

BIOPROTEC 3P

DRY FLOWABLE BIOLOGICAL INSECTICIDE

GROUP	11	INSECTICIDE
-------	----	-------------

FOR USE ON AGRICULTURAL and GREENHOUSE CROPS

COMMERCIAL

READ THE LABEL BEFORE USING

GUARANTEE:

Bacillus thuringiensis subspecies *kurstaki*, strain HD-1, at a potency of 25,000 International Units (IU) per mg., equivalent to 25.0 BIU (Billion International Units) per kilogram.

POTENTIAL SENSITIZER

REGISTRATION NO: 27750

PEST CONTROL PRODUCTS ACT

Net Contents : 0,5 – 1 – 2 – 5 – 10 Kilograms

Lot No:

Date of Manufacture: _____

This product should be used within 12 months of the date of manufacture.

**AEF Global Inc.
201, Mgr-Bourget
Lévis (Québec)
G6V 9V6
Canada**

Toll-free Help-line : 1-866-622-3222

www.aefglobal.com

DIRECTIONS FOR USE

Bioprotec 3P Dry Flowable Biological Insecticide is toxic only to some species of lepidopteran larvae. It is a stomach intoxicant only; to be effective, deposits of Bioprotec 3P Dry Flowable Biological Insecticide must be ingested by susceptible larvae. Thorough coverage of target foliage where larvae are feeding is essential. In general, larvae should be treated when they are newly hatched and actively feeding. After ingestion of a sufficient dose, larvae cease feeding within a few hours and death occurs in 2 - 5 days.

Bioprotec 3P Dry Flowable Biological Insecticide is a dry flowable formulation which must be diluted with clean water. Before diluting in the spray tank, mix the recommended amount of Bioprotec 3P Dry Flowable Biological Insecticide with a small quantity of clean water and shake well. When the product is dissolved, add this solution to the required amount of water in the spray tank. Agitate as necessary to maintain suspension. Avoid application when significant rainfall is imminent. For early morning applications, foliage should not be wet with dew to the point of runoff.

FOR GROUND APPLICATION ONLY: Do not apply by Air

Dilute required amount of Bioprotec 3P Dry Flowable Biological Insecticide with clean water only to the volume required to provide thorough coverage. Wet foliage thoroughly but not to the point of excessive run-off.

For mist blower applications, add the recommended amount of Bioprotec 3P Dry Flowable Biological Insecticide to clean water, at a mix ratio ranging from 1:40 to 1:100. Recommended maximum volume of spray mixture is 100 Litres per hectare.

For high volume hydraulic sprayers, add the recommended volume of Bioprotec 3P Dry Flowable Biological Insecticide to water at a mix ratio ranging from 1:100 to 1:1000. Recommended maximum volume of spray mixture is 1000 Litres per hectare.

DIRECTIONS FOR USE: FIELD CROPS , ORCHARD USES, GREENHOUSE USES

Apply at first signs of infestation when larvae are small. Repeat applications, according to economic threshold, as necessary to maintain control. Thorough coverage of all foliage is essential.

Bioprotec 3P Dry Flowable Biological Insecticide may be applied up to the day of harvest. Use recommended amount of Bioprotec 3P Dry Flowable Biological Insecticide in a minimum of 300 litres of water per hectare, depending on the type of equipment and crop. Use diluted spray mixtures within a 12 hour period.

APPLICATION RATES:

CROP/SITE	PEST	Kg / Hectare	BIU / Hectare
Bok Choy, Broccoli, Brussels Sprouts, Cabbage, Cauliflower, Celery, Chinese Cabbage, Chinese Broccoli, Collards, Asian Radish, Kale, Lettuce, Mustard Greens, Parsley, Potatoes, Spinach, Turnip Greens, Tomatoes	Cabbage Looper, Diamond Back Moth, Imported Cabbage Worm	0,72 – 1,45	18 – 36 BIU/Ha
Tomatoes	Tomato Fruitworm ¹	0,72	18 BIU/Ha
Tobacco, Tomatoes	Hornworms	0,32 – 0,56	8 – 14 BIU/Ha
Sweet corn, Succulent commons beans (e.g. green, yellow/wax, snap, string)	European corn borer ²	1,45 – 2,0	36 – 50 BIU/Ha
Sweet pepper	European corn borer ²	1,45	36 BIU/Ha
Orchards: Apple, Apricot, Cherry, Peach, Pear Plum/Prune	Leafrollers ³ (Fruittree, European, Obliquebanded, Three-lined), Fruitworms	1,45 – 2,0	36 – 50 BIU/Ha
Apples	Winter Moth	0,35	8.8 BIU/Ha
Blueberries ⁴ , Ornamental Urban Trees ⁵	White Marked Tussock Moth	2,0	50 BIU/Ha
Cranberries	Green and Brown Spanworms	0,36 – 0,72	9 – 18 BIU/Ha
Raspberries ⁶	Obliquebanded Leafroller	0,72 – 1,45	18 – 36 BIU/Ha
Timothy Mixtures and Other Forage Grasses	Essex Skipper	0,28 – 0,36	7 – 9 BIU/Ha
Rangeland	Range Caterpillar (<i>Hemileuca</i>)	0,32 – 0,56	8 – 14 BIU/Ha

1. Apply every 5 - 7 days.
2. Apply at first signs of hatching, not after first signs of damages on leaves. Apply before larvae begin entering stalk. Adjust spray mixture volume up to the point of runoff to ensure thorough coverage of leaves and stalk.
3. Apply in 600-800 L water/ha at pink stage and, if populations are heavy, at petal fall using an airblast orchard sprayer. For high volume sprayers, add recommended amount of Bioprotec 3P Dry Flowable Biological Insecticide to water at a mix ratio of 1:100 to 1:1000. Recommended maximum spray volume is 1000 litres/hectare. Weekly applications may be necessary if egg hatch is asynchronous. For spindle plantings and dwarf trees, volume and application equipment must be adjusted accordingly. Consult an appropriate orchard pest management guide for further details regarding Tree Row Volume (TRV) applications.
4. Make 2 applications. Make first application when larvae are in peak second instar. Make second application 5 – 7 days later.
5. Make 2 applications. Make first application when larvae are in peak second instar. Make second application 5 – 7 days later.
6. Apply in a minimum volume of 600 Litres/ha.

