



Botanigard WP MAPP 17054

A wettable powder containing 220 g/kg Beauveria bassiana GHA present as 4.4×10^{10} CFU/g MPCA (minimum 3.7×10^{10} CFU/g MPCA; maximum of 5.2×10^{10} CFU/g MPCA) for the control of whitefly on various plants.

Contents: 500 gram e

Batch No.: Date of Manufacture: - See container

THE (COSHH) CONTROL OF SUBSTANCES HAZARDOUS TO HEALTH REGULATIONS MAY APPLY TO THE USE OF THIS PRODUCT AT WORK.

SAFETY PRECAUTIONS

Operator protection

Engineering control of operator exposure must be used where reasonably practicable in addition to the following personal protective equipment:

WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS), SUITABLE PROTECTIVE GLOVES AND SUITABLE RESPIRATORY PROTECTIVE EQUIPMENT* when handling the product or applying the product. *Disposable filtering facepiece respirator to at least EN149 FFP3 or equivalent.

However, engineering controls may replace personal protective equipment if a COSHH assessment shows they provide an equal or higher standard of protection.

Environmental protection

Do not contaminate water with the product or its container. Do not clean application equipment near surface water. Avoid contamination via drains from farmyards and roads.

IMPORTANT INFORMATION

FOR USE ONLY AS A PROFESSIONAL HORTICULTURAL INSECTICIDE

Crops	Maximum individual dose (Kg/Ha)	Maximum number of treatments	Maximum total dose	Latest time of application
Protected Aubergines, Courgettes & Squash, Cucumbers and Melons, Sweet Peppers and Chillies, Tomatoes and Roses	0.94	5 per crop (See OSR)	-	-
Protected Strawberries and Ornamentals (excluding Roses)	0.75	5 per crop (See OSR)	-	-
Protected Nursery Fruit Trees	0.63	5 per crop (See OSR)	-	-

Other Specific Restrictions

- 1)The maximum number of applications must not exceed 25 per year per glasshouse structure.
- 2)Treatment must only be made under 'permanent protection' situations which provide full enclosure (including continuous top and side barriers down to below ground level) and which are present and maintained over a number of years.
- 3)Reasonable precautions must be taken to prevent access of birds, wild mammals and honey bees to treated crops.
- 4)To minimise airborne environmental exposure, vents, doors and other openings must be closed during and after application until the applied product has fully settled.

READ THE LABEL BEFORE USE. USING THIS PRODUCT IN A MANNER THAT IS INCONSISTENT WITH THE LABEL MAY BE AN OFFENCE. FOLLOW THE CODE OF PRACTICE FOR USING PLANT PROTECTION PRODUCTS

****Below important information box to appear on bottle label due to space restrictions****

IMPORTANT INFORMATION

FOR USE ONLY AS A PROFESSIONAL HORTICULTURAL INSECTICIDE

Crops: **Protected Only.** Strawberries, Aubergines, Courgettes & Squash, Cucumbers and Melons, Sweet Peppers and Chillies, Tomatoes, Ornamental Plant Production and Nursery Fruit Trees

Maximum individual dose: }
Maximum number of treatments: }
Maximum total dose: } Full details are on attached leaflet
Latest time of application: }
Other specific restrictions: }

READ THE LABEL BEFORE USE. USING THIS PRODUCT IN A MANNER THAT IS INCONSISTENT WITH THE LABEL MAY BE AN OFFENCE. FOLLOW THE CODE OF PRACTICE FOR USING PLANT PROTECTION PRODUCTS

Botanigard WP

A wettable powder containing 4.4×10^{10} CFU/g of *Beauveria bassiana* GHA



DANGER
MAY CAUSE AN ALLERGIC SKIN REACTION
MAY CAUSE ALLERGY OR ASTHMA SYMPTOMS OR BREATHING DIFFICULTIES IF INHALED

Use only outdoors or in a well-ventilated area.
IF ON SKIN: Wash with plenty of water.
Immediately call a POISON CENTER/doctor.
Wash contaminated clothing before reuse.
Contains *Beauveria bassiana* strain GHA TGAI (63428-82-0). May produce an allergic reaction.

To avoid risks to human health and the environment, comply with the instructions for use

MAPP 17054



This label is compliant with the CPA Voluntary Initiative Guidance

Marketed by:

CERTIS

Certis, Suite 5, 3 Riverside, Granta Park, Great Abington, Cambridgeshire, CB21 6AD

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Authorisation Holder: Mycotech Europe Ltd, c/o Certis Europe, Suite 5, 3 Riverside, Granta Park, Great Abington, Cambs, CB21 6AD

For technical and non-emergency calls - phone 0044 (0)1223 894261

For advice on medical emergencies, fires, spillages or chemical hazards ONLY – phone 0870 190 6777

Botanigard® is a registered trademark of LAM INTERNATIONAL CORP.

