



AGRIVA HOLLAND B.V.

VAN NOORD BIOFUN

**MADE IN
HOLLAND**



VAN NOORD BIOFUN consisting of mixer Biocontrol agents such as *Pseudomonas fluorescens*, *Trichoderma viride*, *Trichoderma harzianum*, *Bacillus subtilis*, *Paecilomyces lilacinus*. Combination these biocontrol agents would control most of soil borne bacterial, fungal and nematode pathogens.

Pseudomonas fluorescens

Pseudomonas fluorescens as non-pathogenic saprophytes that colonize soil, water and plant surface environments. *Pseudomonas fluorescens* suppress plant diseases by production of number of secondary metabolites including antibiotics, siderophores and hydrogen cyanide. This microbe has the unique ability to enter the plant vascular system, reach the various parts of the plant system and act as a systemic bio-control agent against various fungal and bacterial diseases.



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Bacillus subtilis

Bacillus subtilis is a spore forming omnipotent bacteria which, when applied to the seeds or growing plants, it colonizes on the developing root system of the plants. *Bacillus subtilis* can able to multiply even in poor soil organic content and compete with and thereby suppress the growth of various pathogenic fungal organisms such as *Rhizoctonia* spp., *Fusarium* spp., *Aspergillus* spp., and others. *Bacillus subtilis* continue to live on the root system and provide protection throughout the growing season.

Trichoderma viride / harzianum

Trichoderma spp. is an omnipotent fungus, present in most of agricultural soils where organic matter is rich. *Trichoderma* spp. grows tropically toward hyphae of other pathogenic fungi, coil about them in a lectin-mediated reaction, and degrade cell walls and kill the pathogenic fungi by secreting of extracellular enzymes viz. Chitinase and Peptaibols. This process (mycoparasitism) limits growth and activity of plant pathogenic fungi.

Paecilomyces lilacinus

Paecilomyces lilacinus is a naturally occurring fungus found in many kinds of agricultural soils. *Paecilomyces lilacinus* is widely used to control various plant pathogenic nematodes viz. Root knot nematodes, Burrowing nematodes, Cyst nematodes, Root lesion nematodes, Reniform Nematodes and False Root knot Nematodes. The secondary metabolites secreted by the *Paecilomyces lilacinus* would infect and destroy the plant pathogenic nematodes in various stages of its growth such as eggs, juveniles, and adult females

Recommended Dosage

Soil application: 1 litre /acre

Seed treatment: @ 10 ml per kg of seeds as per standard wet treatment.

Seedling treatment: @ 10 ml/litre of water prior to planting.

Product composition

Live Culture : 1×10^{11} CFU/ml

Carrier material : Liquid base (100% water soluble)

