negating the adverse effects of chemicals.

* Biofertilizers are biologically active products or microbial inoculants viz., formulations containing one or more beneficial bacteria or fungal strains which add, coserve and mobilize crop nutrients in the soil. It contains living micro organisms which when applied to seed, plant surfaces, or soil colonizes the rhizosphere or the interior of the plant and promotes growth by increasing the availability of primary nutrients to the host plant.

* Biofertilizers play a very significant role in improving soil fertility by fixing atmospheric N,solubilising insoluble soil phosphates and producing plant growth substances in the soil.

They are called as bio inoculants which improve plants growth and yield.

* Biopesticides are based on microorganism or natural products target specific and do not leave harmful residues & destroy agricultural pests.

* Biopesticides are usually inherently less toxic; generally affect only to target pest, effective in very small quantities, easily biodegradable,thereby resulting in lower exposures and largely avoiding the pollution problems. When used as a component of Integrated Pest Management programs, it can greatly control major pest menace while crop yields remain high.

* Increasing demand for residue free crop protection products is expected to boost the demand for biopesticides in near future globally.

* Growths in organic food market are other driving factors for increasing trend in global biopesticides market, since future organic industry is solely dependent upon the chemical free crop protection products to safeguard crops.

Advantages of biofertilizers :

1) They help to get high yield of crops by making the soil rich with nutrients and useful microor ganisms necessary for the growth of the plants.

2) Biofertilizers have replaced the chemical fertilizers as chemical fertilizers are not beneficial for the plants as they decrease the growth of the plants and make the environment polluted by releasing harmful chemicals.

3) Plant growth can be increased if biofertilizers are used, because they contain natural components which do not harm the plants but do the vice versa.

4) Chemical free soil will retain its fertility which will be beneficial for the plants as well as the environment, because plants will be protected from getting any diseases and environment will be free of pollutants.

5) Biofertilizers protect the plants against drought and other stress conditions.

6) Biofertilizers are cost effective.

7) They are environment friendly and protect the environment against pollutants.

Advantages of biopesticides :

1) Biopesticides are usually inherently less toxic than conventional pesticides.

2) Biopesticides generally affect only the target pest and closely related organisms.

3) Biopesticides often are effective in very small quantities and often decompose quickly.

4) Used as a component of Integrated Pest Management (IPM) programs.

5) To use biopesticides effectively, however, users need to know a great deal about managing pests.

Disadvantages of Chemical Fertilizers / Pesticides :

1) Chemical fertilizers / Pesticides are primarily made from non renewable sources.

2) They help plants to grow but do nothing to sustain the soil.

3) Chemical fertilizers tend to leach, or filter away from the plants, requiring additional applications.

4) Repeated applications of Chemical fertilizers /Pesticides leads to soil pollutions.

5) It enters into fruits & vegetables which is hazardous to human health.

6) It also changes the soil pH, upset beneficial microbial eco systems, increase pests and even contribute to the release of greenhouse gases.

Part 01

Part 02

Product Code : WA321

Product Name	HiFoliarPlus

Application : For Plant Care

Kit Contents :

W180	HiFoliar Nutrient™	Provides necessary foliar nutrition to the crops during various growth stages.
WA306	SuperStiker	Silicon based agricultural wetting agent which when used in combination with W180 increases its wetting, preading, penetration and uptakeability

Significance :

1. This is a combo pack which contains HiFoliar Nutrient™ (W180) & SuperStiker (WA306).
2. W180 provides necessary foliar nutrition to the crops.
3. WA306 when used in combination with the above enhances the efficacy of the foliar spray.
4. Helps in better wetting, spreading, penetration and uptake of the active ingredients.
5. WA306 doesn't allow the product to wash off easily after spraying.

