

73049-480

09/27/2012

1/20

UNIT STATES ENVIRONMENTAL PROTECTION AGENCY



U S ENVIRONMENTAL PROTECTION AGENCY  
Office of Pesticide Programs  
Biopesticides and Pollution Prevention Division (7511C)  
1200 Pennsylvania Avenue NW  
Washington DC 20460

EPA Reg Number  
73049-480

Date of Issuance  
SEP 27 2012

Term of Issuance **Unconditional**

Name of Pesticide Product  
**VBC-60236 Biological  
Insecticide Dry Flowable**

**NOTICE OF PESTICIDE**  
 Registration  
 Reregistration  
(under FIFRA as amended)

Name and Address of Registrant (include ZIP Code)

Valent BioSciences Corporation  
870 Technology Way  
Libertyville IL 60048

**Note** Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Biopesticides and Pollution Prevention Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number

On the basis of information furnished by the registrant the above named pesticide is hereby registered/reregistered under the Federal Insecticide Fungicide and Rodenticide Act

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment the Administrator on his or her motion may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This registration does not eliminate the need for continual reassessment of the pesticide. If EPA determines at any time that additional data are required to maintain in effect an existing registration the Agency will require submission of such data under section 3(c)(2)(B) of FIFRA.

This product is unconditionally registered in accordance with FIFRA Sec 3(c)(5) provided you

- 1 Submit and/or cite all data required for registration/ reregistration of your product under FIFRA section 3(c)(5) and section 4 when the Agency requires all registrants of similar products to submit such data
- 2 Revise the EPA Registration Number to read, "EPA Reg No 73049-480 "
- 3 Submit two (2) copies of the revised final printed labeling before you release the product for shipment

Signature of Approving Official

Date

27 September 2012

Keith A Matthews Director  
Biopesticides and Pollution Prevention Division (7511P)

EPA Form 8570 6

CONCURRENCES

SYMBOL	7511P	7511P	7511P	7511P			
SURNAME	a. Schell	[Signature]	Unlow	Matley			
DATE	9/27/12	9/27/12	9/27/12	28 Sept 12			

EPA Form 1320-1A (1/90)

Printed on Recycled Paper

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4 Submit the following data and information, determined by EPA to be acceptable, by the due dates specified below

Study Type Required Data/Information	Due Date
Storage Stability (OPPTS Guideline 830 6317)	September 27, 2013
Corrosion Characteristics (Guideline Number 830 6320)	September 27, 2013

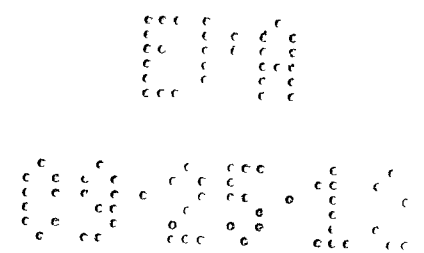
5 Report adverse effects and hypersensitivity incidents Notwithstanding the information stated in the previous sections, it should be clearly understood that certain specific data are required to be reported to EPA as a requirement for maintaining the federal registration for a pesticide product Reports of all incidents of adverse effects to the environment must be submitted to EPA under the provisions stated in FIFRA section 6(a)(2) Additionally, all incidents of hypersensitivity (including both suspected and confirmed incidents) must be reported to EPA under the provisions of 40 CFR § 158 2140(d)

A stamped copy of the label is enclosed for your records

The basic confidential statement of formula (CSF) dated August 11, 2011 is acceptable and supersedes all CSFs previously submitted for this registration A copy has been placed in the file jacket for this registration

- Enclosures (2)
- Accepted Label
- A-79 Enclosure

**VBC-60236  
BIOLOGICAL INSECTICIDE  
DRY FLOWABLE**



 **For Organic Production**

Active Ingredient	
<i>Bacillus thuringiensis</i> subsp <i>kurstaki</i> strain VBTS-2546 fermentation solids, spores, and insecticidal toxins*	67 0%
Other Ingredients	33 0%
Total	100%

\*Potency 110,000 Cabbage Looper Units (CLU) per mg (49.8 billion CLU per pound)

The percent active ingredient does not indicate product performance and potency measurements are not federally standardized

**KEEP OUT OF REACH OF CHILDREN  
CAUTION**

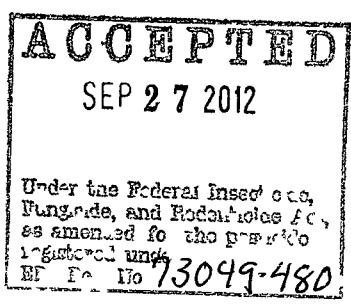
Valent BioSciences Corporation  
870 Technology Way, Suite 100  
Libertyville, IL 60048

