

**BotaniGard® ES**  
**Emulsifiable Suspension Mycoinsecticide**

**For use in controlling Whitefly, Aphids, and Thrips in Greenhouse  
Ornamentals and Vegetables**

COMMERCIAL  
READ THE LABEL BEFORE USING

GUARANTEE: *Beauveria bassiana* Strain GHA 2.2 x 10<sup>13</sup> conidia/kg

KEEP OUT OF REACH OF CHILDREN

CAUTION

REGISTRATION NUMBER 29320 PEST CONTROL PRODUCTS ACT

CAUTION-EYE IRRITANT  
POTENTIAL SENSITIZER

**Laverlam International Corporation (LVM)**

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Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

**TOXICOLOGICAL INFORMATION/NOTE TO PHYSICIAN:**

Contains petroleum distillate-vomiting may cause aspiration pneumonia. No specific antidote available. Treat the patient symptomatically.

**PRE-HARVEST INTERVAL:**

Pre-harvest interval for BotaniGard ES is zero (0) days. BotaniGard ES can be applied up to the day of harvest.

**AGRICULTURAL USE REQUIREMENTS:**

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 4 hours. Workers can enter treated areas during the REI if appropriate PPE is worn, including a long-sleeved shirt, long pants, shoes plus socks and waterproof gloves as well as a NIOSH approved respirator with any N-95, R-95 or HE filter for biological products.

**CROPS ON WHICH BOTANIGARD ES MAY BE USED:**

BotaniGard ES can be used on greenhouse ornamentals and vegetables.

**PESTS CONTROLLED:**

BotaniGard ES will effectively control whiteflies, aphids and thrips in a greenhouse environment.

**DIRECTIONS FOR USE**

**MIXING AND APPLICATION:**

**SHAKE WELL BEFORE USING.** BotaniGard ES contains emulsifiers and mixes readily in water. Mix well by external mixing, in-tank mixing, or pump circulation to form an emulsion. To mix, fill spray tank with half the desired amount of water and start agitation. Shake BotaniGard ES to suspend spores then with agitator running, slowly add the appropriate quantity of BotaniGard ES to obtain the required concentration to spray tank. Add remainder of desired amount of water. Continue agitation throughout loading and spraying. Triple rinse empty BotaniGard ES container with water and add rinse water to spray tank. For best results, continue agitation during spraying. Do not mix more BotaniGard ES than needed for that day. Do not mix BotaniGard ES the day before application. Spores will die if left overnight or longer in the spray tank.

DO NOT allow effluent or runoff from greenhouses containing this product to enter lakes, streams, ponds or other waters.

DO NOT contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.

DO NOT apply this product to fresh water habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs, and wetlands) and estuarine/marine habitats.

**CAUTION:** BotaniGard ES contains live spores. Use of this product in an integrated pest management (IPM) program must take into consideration that fungicides, some insecticide formulations, and some wetting agents and spreaders may kill the spores.

**APPLICATION FREQUENCY:**

Apply BotaniGard ES at 5-10 day intervals. High insect populations, especially whitefly and aphids, may require application at 2-5 day intervals. Repeat applications for as long as pest pressure persists. There is no limit on the number of applications or total amount of BotaniGard ES which can be applied in one season.  
DO NOT tank mix BotaniGard ES with any fungicide, insecticide or adjuvant.

**APPLICATION RATE:**

Spray to wet, but avoid runoff.

Insect	Rate
Whiteflies, Aphids	0.5-1L per 400 Liters spray volume
Thrips	2L per 400 Liters spray volume

**CAUTION:** BotaniGard ES has been observed to cause foliage damage in some variety of plants (necrotic spots on leaves in some varieties of tomatoes). To minimize the risk of foliar damage to crop, before using on a new variety of plant, test product by treating a small portion of crop and observe for injury or damage.

**STORAGE:** Do not contaminate water, food, or feed by storage or disposal. Store at room temperature (25°C) for no more than 9 months, or at 35°C for no more than 1 month. Tightly reclose the container of unused product. Do not contaminate unused product with water.

**DISPOSAL/DECONTAMINATION:**

1. Triple or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
2. Follow provincial instructions for any required additional cleaning of the container prior to its disposal.
3. Make the empty container unsuitable for further use.
4. Dispose of the container in accordance with provincial requirements.
5. For information on the disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of spill, and for clean-up of spills.

**NOTICE TO USER:**

This pest control product is to be used only in accordance with the directions on the label. It is an offense under the Pest Control Products Act to use this product in a way that is inconsistent with the directions on the label. The user assumes the risk to persons or property that arises from any such use of this product.

**GENERAL INFORMATION:**

BotaniGard ES contains live spores of the naturally occurring fungus, *Beauveria bassiana* Strain GHA. BotaniGard ES is an emulsifiable suspension mycoinsecticide formulated to control whiteflies, aphids and thrips in greenhouse ornamentals and vegetables. Spores are alive and may be harmed by storage at high temperatures or contact with water for more than 24 hours.

**MODE OF ACTION AND APPLICATION TIMING:**

Begin treatment of crops at the first appearance of the insect pest. Typically, it takes 7-10 days after the first spray to see control. Application rates, frequency, spray coverage and insect numbers impact the speed at which acceptable control is achieved. BotaniGard ES is most effective when used early, before high insect populations develop. Reapply as necessary under a pest management program that includes close scouting. Intense pest outbreaks may require a combination of BotaniGard ES with a compatible insecticide.

**PRECAUTIONS:**

KEEP OUT OF REACH OF CHILDREN. May cause sensitization. May irritate eyes. Avoid contact with eyes, skin and clothing. Avoid breathing vapors (dust or spray mist). Wash thoroughly with soap and water after handling.

If this pest control product is to be used on a commodity that may be exported to the U.S. and you require information on acceptable residue levels in the U.S., visit Crop Life Canada's web site at: [www.croplife.ca](http://www.croplife.ca).

**PERSONAL PROTECTIVE EQUIPMENT (PPE):**

Applicators and other handlers must wear: Coveralls over long-sleeved shirt and long pants, shoes plus socks, water-proof gloves and dust/mist filtering respirator meeting NIOSH standards of at least N-95, R-95 or P-95. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

**USER SAFETY RECOMMENDATIONS:**

Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

**ENVIRONMENTAL PRECAUTIONS:**

This product may be toxic to bees exposed to direct treatment, or drift. DO NOT apply this product while bees are actively foraging. Minimize overspray to reduce harmful effects on bees in greenhouses. May be harmful to beneficial insects. Avoid direct contact with beneficial insects. This product contains aromatic petroleum distillates which are toxic to aquatic organisms.

**FIRST AID:**

DANGER. This product contains petroleum distillates.

**IF SWALLOWED:**

- Call a poison control center or doctor immediately for treatment advice.
- Do not induce vomiting unless told to do so by a poison control center or doctor.
- Do not give **any** liquid to the person.
- Do not give anything by mouth to an unconscious person.

**IF INHALED:**

- Move person to fresh air.
- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.
- Call a poison control center or doctor for treatment advice.

**IF IN EYES:**

- Hold eye open and rinse slowly and gently with water for 15 - 20 minutes.
- Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
- Call a poison control center or doctor for treatment advice.

**IF ON SKIN OR CLOTHING:**

- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15 - 20 minutes.
- Call a poison control center or doctor for treatment advice.