

Shakti Bacillus

Introduction :

Shakti Bacillus is a biological fungicide based on a selected strain of naturally-occurring antagonistic bacteria *Bacillus subtilis* (NCIM 2063) Shakti Bacillus contains endospores of *Bacillus subtilis*. It works as both a fungicide and a plant growth promoting rhizosphere bacteria (PGPR). It is formulated as Wettable Powder with CFU count of 1×10^8 / g. We also offer a count of 1×10^9 CFU/g. Shakti Bacillus is approved for use in Organic agriculture.

Mode of Action :

Substrate Competition for space and Nutrients : Shakti Bacillus colonizes maximum space and absorbs maximum nutrients available at the target site and thereby controls the pathogens by starving them for food and competing for space- Domino effect.

Mycoparasitism :

Shakti Bacillus is a biological fungicide that attacks disease causing pathogens before they reach the plant system. It derives nutrition from the target pathogen and Shakti Bacillus spores multiply inside it and eventually kill the pathogen.

Enzyme production :

Shakti Bacillus secretes certain antagonistic secondary metabolites which have an anti fungal effect that pathogenise and kill the disease causing organism.

Method of Application :

1. **Seed Treatment :** Mix 10-15 g of Shakti Bacillus in sufficient quantity of water to make slurry and coat the seeds with this slurry. Dry the seeds under shade and sow the seeds. The seeds can be mechanically mixed in a seed treater also.
2. **Soil Application :** Mix 5 Kg / Ha of Shakti Bacillus with 500 Kg of organic manure/fertilizer. Incorporate this mixture at the time of sowing/planting.
3. **Foliar Spray :** Mix 10g of Shakti Bacillus per 1 L of water and spray. Spraying depends on the climatic conditions that favour disease occurrence and must be done prior to the onset of the disease. Spray at an interval of 7 to 10 days depending upon the crop and intensity of disease. Adding a sticking agent to the solution will aid in better adherence of the formulation to the crops and offers better disease control.

Target Diseases :

Shakti Bacillus controls disease causing pathogenic species like *Pythium*, *Alternaria*, *Xanthomonas*, *Rhizoctonia*, *Botrytis*, *Oidiopsis*, *Alternaria*, *Leveillula*, *Phakopsora*, *Sclerotium*, *Phytophthora*, *Peronospora*, *Sclerotinia* which cause diseases such as root rot, root wilt, seedling rot, early blight, late blight, leaf spot, stem rot and mildew diseases in crops.

Crops Shakti Bacillus is suitable for application on Tomato , Chilly , Vegetables , Cereals , Millets , Pulses, Oilseeds, Fibre Crops , Sugar Crops , Forage Crops , Plantation crops, Fruits, Spices , Flowers , Medicinal crops , Aromatic Crops , Orchards and Ornamentals.

Shelf Life of Shakti Bacillus is stable for a period of 12 months from the date of manufacturing.