Recommended Dosage : 300GM/100 Litres

Shelf-life :
12 months from the date of packing

Available Packing : 1PK, 6PK (S, M, L, XL Pack sizes)
S - 45 gm
M -300 gm
L - 600 gm
XL - 3 kg

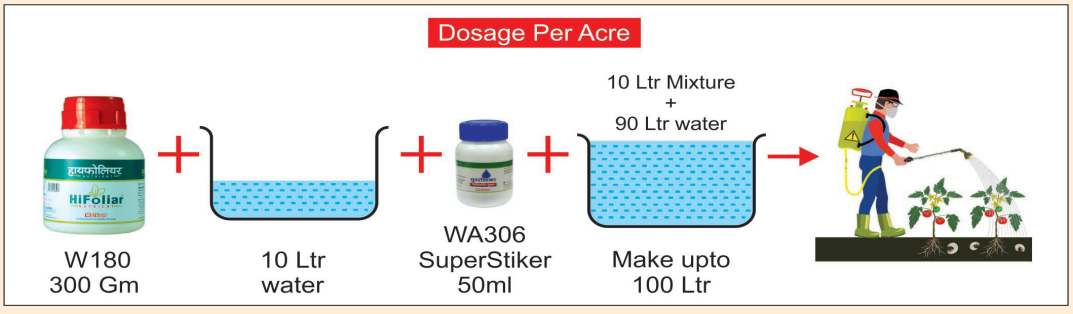

Without HiFoliar Nutrient™ spray | Sprayed with HiFoliar Nutrient™


Non-Sprayed | Sprayed

Effect of HiFoliarPlus on Rice


Non-Sprayed | Sprayed

Effect of HiFoliarPlus on Strawberry



Product Code : WA329

Product Name SuperMykorrizA

Application :

Phosphorus & Micronutrients Provider

Description :

SuperMykorrizA colonizes in or around the roots of plants in order to uptake and transport mineral nutrients from the soil directly into the plant roots. SuperMykorrizA is symbiotically associated with the roots of plants.

Advantages :

1. Improves plant root growth and development
2. Increases the uptake and mobilization of phosphate in all crops
3. Increases and facilitates nutrient and translocation from the soil and root cuticle parenchyma to xylem, Phloem, elements like nitrogen, potassium, Iron, manganese, magne sium, copper, zinc, boron, sulphur & molybdenum
4. Other benefits include
   - Tolerance to drought.
   - Survival in high soil temperature, soil toxins, & extreme pH levels.
   - Protection against root pathogens.
5. Enhances product quality and increases immune power of the crop.

Target Crops :

Cereals, Pulses, Oil seeds, Fruits, Vegetables, Plantation, Fiber crops, Forest and Nursery

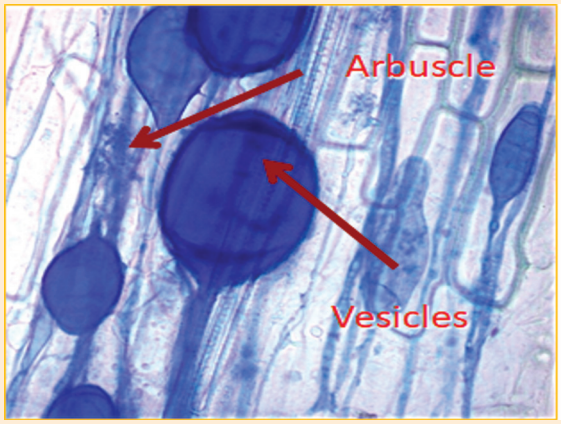
Recommended Dosage : 100g/Acre

Recommended Applications :

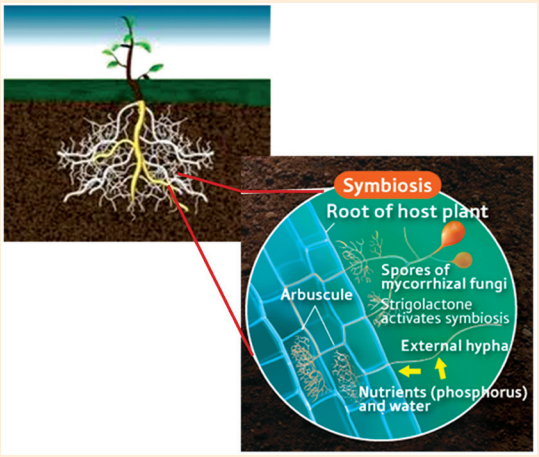
Seed treatment, Seedling treatment, Drenching, Soil application, Drip etc.

