Metarhizium Anisopliae
5x 10^9 cfu/g Metarhizium Anisopliae powder

Introduction
Metarhizium anisopliae, also known as green muscardine fungi, is beneficial fungus having the ability to kill a broad spectrum of insecticides including sucking insects, beetles, and caterpillars, it is one of most successful and long lasting biological control programs. Spores of Metarhizium attached to insect cuticle and kills them by penetrating and consuming it. Metarhizium anisopliae spores are able to survive in soil, organic matter and debris of dead infected insects and can infect another insect by secondary infection.

Specification
Bacteria count: 1 x 10^9 cfu/g , 8 x 10^9 cfu/g
Fineness: 80-200 mesh screen
Moisture: 8%
1kg per foil bag or 25 kg or bag or as per customers request

Application
Agriculture, pest management, biological insecticide.
**Target Pest**

- Ticks
- Root weevils
- Flies
- Gnats
- Thrips
- Locusts
- Grasshoppers
- Cockchafers
- Spittlebugs
- Grubs
- Borers
- Beet armyworm

**Principle**

First, asexual conidia (singular=conidium) come into contact with the arthropod integument as the arthropod travels through the environment. The conidia stick to the arthropod’s exoskeleton, germinate and grow a germ tube, which eventually ends in an appressorium, the flattened and thickened tip of a germ tube. A penetration peg grows under the appressorium, pierces the integument and enters the hemocoel. The penetration of the fungus is achieved by the production of a cocktail of hydrolytic enzymes including proteases, lipases, chitinases, and mechanical pressure.

Second, single cells of the fungus, blastospores, bud off of the penetration structure, circulate in the insect hemocoel and multiply, thereby depleting host nutrients. Metarhizium species are also known to produce compounds that are toxic to arthropods and presumably aid in killing the host, suppressing host immune defenses and fending off potential microbial competitors.

Finally, after the host dies due to mycosis, the fungus will penetrate out of the integument and grow conidiophores, on which environmentally stable aerial conidia are produced. These conidia are passively disseminated into the environment and eventually infect new hosts.

When host insects are first sensed by metarhizium anisopliae, yellow-brown spots can be seen on the body wall. Due to the action of metarhizium toxin, insects begin to show neurological disorders. Larvae stop feeding, their response to stimuli decreases, and they eventually die. After death, the corpse became rigid, and the hyphae inside the worm began to extend to the outside. The body was soon covered with a layer of white hyphae. Then one or two days later, conidial stalks and conidia formed on the hypha. It turns green or dark green.

**Benefit**

- Broad-spectrum pest control
- Ecofriendly and certified organic products
- Microbial fungicide, non-drug resistance
- Helps the plant to attain better health and yield
- Useful for soil insects as well as foliage feeding insects
- It spores stay on insect debris, organic matter and soil particles and provide prolonged protection.
Dosage & Method

- Foliar application: Dissolve 2-3 gram metarhizium anisopliae per liter of water, apply on both sides of the leaves.
- Soil drenching: Dissolve 2-3 gram in one litre of water and drench to the base of each plant.
- Soil application: Mix 2 kg metarhizium anisopliae with 20Kgs of dried and powdered farm yard manure and apply to one acre of main field just before transplanting.

Caution

- Keep Metarhizium anisopliae products away from the silkworm area.
- After the solution is well prepared, it should be used up within 2 hours to avoid premature germination and loss of infectivity.
- Excessive contact with the human body may cause allergic reactions, low-grade fever, itchy skin, etc., and pay attention to skin protection during application.
- The metarhizium anisopliae products should be applied in cloudy days, or in the evening to avoid direct sunlight. Keeping the field environment wet is also essential.

Packing and shelf life

2 year shelf life, 1kg per foil bag or 25 kg per bag

Storage

Store in cool, dry location, keep out of direct sunshine and moisture. Once opened, should be use it within 30 days to prevent activation. Keep out of reach of children.