

SeedGuard
Microbial Complex for Seed Coating

Introducing SeedGuard

SeedGuard is a biological microbial concentrate developed for coating seeds. It comprises of BioFertilizer and BioPesticide cultures and Plant growth promoting Rhizosphere bacteria

SeedGuard is used as seed coating to encourage germination and growth of seedlings and for control of seed borne fungal diseases.

Pathogenic fungal spores or bacteria can infect seeds while they are still developing on the plant and even after the harvest. These pathogens cause diseases in the next crop (seed-borne diseases). They in turn cause diseases to consumers of these crop products. Hence antagonistic fungi or bacteria are used in SeedGuard™ to protect seeds.

Mode of Action

Root colonization: As the root system develops, the microbes grow with the roots extending the protection throughout the growing season. As a result of this biological protection, a vigorous root system is established by the plant, which often results in more uniform stands and greater yields.

Symbiotic action: The beneficial microbes in SeedGuard penetrate and colonize the plant roots and send out filaments into the surrounding soil. These filaments form a bridge that connects the plant roots with large areas of soil (up to 200 times larger than the root zone) and act as a "pipeline" to funnel nutrients to the plant. In return, the plant discharges compounds, through its roots, to stimulate fungal growth. The efficacy of the fungi is also enhanced by soil microbes such as *Bacillus spp.* These beneficial microbes improves the root colonization and function by producing Enzymes, hormones, vitamins, and other Factors that promote the health and the performance of the crops .

Method of Application

Seed Coating: Mix 100 g of SeedGuard in sufficient water to make a slurry and coat seeds required per Ha with this slurry.

Mix 10 g of SeedGuard per Kg of Seed for treating seeds of cereals, pulses, oilseeds.

Seedling treatment: Mix 100 g of SeedGuard with sufficient water to make a solution and dip seedlings required per Ha.

Note:

Do not store treated seeds more than a week

Target Diseases

SeedGuard controls most of seed borne diseases

Crops

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

Compatibility

SeedGuard is compatible with BioPesticides and not with Chemical Fungicides.

Shelf Life

SeedGuard is stable for a period of 12 months from the date of manufacturing.

Mass Composition

CONSTITUENT	W/W %	FUNCTION
<i>Microbial consortia</i> (Spores, mycelia and vegetative cells)	2.00%	Active
Moisture	8.00% max	Inactive
Carrier Powder - Dextrose	90.0%	Inactive

Free from Salmonella, Shigella , E.Coli

Cautions for handling and use of product

1. Avoid inhalation and skin contact while diluting as there could be spillage / splashes of the product.
2. Mixing equipment is to be thoroughly rinsed with water and detergent before using the same equipment for other chemical agricultural inputs.

3. Surplus slurry/solution should not be disposed in stagnant water / flowing water where there is a possibility of causing pollution to natural resources
4. Do not eat / drink / smoke during application.
5. Direct incidence of SeedGuard™ may cause irritation and therefore it is recommended that the operator should use protective gear viz gloves, apron, mask, eye gear and hood.

Symptoms and Antidotes

Symptoms: Occasional symptoms include head ache and nausea.

Antidote: In the case of ingestion: symptomatic treatment is advised. In the case of contact with Eyes: Flush with water liberally for 20 minutes. In case of Skin contact, wash the affected area with plenty of water and soap.

Citations

There are no public citations of SeedGuard™ as it is a proprietary product

Commitment to Nature

- SeedGuard is safe to natural parasites, pollinators and predators.
- SeedGuard can be used as an effective component in IPM programmes, thereby leading to a reduction in use of chemical seed treatment agents and creating a safer environment.

Benefits from SeedGuard

- SeedGuard does not lead to residue problems and doesn't cause resistance or resurgence problems.
- Promotes atmospheric Nitrogen fixation
- Solubilizes fixed Phosphorous in soil
- Imparts resistance to damage by pathogenic fungi
- Solubilizes Silica and makes it available to plants
- Achieves a more consistent plant stand
- Improves root development and quick emergence of crop stand
- Increases quantity and quality of the yields.
- Increases stress tolerance.
- Improved plant health is observed throughout the life cycle of the crop.
- Promotes early root growth and larger roots.