

## Beveria WP

1x 10<sup>10</sup> cfu/g beauveria bassiana powder

### Introduction

Beveria WP is an entomopathogenic fungus containing the beauveria bassiana that controls insects include whiteflies, thrips, aphids, psyllids, mealybugs, beetles, plant bugs and weevils. B. bassiana spores simply need to come in contact with a host. Once the host insect is infected, the fungus rapidly grows inside of the insect, feeding on the nutrients present in the host's body and producing toxins in the process. When the host dies, the B. bassiana covers the carcass in a layer of white mold that produces more infective spores. It can controls multiple life stages of a wide variety of soft-bodied insects in greenhouse, field and nursery crops.



### Composition

Bacteria count : 1 x 10<sup>10</sup> cfu/g

Formulation: wettable powder

Fineness: 200 mesh screen

Moisture: 6%

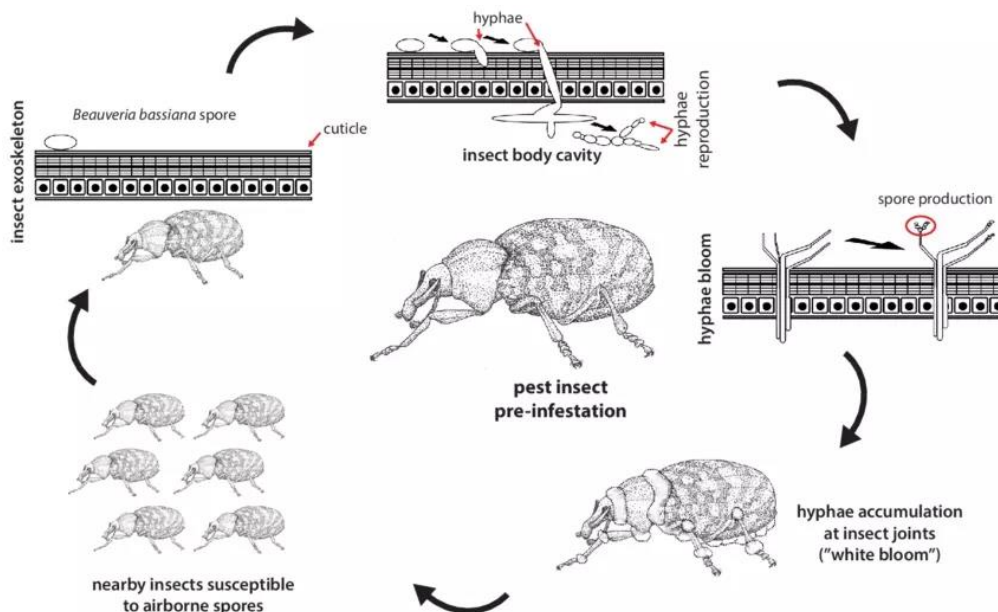
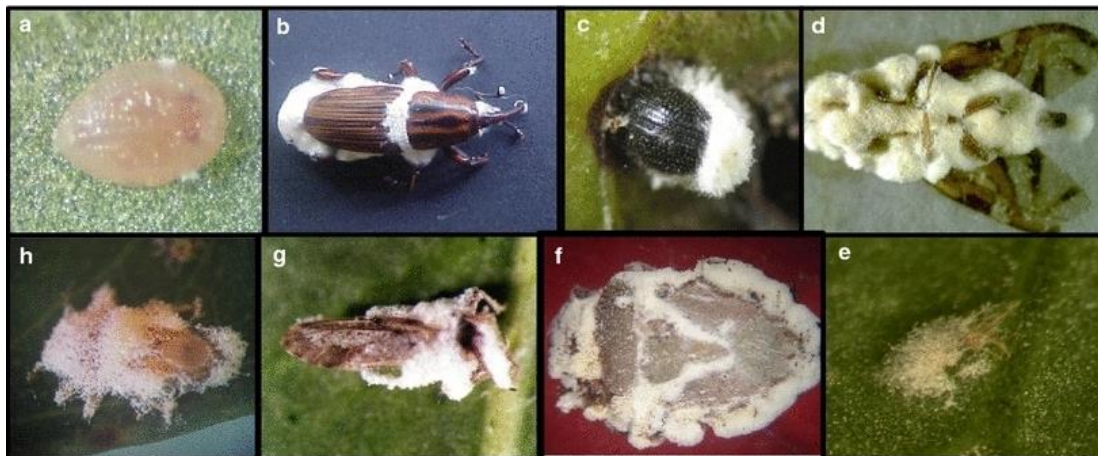
1 kg per bag or as per customers request