EPA Registration No 73049-  
EPA Est No 33762-IA-1

Batch Code \_\_\_\_\_

Net Content \_\_\_\_\_

Expiration Date \_\_\_\_\_



<b>FIRST AID</b>	
<b>If in eyes</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye</li> <li>• Call a poison control center or doctor for treatment advice</li> </ul>
<b>HOTLINE NUMBER</b>	
Have the product container or label with you when calling a poison control center or doctor or going for treatment You may also contact 1-800 892-0099 (24 hours) for emergency medical treatment and/or transport emergency information For all other information, call 1 800 6 Valent	

**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS AND DOMESTIC ANIMALS  
CAUTION**

Causes mild eye irritation Avoid contact with eyes Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet Remove and wash contaminated clothing before reuse

**Personal Protective Equipment (PPE)**

Applicators and other handlers must wear

- Long sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks

Mixer/loaders and applicators must wear a dust/mist filtering respirator meeting NIOSH standards of at least N-95, R-95, or P 95 Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization

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

**Engineering Controls**

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170 240(d) (4 6) the handler PPE requirements may be reduced or modified as specified in the WPS

**IMPORTANT** When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for "applicators and other handlers" and have such PPE immediately available for use in an emergency, such as a spill or equipment break down

**User Safety Recommendations**

Users should remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.  
User should remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

**ENVIRONMENTAL HAZARDS**

For terrestrial uses Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters or rinsate.

This product must not be applied aerially within ¼ mile of any habitats of endangered or threatened lepidoptera. No manual application can be made within 300 feet of any threatened or endangered lepidoptera.

**DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

**AGRICULTURAL USE REQUIREMENTS**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 4 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is:

- Coveralls
- Waterproof gloves
- Shoes plus socks

**NON-AGRICULTURAL USE REQUIREMENTS**

The requirements in this box apply to uses that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries or greenhouses.

Keep unprotected persons out of the treated areas until sprays have dried.

## PRODUCT INFORMATION

After ingesting a lethal dose of VBC 60236, larvae stop feeding within the hour, and will die within several hours to 3 days. Mortality varies with larval size (instar), lepidopteran species, and dose consumed. Following ingestion, larvae become sluggish, discolor, then shrivel, blacken and die. Smaller larvae die more quickly.

VBC-60236 may be applied in conventional ground or aerial equipment with quantities of water sufficient to provide uniform coverage of infested plant parts. The volume of water needed per acre will depend on crop development, relative humidity, spray equipment, and local experience. Usually selection of moderate to high spray volume will provide the best results in most equipment. For optimal results, use at least 20 gallons of water per acre for ground application. For aerial application use at least 3 gallons of water per acre, exception being arid areas, where 5 to 10 gallons are required.

## APPLICATION INSTRUCTIONS

See Chemigation section for chemigation use directions.

**Days to Harvest** There are no restrictions on applying VBC-60236 up to the time of harvest. Individual state regulations may vary and must be consulted for allowable pre harvest application intervals.

Use VBC-60236 for any labeled pest in both field and greenhouse crops as well as in self-contained, closed-system, ornamental ponds as described on this label.

VBC-60236 is an insecticide for use against listed caterpillars (larvae) of lepidopterous insects. Close scouting and early attention to infestations is highly recommended. Larvae must eat deposits of VBC-60236 to be affected. Always follow these directions.

Treat at egg hatch or when larvae are young (early instars) before the crop is damaged.

Larvae must be actively feeding on treated, exposed plant surfaces. If temperatures are cold, and larvae are less active, control may be slower.

Thorough spray coverage is needed to provide complete and uniform deposit of VBC-60236 on all plant foliage and fruit surfaces. Use overhead and drop nozzles to obtain good spray coverage on both sides of foliage. Use sufficient spray volume to insure uniform deposition on all plant surfaces. If foliage canopy is extensive or dense, increase spray volume to ensure all surfaces are sufficiently covered.

Under heavy pest population pressure or multiple larval life stages, use the higher label rates, shorten the spray interval, and/or raise spray volume to improve spray coverage.

Repeat applications at an interval sufficient to maintain control, usually 3 to 14 days depending on plant growth rate, moth activity, rainfall after treating, and other factors. If attempting to control a pest with a single spray, make the treatment when egg hatch is essentially complete, but before crop damage occurs.

For hard-to-wet crops such as cabbage or to improve weather fastness of the spray deposits use a spreader-sticker approved for use on growing and harvested crops.

Do not use if rain is expected within 24 hours of spraying. If rain falls shortly after application, re-treatment may be necessary.

VBC-60236 may be tank mixed with other labeled insecticides to enhance control. Additions of other commonly used herbicides, insecticides, and fungicides are generally not deleterious to VBC 60236 however do not apply as a tank mix with, or within two days of application of alkaline products such as foliar nutrients, liquid fertilizers, or metal-based fungicides (e.g. copper sulfate-based materials). Use of the resulting tank mix must be in accordance with the more restrictive label limitations and precautions. Do not exceed dosage rates. This product cannot be mixed with any product containing a label prohibition against such mixing. Before tank mixing VBC 60236 with other labeled products including spreader stickers, check for tank mix compatibility. For maximal preservation of beneficial predators and parasites, do not use VBC-60236 in a program with broad spectrum pest control insecticides.