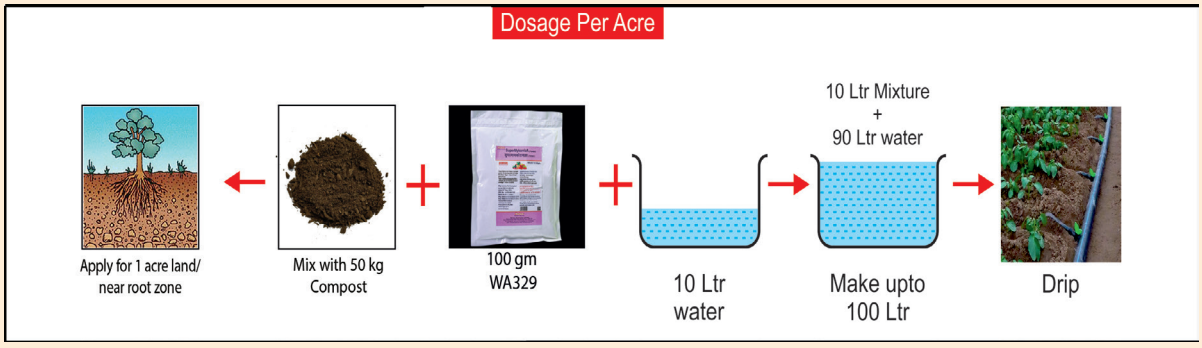
Shelf-life : 12 months from the date of packing

Available Packing : 100G, 500G, 1KG, 5KG



Root Colonization Assay in Plants





Product Code : WA305

Product Name SuperStar

Application : Bioinsecticide

Description :

1. The fungus is known as a entomophagous "white-halo" fungus because of the white mycelial growth on the edges of infected insects. The conidia (spores) of fungus are slimy and attach to the cuticle (outer skin) of insects.
2. The fungus infects insects by producing hyphae from germinating spores that penetrate the insect's integument; the fungus then develops inside the insect body destroying its internal contents, generally resulting in death of the infected host.
3. Under good humidity conditions, the dead host is covered by the fungal spores and hyphae. Infected insects appear as white to yellowish cottony particles.
4. The fungi aids in Integrated pest management.
5. Target pests includes Whiteflies, Thrips, Aphids, Mealy bugs / Scale, Jassids, Leaf hopper.

Target Crops:

Grapes, Apple, Mango, Citrus, Guava, Banana, Paddy, Chilli, Tomato, Brinjal, Coffee, Okra, Onion & Medicinal Crops etc.

Recommended Dosage : 2ml/Acre

Recommended Applications :

Seed treatment, Seedling treatment, Drenching, Drip, Folior application etc.

