Jaivika Trichoderma viride

Jaivika is a entomopathogenic fungus which acts as a biofungicide. It is a unique formulation contains dormant spores of *Trichoderma viride* with a inert carrier. *Trichoderma spp.* is fungi that are present in substantial numbers in nearly all agricultural soils and in other environments such as decaying wood. Among their other activities, they grow tropically toward hyphae of other fungi, coil about them in a lectin-mediated reaction, and degrade cell walls of the target fungi. This process (mycoparastitism) limits growth and activity of plant pathogenic fungi. Mycoparasites produce cell wall-degrading enzymes, which allow them to bore holes into other fungi and extract nutrients for their own growth.

Composition

composition		
1)Powder fo	rmulat	tion - Trichoderma vir <mark>ide</mark>
Trichoderma vir	ide	: 1.0% % w/w
(Spores & Nutrient Medium residues)		
Spore Count : 2	$ imes 10^8$ r	min. C.F.U per gm.
Carrier (talc)		: 90.85% w/w
Moisture (Max.)		: 8.00% w/w
Total		: 100% w/w
2)Liquid Formulation <i>Trichoderma viri<mark>de</mark> 1</i> 0% AS		
Trichoderma vir	ide	: 10 % (V/V)
(spores & nutrient medium residue)		
CFU :	1	more than 2×10^8
Carrier (water)		: QS to make 100%

Product Mode of Action

Upon each application, the dormant spore of *Trichoderma viride* gets active and during its growth, its adopt various mechanisms to control harmful fungus like

- Mycoparasitisum – direct attack on harmful fungus by coiling of hyphe etc. Trichoderma fungus is a preventive biological (living) fungicide that attacks disease-causing pathogen before they reach the root system. It grows fast and coils around the pathogen and penetrates through it and takes nutrients from the pathogen. The pathogen eventually dies and finally eliminated from the field.

- Antibiosis- destroy harmful fungus by releasing various enzymes like pectinase and citinase

- Competition- fast growth of *Trichoderma viride* lead competition for air, space, water, food etc with harmful fungus.

Crops

Pomegranate, cotton, Cauliflower, Ginger, Onion, Eggplant, Potato, Chilli, Tomatoes, Cucumbers, Cut and Pot flowers, Orchards, Vineyards Ornamentals in greenhouses, lawns and nurseries etc.

Diseases control:

Jaivika controls various disease like, Root rot, Die back, Fusarium wilt, Collar rot, Pod blight, Red rot, Stem rot, Seedling blight, Soft rot, Clump rot, Dry rot, Panama wilt, Bean rot, Late blight, Fruit rot, Black leg, Damping off, Abnormal leaf fall, Black threat, Canker and Pod rot.

Microbes control:

Controls the disease-causing pathogens such as Pythium spp., Rhizoctonia solani Fusarium spp., Botrytis cinerea, Sclerotium rolfsii, and Sclerotinia homoeocarpa causing root rot, root wilt, seedling rot and color-rot diseases in crops.

Frequency of application

Two to three applications in vegetables ornamentals and 4-5 applications in lawns and landscape crops are recommended. Applications during early stages of plant growth protect the plant during critical stages of development.

Product benefits:

- Able to control more than 100 species of fungus by excreting various mechanisms like antibiosis, mycoparasitisum and competition

- Saprophytic growth lead to serve on dead organic matter so even in absent of host, inoculums get increase in field so more chances for controlling harm full microbes as they start attack

- it help to increases the crop yield by reducing damage cause by harmfull microbes

- help to increases natural soil biomass so by these help to improve soil health
- improve plant vigor, plant health etc.
- help to maintain natural ecosystem in field

Direction for use:

Seed Treatment :

Mix 10 ml of Jaivika 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 Jaivika 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 Jaivika 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 4 kg or 2 lit of Jaivika 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 for an acre.

Drip application:

For an acre add 2 lit Jaivika 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.
- Powder form- 1 kg

Self life – Liquid / Powder- 1 year

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