

BioTitan WP

COMMERCIAL

Biological Mycoinsecticide

Wettable powder

For reduction in numbers of Colorado potato beetle in field potato, tomato, bell pepper and eggplant crops. For the reduction in numbers of Tarnished plant bug in field cannabis and hemp, spinach, Chinese cabbage, lettuce, celery, strawberry, raspberry and blackberry crops. For the reduction in numbers of whiteflies, aphids and thrips in outdoor ornamentals including transplants, and for the reduction in numbers of aphids in sweet corn and peas. For the reduction in numbers of Chinch bug and larvae of European chafer and Japanese beetle in turf including vineyard turf.

ACTIVE INGREDIENT: *Beauveria bassiana* strain ANT-03 containing at least 1×10^{10} spores (conidia)/g.

Warning, contains the allergen soy

REGISTRATION NO: 33923 PEST CONTROL PRODUCTS ACT

KEEP OUT OF REACH OF CHILDREN

READ THE LABEL BEFORE USING

**POTENTIAL SENSITIZER
WARNING EYE IRRITANT
CAUTION POISON**

Net Contents: 500 g to 25 kg

Lot No.

Date of manufacture: _____

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PRECAUTIONS

KEEP OUT OF REACH OF CHILDREN. Harmful if inhaled. Avoid inhaling/breathing dusts or mists. Causes eye irritation. **DO NOT** get in eyes. May cause sensitization. Avoid contact with skin and clothing. Wear waterproof gloves, a long-sleeved shirt, long pants, goggles, socks and shoes, as well as a NIOSH-approved particulate filtering facepiece respirator with any N, R or P filter when handling, mixing/loading or applying the product and during all clean-up/repair activities. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before re-use.

Apply only when the potential for drift to areas of human habitation or areas of human activity such as houses, cottages, schools and recreational areas is minimal. Take into consideration wind speed, wind direction, temperature inversions, application equipment and sprayer settings.

Re-entry Interval: **DO NOT** re-enter or allow re-entry into treated areas for 4 hours or until sprays have dried, unless wearing appropriate personal protective equipment including long-sleeved shirt, long pants, waterproof gloves, socks and shoes.

FIRST AID

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 centre 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 centre or doctor for treatment advice.

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 centre or doctor for further treatment advice.

IF SWALLOWED Call a poison control centre or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control centre or doctor. Do not give anything by mouth to an unconscious person.

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

TOXICOLOGICAL INFORMATION

Treat symptomatically.

ENVIRONMENTAL PRECAUTIONS

The potential effects of this product on some non-target beneficial insects that may be used in Integrated Pest Management Programs (IPM) are not known. May be harmful to beneficial insects and bees. Minimize spray drift to reduce harmful effects on beneficial insect and bees in habitats close to the application site. For agricultural uses, avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to the evening when most bees are not foraging. Avoid applications when bees are foraging in the treatment area in ground cover containing blooming weeds. For use on turf, avoid applications or prevent drift to blooming plants or weeds. If applications must be made when weeds are blooming, restrict applications to the evening when most bees are not foraging. To further minimize exposure to pollinators, refer to the complete guidance "Protecting

Pollinators during Pesticide Spraying – Best Management Practices” on the Health Canada website (www.canada.ca/pollinators).

To reduce runoff from treated areas into aquatic habitats avoid application to areas with a moderate to steep slope, compacted soil, or clay. Avoid application when heavy rain is forecast. Contamination of aquatic areas as a result of runoff may be reduced by including a vegetative filter strip between the treated area and the edge of the water body

STORAGE

Store in a cool, dry place. Can be stored up to 18 months if in the refrigerator at 4°C. Can be stored up to 6 months at 21°C in an unopened package. If the package is open, this product can be stored up to 3 months at 21°C. Tightly reclose the container of unused product to prevent decrease of the efficacy. The BioTitan WP contains live spores of the naturally occurring fungus, *B. bassiana*. Spores may be damaged by storage at high temperatures (higher than 25°C) or contact with water for more than 24 hours. Store this product away from food or feed.