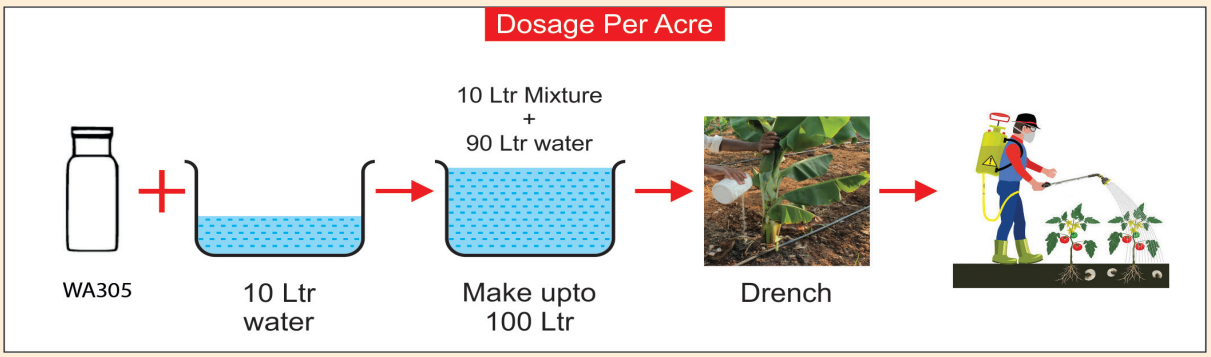
Shelf-life : 12 months from the date of packing

Available Packing : WA305-1X2ml

Non-Sprayed

Sprayed

Mealybug Infestation



Organic Fertilizer (nRiCHdearth Series)

Product Code : WA301

Product Name	Organic Manure (Soil Organic Supplement - SOS)

Application : Organic Manure

Description :

1. Rich source of organic matter.
2. Improves the texture, water retention capacity, nutrient availability of the soil
3. Repairs soils which have been damaged by improper management & aids in maintaining the soil quality for plant life.
4. Aids in balancing the cation exchange capacity [soil's ability to hold and release various elements and compounds that plants need for nutrition is through a process called Cation Exchange Capacity (CEC)] within the different types of soil.
5. Helps to improve the amount of minerals in the soil.
6. Easily bio-degradable, sustainable and does not cause environmental pollution.

Recommended Dosage : 5KG / Acre

Shelf-life :

24 months from the date of packing

Available Packing : 1KG, 5KG

Non- treated **Treated**

Onion

Non- treated **Treated**

Rice

Control **Test**

Wheat

Dosage Per Acre

Product Code : WA317

Product Name Insect Shield Kit

Application : Prevention and Control of Insect Borne Infections in Agriculture

Kit Contents :

WA310	SuperVinashak	It helps in preventing and controlling vari ous types of insect infestations inagricul tural crops
WA311	SuperGhatak	It helps in preventing and controlling vari ous types of insect infestations inagricul tural crops
WA306	SuperStiker	It is asilicon based non-ionic agricultural wetting agent which enhances the efficacy of the above mentioned products when used in combination during spraying

Significance :

1. Kit helps in preventing and controlling various types of insect pests from agricultural crops.
2. WA310 and WA311 are bioinsecticides that prevent various pathogenic insect borne infections in agricultural crops.
3. WA306 SuperStiker helps in increasing he sticking ability of the above mentioned products, when used in combination.
4. Example of insect pests includes *Helicoverpa* spp., *Spodoptera* spp., Hairy caterpillars, white grubs, mealy bugs/scales etc.
5. Aids in IPM programme and thereby helps to reduce the pesticide load.

Target Crops :

Potato, Sugarcane, Groundnut, Rice, Cotton, Cereals, Fruits.

Recommended Dosage : 1Kt x 2ml/Acre

Recommended Applications : Folior Application

Shelf-life :

