



BotaniGard®

Mycoinsecticide

BotaniGard® Mycoinsecticide is an effective biological insecticide that is used to control whitefly, thrips and aphids. Based on the highly successful fungus, *Beauveria bassiana*, strain GHA, it controls the most troublesome crop pests – even resistant strains. BotaniGard can be used as a stand alone or in rotation with other insecticides. With a large and diverse crop list it has an excellent safety profile. BotaniGard is cost-effective because it controls the early stages of insects, preventing population flare-ups and the required rescue treatments to get things back under control.

Because of BotaniGard's superior formulation, higher spore concentration, high viability and proven performance, it performs effectively when used on many greenhouse vegetable and ornamental crops. These same characteristics also result in control which can equal or exceed that of chemical insecticides.

BotaniGard's mode of action is unlike any conventional insecticide. The applied spores infect directly through the outside of the insect's cuticle (the skin). A spore adhering to the host will germinate and produce enzymes that attack and dissolve the cuticle, allowing it to penetrate the skin and grow into the insect's body. As the insect dies, it will change colour to pink or brown, and eventually the entire body cavity is filled with fungal mass. The most common visible indication of insect death is a discoloration of the larvae or pupae. It is not necessary for a white fungal growth to occur to know the product is working; the insect is killed before this happens.



Untreated whitefly nymphs



BotaniGard - treated whitefly nymphs



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Key Features

- **BotaniGard®** controls a wide variety of soft-bodied insects in greenhouses such as whiteflies, thrips and aphids.
- BotaniGard has excellent plant safety on a broad range of crops. It is registered for use on ornamental and vegetables in greenhouse applications.
- Resistance has never been reported for BotaniGard due to its unique, non-site specific mode of action. It is excellent for control of resistant populations such as Q-biotype whitefly. BotaniGard can extend the useful life of chemical insecticides.
- The active ingredient, a living fungal spore, *Beauveria bassiana* strain GHA, is exempt from residue tolerance, has a zero day pre-harvest interval and can be applied up to the day of harvest.
- A short 4-hour REI.
- No limit to the number of times that BotaniGard can be applied in a season.
- Contains the highest viable spore counts available in a *Beauveria* – containing insecticide.
- A weekly application program can prevent insect population explosions and provide a level of control equal to or better than conventional chemical programs.
- Reduced risks to workers and the environment.



BotaniGard is Available in Two Formulations:

Formulation	Pest	Rate
BotaniGard® ES Liquid emulsifiable suspension	Whiteflies, aphids Thrips	0.5 - 1L per 400 Litres spray volume 2L per 400 Litres spray volume
BotaniGard® 22WP Wettable powder	Whiteflies, aphids Thrips	250 - 500g per 400 Litres spray solution 500g - 1kg per 400 Litres spray volume

Rate depends on insect population and foliage density

Application Considerations:

- Early scouting and detection followed by application of BotaniGard when insect numbers are low result in most effective control. Apply at first appearance of insect pests.
- Use a program of BotaniGard applied at 7-day intervals to keep your crop clean and prevent insect population explosions. If applied late or insects get out of hand, reduce the interval to 3 -5 days and use a quick knockdown insecticide which will help you to regain control.
- BotaniGard is a contact insecticide and thorough coverage is required to achieve control
- Shake the container vigorously and thoroughly to suspend spores
- Insects are killed long before the appearance of fuzzy spore production. The presence of “fuzzy” insect bodies is not required to show product effectiveness.

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