DISPOSAL

1. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
2. Follow provincial/territorial instruction 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/territorial requirements.
5. For information on disposal of unused, unwanted product, contact the manufacturer or the provincial/territorial regulatory agency. Contact the manufacturer and the provincial/territorial regulatory agency in case of a spill, and for clean-up of spills.

GENERAL INFORMATION

BioTitan WP is a wettable powder formulation containing live spores of the naturally occurring fungus *Beauveria bassiana* strain ANT-03 as the active ingredient.

These live spores may be sensitive to environmental conditions. For optimal efficacy:

- Do not apply in extremely hot weather.
- On sunny days, apply later in the afternoon; do not apply at mid-day when temperatures are highest and the sun is most intense.
- For foliar applications, do not apply when heavy rain is forecast.

BioTitan WP reduces numbers of:

Colorado potato beetle in field potato, tomato, bell pepper and eggplant crops; tarnished plant bug in field spinach, Chinese cabbage, lettuce, celery, strawberry, raspberry, blackberry and cannabis and hemp crops; whiteflies, aphids and thrips in outdoor ornamentals including transplants; aphids in sweet corn and peas; chinch bug and larvae of European chafer and Japanese beetle in turf and vineyard turf

DIRECTIONS FOR USE

To protect pollinators, follow the instructions regarding bees in the ENVIRONMENTAL PRECAUTIONS section.

As this product is not registered for the control of pests in aquatic systems, **DO NOT** use to control aquatic pests.

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

DO NOT apply by air.

This product may be applied with conventional hand-held, and/or ground spray equipment. Use freshly prepared spray solution each time as outlined below under MIXING INSTRUCTIONS. Begin treatment of crops at the first appearance of the insect pest. Application rates, frequency, spray coverage and insect numbers impact the speed at which acceptable control is achieved. BioTitan WP is most effective when used early, before high insect populations develop. It takes 5-7 days after the first application to observe control. Reapply if necessary, as directed below under APPLICATION FREQUENCY AND TIMING. Multiple applications may be required to reduce numbers of target pests.

Do not mix with fungicide. If a fungicide must be used, make the application of the fungicide at least 4 days before the BioTitan WP application or at least 2 days after the BioTitan WP application.

APPLICATION RATE

For foliar application to field crops and outdoor ornamentals: Apply 2 to 4 kg/ha depending on the density of the insect population. Use enough water volume to cover foliage infested with insect pests. The amount of water needed depends on the size of the crop and spraying equipment. For foliar applications to cannabis and industrial hemp, do not apply past the vegetative stages.

For turf: Apply 4 to 8 kg/ha or 4 to 8 g/10 m².

For transplant dip application: Prepare a dip suspension having a concentration of 4 to 8 g BioTitan WP per L of water. Immerse transplants in the dip suspension for 5 seconds. Verify that all plant surfaces are wet. Do not use the suspension for more than one day.

MIXING INSTRUCTIONS

Use freshly prepared spray solution each time.

BioTitan WP will benefit from a pre-mix into a smaller size container before being added to the spray tank.

1. How to pre-mix BioTitan WP:
 - a. Select an appropriate size container depending on the total volume of pre-mix suspension needed.
 - b. Add the required amount of BioTitan WP to the container depending on the area to be treated.
 - c. Slowly add clean water. Use 1 L of water for every 200 g of BioTitan WP.
 - d. Shake vigorously* for 30-60 seconds or until the texture becomes creamy/silky.
2. Add the pre-mixed BioTitan WP into a spray tank half-filled with water.
3. Rinse pre-mix container three times and add all rinsings to the spray tank.
4. Fill the spray tank with water to the desired spray volume.
5. Keep a constant agitation in the spray tank. An emulsifying agent can be added.

*A mechanical mixer providing high agitation speed, e.g., a drill with a mixing paddle or a hand mixer, will save time during remix.

APPLICATION FREQUENCY AND TIMING

Reapply, if necessary, within a 7-day interval. In case of pest outbreak, the product can be used every 3-5 days. Multiple applications may be required to reduce numbers of target pests. While there is no limit on number of applications, foliar applications to cannabis and hemp are limited to vegetative/preflowering stages of the crop.

PRE-HARVEST INTERVALS (PHI)

Pre-harvest interval for BioTitan WP is zero (0) days and it can be applied up to the day of harvest.

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.