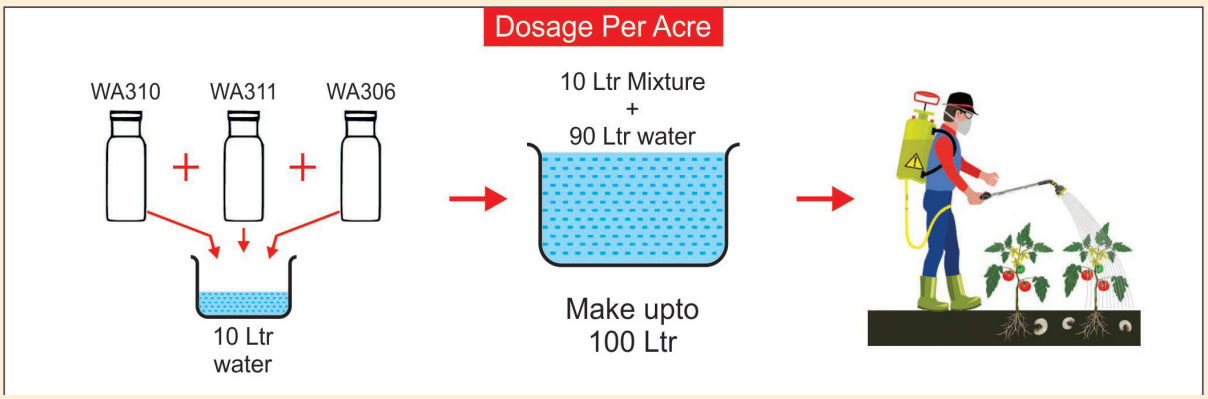
12 months from the date of packing

Available Packing : WA317-1KT x 2ML

WA317 : Insect Shield Kit

Non-Sprayed

Sprayed



Integrated Pest Management

Product Code : WA319

Product Name	Gluee Pad (Yellow & Blue Sticky Pads)

Requirement : 25 Nos. of Gluee pads per acre

Available Packing :

WA319-25NO X 1PK (Contains 25 sheets)

WA319-25NO X 60PK (Contains 1500 sheets)

Product Code : WA323

Product Name	Catch Bug Roll (Yellow & Blue Roll)

Requirement : 5 - 6 nos of Catch Bug rolls recommended /Acre

Available Packing : WA323-1NOX1PK

WA323-25NOX1PK (Contains 25 rolls)

Significance :

1. For monitoring and controlling pest population such as Whiteflies, Winged aphids, Jassids, Thrips, Fruit flies, Leaf hoppers, Moths, Leaf miners, Flea, Beetles etc.
2. The glue does not dry out and the pads will last until the surface area is completely covered with insects, even through rain.
3. Highly attractive towards target pests.
4. Can be used in green houses, agricultural farms, orchards, gardens & nurseries.
5. Easy to install / unroll in the field.
6. Environmental friendly, tear proof.

WA323 : Yellow Catch Bug (Roll)

WA324 : Blue Catch Bug (Roll)

Application :

For monitoring and controlling pest population

Shelf-life : 36 months from the date of packing

WA319 Gluee pad under field condition

WA320 Gluee pad under field condition

Insect flies attracted to Gluee pad

Complete Solution to Chemical Free Farming

Make in India

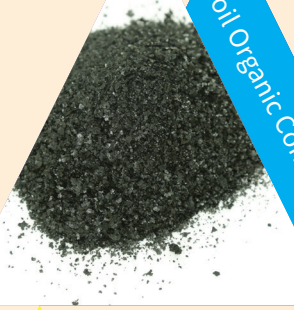
Warkem®
Building Blocks For Healthy Humanity

Ensuring

- ✓ Better Growth & Development of Crops
- ✓ High Quality Yield

Organic Foliar Spray

Soil Organic Conditioner



Wetting Agent

Biofertilizer

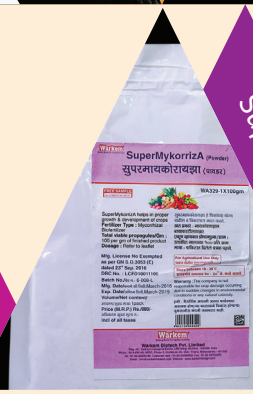
Biopesticide

Kits for Agriculture

Soil / Plant Tissue Testing Kits

Integrated Pest Management

SuperMycorrhiza



SOS

Manufacturing and Production Facilities

BUILDING BLOCKS FOR A HEALTHY HUMANITY
Warkem

TL629_ 00/War Lit/Iran_Eng / 12/18

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