DIRECTIONS FOR USE

IMPORTANT: This information is approved as part of the Product Label. All instructions within this section must be read carefully in order to obtain safe and successful use of this product.

GENERAL INFORMATION

Botanigard WP is a microbiological insecticide based on the entomopathogenic fungus *Beauveria bassiana*. The product is formulated as a wettable powder and contains 4.4×10^{10} CFU/g MPCP (minimum 3.7×10^{10} CFU/g, with a maximum of 5.2×10^{10} CFU/g) (CFU = Colony forming units)

Botanigard WP will contribute to glasshouse whitefly control as part of an IPM programme.

Please note Botanigard WP may be harmful to natural enemies. Consult your supplier of natural enemies on the use of Botanigard WP in combination with the use of natural enemies.

Botanigard WP may have adverse effects on bumble bees. Please seek further advice on the use of this product with pollinators.

MODE OF ACTION

Beauveria bassiana is a fungus found naturally in soils and occurs as a disease, white muscadine in insects. When spores of this fungus come in contact with the

cuticle of susceptible insects, they germinate and grow directly through the cuticle to the inner body of their host. Here the fungus proliferates throughout the insect's body, producing toxins and draining the insect of nutrients, eventually killing it.

APPLICATION

Crop Specific Information

Application	Target*	Max concentration (g/100L)	Max water volume (L/Ha)	Maximum individual dose (kg product per Ha)	Maximum number of applications per crop	Minimum interval between applications (in days)
Strawberry	Whitefly	62.5	1200	0.75	5	5
Courgette	Whitefly	62.5	1500	0.94	5	5
Cucumber	Whitefly	62.5	1500	0.94	5	5
Melon	Whitefly	62.5	1500	0.94	5	5
Aubergine	Whitefly	62.5	1500	0.94	5	5
Tomato	Whitefly	62.5	1500	0.94	5	5
Sweet peppers	Whitefly	62.5	1500	0.94	5	5
Ornamentals (except roses)	Whitefly	62.5	1200	0.75	5	5
Roses	Whitefly	62.5	1500	0.94	5	5
Nursery fruit trees	Whitefly	62.5	1000	0.63	5	5

*Glasshouse whitefly *Trialeurodes vaporariorum*

** Maximum of 25 per glasshouse structure per 12 months

Application timing

For glasshouse pests, it is important that Botanigard WP is applied as soon as the insect pests are detected. Applications every 5-7 days are recommended. The rate at which *Beauveria* spores kill their host is dependent on temperature and relative humidity.

Beauveria bassiana spores are inactivated by sunlight, therefore applications should be carried out in the evening.

Spraying Technique

Botanigard WP works by contact only, therefore to work effectively it is important to get good crop coverage. The foliage should be sprayed until the plants are wet thoroughly, but not to run-off.

Continuous agitation should be maintained throughout the spraying operation. Equipment that gets the material to the undersides of the leaves will result in prolonged activity, as spores are inactivated by sunlight.

Mixing

Fill sprayer with half the required volume of water (using mains water) and commence agitation. Add measured quantity of Botanigard WP and complete filling of sprayer with water to the required volume. Ensure product is thoroughly mixed before application.

STORAGE

Store in a cool dry place. Avoid storage below freezing temperatures or above 30 °C. Botanigard WP stability decreases with time at elevated temperatures above 30 °C. Tightly reclose the container of unused product. Do not contaminate unused product with water.

COMPATIBILITY

Majestik/Eradicoat Tank Mix

Botanigard can be tank mixed with a solution of Majestik or Eradicoat, enabling all stages of the whitefly life cycle to be targeted, creating a robust control programme. Contact Certis for more information.

Fungicide Compatibility

Use of certain fungicides may have a detrimental effect on the performance of Botanigard WP. Contact Certis for more information.

PHYTOXICITY

Trials show that BotaniGard WP is crop safe and phytotoxicity is not to be expected, however it has not been tested on all plant varieties. The agent can give visible residue. Damage when applied to young fruit or vegetables is not excluded. Test Botanigard WP on a small number of plants to check for potential damage before applying to a larger number of plants.

RESISTANCE

Botanigard WP has not been reported to have any insect resistance. However, it is good practice to use such products as components of Integrated Pest Management systems, alternating with other control measures. This is particularly important for sequential crops.

Material Safety Data Sheet

The material safety data sheet (MSDS) for this product is available on the Certis UK website or by calling the technical helpline number 0044 (0)845 373 0305