## Target pest

- Whitefly
- Psyllids
- Aphids
- Mealy bugs
- Thrips
- Lepidoptera
- Spider Mites
- Beetles

## Insecticidal Mechanism

Beauveria Bassiana acts by contact, adhesion of the spores to the host insect takes 0–6 hours. On contact with the insect, the spores germinate within 6–12 hours. The spore of this fungus when comes in contact with the cuticle (skin) of the target insect pest they germinate and grow directly through the cuticle to the inner body of the host. The fungus by taking nutrients from the insect proliferates and colonizes the entire insect and thus drains the insect of nutrients and the infected insects eventually die within 24–48 hours..



## Benefit

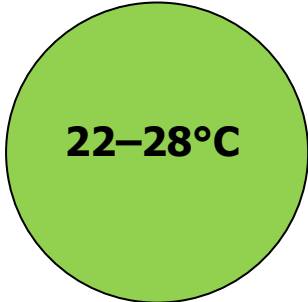
- ✓ Complementary suppression of a range of common pests.
- ✓ Effective against all life stages, with best performance at low numbers
- ✓ Increased application flexibility, especially around harvest
- ✓ Innovation resistance management option to ease pressure on conventional insecticides
- ✓ Complementary with the release of beneficial species
- ✓ Simpler compliance with evolving consumer expectations and regulatory standards

## Dosage & Method

- ✓ Apply 2-3 gram per liter water, Use 500–2500 L/ha water to ensure complete spray coverage, but NOT past the point of run-off.
- ✓ Apply at the first appearance of the insect pest.
- ✓ Repeat applications at an interval sufficient to maintain control, usually 3-10 days depending upon plant growth rate, insect activity, and other factors.
- ✓ If attempting to control an insect population with a single application, make the treatment when eggs start hatching, but before economic damage occurs.

## Success factors

- ✓ Apply in the early stages of population development
- ✓ As it is a contact bioinsecticide, *beauveria bassiana* product efficacy is impacted by coverage
- ✓ High water rates, use 500-2500L/ha water to ensure complete spray coverage, but NOT past the point of run-off.
- ✓ Application frequency will depend on:
  - The environment (such as whether plants are protected or outdoors)
  - The manner in which *beauveria bassiana* is applied (foliar or drench)
  - The target insects' population and economic thresholds
- ✓ It is recommended to begin applying *beauveria bassiana* at early stages of population development.
- ✓ Higher insect populations may require the use of chemical insecticides for knockdown and shorter application intervals of *beauveria bassiana* to 3-5 days to achieve acceptable control

**22–28°C**

Temperatures below 16°C and above 32°C will influence spore mortality

**>60%  
humidity**

>60% humidity is required at the time of application and for a few hours afterwards

**Apply late  
afternoon**

B.B is sensitive to high levels of UV, so avoid application in the middle of the day

## Application time

**Mid-season:** apply Beveria WP in 3-spray blocks with conventional insecticides to suppress **pest population recovery after knockdown**

**Late season:** apply Beveria WP in 3-spray blocks to **suppress pest activity during harvest**

## Tank Mixing

Pre-mixing *Beauveria bassiana* properly is one of the most important steps. *Beauveria bassiana* spores are hydrophobic and can therefore be difficult to mix with water. It is important to pre-mix **using the correct technique** (and the right container – see below)! This step makes all the difference. An improper pre-mix will leave excess residue on the leaves and fruits and uneven concentrations of conidia in your solution.

### Use the right container

It is **very important** to pre-mix in a **hermetically sealed container**, like a mason jar, blender or industrial paint mixer.

### IMPORTANT

Never mix with hot water!

Never pre-mix in a pail or bucket using a stick or whisk.

*This will add too much air to the water and the solution will not mix properly.*

Once you have weighed your dose (2 to 3 g/L):

- Transfer into a hermetically sealed container
- Add cold or room-temperature water (2 L of water for a 100 L tank)
- Mix well for 30 to 45 seconds
- Pour your pre-mix into the spray tank

- Rinse the premix container with water three times and add the rinse water to the spray tank
- Prepare a fresh batch for each application

### **Apply the mixture as soon as possible**

Apply your *Beauveria bassiana* solution as soon as possible. Exposure to direct light or heat for an extended period can kill the spores before you have a chance to apply them. Do not keep the solution to apply the next day.

### **Caution**

Do not mix use with bleach, caustics, disinfectants or other chemicals

### **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.