GREENHOUSE USES

Apply to young larvae at first signs of infestation. Repeat applications as necessary to maintain control of young larvae. The timing and number of applications will depend on foliage development and larval activity, including egg hatch, stage of larval development and population pressure.

APPLICATION RATES:

CROP	PEST	Kilograms per 1000L water
Vegetables (Tomatoes, Lettuce, Cucumbers, Peppers)	Cabbage Looper, Tomato Hornworm	0,92 0,46 – 0,92
Chrysanthemums	Cabbage Looper	0,92
Roses	Omnivorous Leafroller	0,92

NOTE TO USER: READ THE FOLLOWING BEFORE USING THIS PRODUCT FOR

THE INDICATED SPECIAL USE APPLICATIONS:

The DIRECTIONS FOR USE for this product for these uses described below were developed by persons other than AEF Global and accepted for registration by Health Canada under the User Requested Minor Use Label Expansion program. AEF Global itself makes no representation or warranty with respect to performance (efficacy) or crop tolerance (phytotoxicity) claims for this product when used on the mentioned crop listed below. Accordingly, the Buyer and User assume all risks related to performance and crop tolerance arising, and agree to hold AEF Global harmless from any claims based on efficacy or phytotoxicity in connection with the use described below.

Cultures	Ravageurs	Kilogramme / 1000L d'eau
Greenhouse ornamentals, Greenhouse herbs, Greenhouse vegetables (peppers, tomatoes, cucumbers) for fruit and transplant production	<i>Duponchelia fovealis</i> ¹ <i>Opogona sacchari</i> ²	0,80

¹ Foliar and drench application. Make application when egg hatch is essentially complete but before crop damage occurs. Apply the product such that it flows along the stem, coating it well, and into the top layer of the soil around the base of the plant. Thorough coverage of foliage and stems is necessary. Reapply at 7 day intervals, as required by monitoring.

² Foliar application. Make application just prior to egg hatch. Apply the product such that it flows along the stem, coating it well. Thorough coverage of foliage and stems is necessary (minimum of 300 L of water per hectare). Reapply at 7 day intervals, as required by monitoring.

RESISTANCE MANAGEMENT RECOMMENDATIONS:

For resistance management, please note that Bioprotec 3P Dry Flowable Biological Insecticide contains a group 11 insecticide. Any insect population may contain individuals naturally resistant to Bioprotec 3P Dry Flowable Biological Insecticide and other group 11 insecticides. The resistant individuals may dominate the insect population

if this group of insecticides and used repeatedly in the same fields. Other resistance mechanisms that are not linked to site of action but are specific for individual chemicals, such as enhanced metabolism, may also exist. Appropriate resistance management strategies should be followed.

To delay insecticide resistance:

- Where possible, rotate the use of Bioprotec 3P Dry Flowable Biological Insecticide or other group 11 insecticides with different groups that control the same pests in a field.
- Use tank mixtures with insecticides from different groups when such use is permitted.
- Insecticide use should be based on an IPM program that includes scouting, record keeping, and considers cultural, biological and other chemical control practices.
- Monitor treated pest populations for resistance development.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or IPM recommendations for the specific site and pest problems in your area.
- For further information or to report suspected resistance, contact a AEF Global inc. representative at 1-866-622-3222 or at www.aefglobal.com

PRECAUTIONS:

KEEP OUT OF REACH OF CHILDREN. May cause sensitization. Avoid contact with skin, eyes or clothing. Wear a long-sleeved shirt, long pants, water-proof gloves and eye goggles 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 reuse.

If the 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 CropLife Canada's web site at : www.croplife.ca.

FIRST AID:

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 a poison control centre or doctor. Do not give anything by mouth to an unconscious person.

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 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.

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

TOXICOLOGICAL INFORMATION:

Treat symptomatically.

STORAGE:

Store at temperatures between 4° and 25° C for up to 12 months from the date of manufacture. Cooler storage temperatures are preferred. Store container upright and keep tightly closed when not in use. After extended storage, shake or stir contents to assure a uniform suspension.

DISPOSAL:

Do not reuse this container for any purpose. This is a recyclable container, and is to be disposed of at a container collection site. Contact your local distributor/dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site:

1. Triple or pressure rinse the empty container. Add the rinsing to the spray mixture in the tank.
2. Make the empty, rinsed container unsuitable for further use.

If there is no container collection site in your area, dispose of the container in accordance with provincial requirements.

For information on disposal of unused, unwanted product, contact the manufacturer other provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a 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 offence 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.

Bioprotec is a registered trademark of AEF Global Inc.

This label transcript service is offered by the Pest Management Regulatory Agency to provide efficient searching for label information. This service and this information do not replace the official hard-copy label. The PMRA does not provide any guarantee or assurance that the information obtained through this service is accurate, current or correct, and is therefore not liable for any loss resulting, directly or indirectly, from reliance upon this service.