Mixing instructions Add water to the mix tank and provide moderate agitation. While agitating, add the required amount of VBC-60236. Continue agitation, and add other spray materials, if any. Add remaining water, if any, and agitate until fully mixed. Maintain the suspension with moderate agitation while loading and spraying. Do not mix more VBC 60236 than can be used in a 3 day period.

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment- and weather related factors determines the potential for spray drift. The applicator and the grower are responsible for considering all of these factors when making decisions.

For Smaller Spray Volumes

<u>If Product Use Rate is</u>	<u>Use This Amount Per Gallon Water</u>	
1/4 lb /acre or 1/4 lb/100 gals water	1/2 tsp product	(0.04 oz)
1/2 lb /acre or 1/2 lb/100 gals water	1 tsp product	(0.08 oz)
1 lb /acre or 1 lb/100 gals water	2 tsps product	(0.16 oz)

**CHEMIGATION USE DIRECTIONS**

Apply this product only through sprinkler including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move irrigation systems. Do not apply this product through any other type of irrigation system. Do not connect an irrigation system (including greenhouse systems) used for pesticide applications to a public water system.

Crop injury, lack of effectiveness, or illegal residues in the crop can result from nonuniform distribution of treated water. A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise. Allow sufficient time for pesticide to be flushed through all lines and all nozzles before turning off irrigation water.

**Spray Preparation**

First prepare a suspension of VBC 60236 in a mix tank. Fill tank with 1/2 to 3/4 the desired amount of water. Start mechanical or hydraulic agitation. Add the required amount of VBC-60236, and then the



remaining volume of water. Then set the sprinkler to deliver a minimum of 0.1 to 0.3 inch of water per acre. Start sprinkler and uniformly inject the suspension of VBC-60236 into the irrigation water line so as to deliver the desired rate per acre. The suspension of VBC-60236 should be injected with a positive displacement pump into the main line ahead of a right angle turn to insure adequate mixing. Any questions on calibration should be directed to your State Extension Service Specialists, to equipment manufacturers or other experts.

NOTE: Avoid further field irrigation over the treated area for 24 to 48 hours after treatment with VBC-60236 to prevent washing the material off the crop.

**GENERAL PRECAUTIONS FOR APPLICATIONS THROUGH SPRINKLER IRRIGATION SYSTEMS**

Maintain continuous agitation in the mix tank during mixing and application to insure a uniform suspension.

Greater accuracy in calibration and distribution will be achieved by injecting a larger volume for a more dilute solution per unit time.

The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock. Do not apply when wind speed favors drift beyond the area intended for treatment, system connections or fittings leak, nozzles do not provide uniform distribution or lines containing the product must be dismantled and drained.

**FIELD CROPS**

<b>CROP</b>	<b>PEST</b>	<b>APPLICATION RATE (lb product/A)</b>
<p><b>Vegetables, root and tuber (Crop Group 1)</b> Including arracacha arrowroot artichoke Chinese artichoke Jerusalem beet garden beet sugar burdock edible canna edible carrot cassava, bitter and sweet celeriac chayote (root) chervil turnip rooted chicory chufa dasheen (taro) ginger ginseng horseradish leren parsley, turnip rooted parsnip potato radish radish oriental rutabaga salsify salsify black salsify, Spanish skirret sweet potato tamer turmeric turnip yam bean yam true</p>	<p>Looper Omnivorous Leafroller Hornworm Imported Cabbageworm Diamondback Moth GreenCloverworm Webworm Saltmarsh Caterpillar Cutworm Cross stripped Cabbageworm <i>Heliotis virescens</i> <i>Helicoverpa zea</i></p> <p>Armyworm<sup>1</sup></p>	<p>0 25 1</p> <p>0 5 1</p>
<p><b>Vegetable, bulb (Crop Group 3-07)</b> Including Chive fresh leaves chive Chinese fresh leaves daylily bulb elegans hosta fritillaria bulb fritillaria leaves garlic bulb garlic great headed bulb garlic serpent bulb kurrat lady's leek leek leek wild lily bulb onion Beltsville bunching onion bulb onion Chinese bulb onion fresh onion green onion macrostem onion pearl onion potato bulb onion tree tops onion Welsh tops shallot bulb shallot fresh leaves cultivars variety and/or hybrids of these</p>	<p>Looper Omnivorous Leafroller Hornworm Imported Cabbageworm Diamondback Moth GreenCloverworm Webworm Saltmarsh Caterpillar Cutworm Cross stripped Cabbageworm <i>Heliotis virescens</i> <i>Helicoverpa zea</i></p> <p>Armyworm<sup>1</sup></p>	<p>0 25 1</p> <p>0 5 1</p>
<p><b>Vegetable, leafy, except brassica (Crop Group 4)</b> Including Amaranth (Chinese spinach) arugula (roquette) cardoon celery celery Chinese celtuce chervil chrysanthemum, edible leaved chrysanthemum garland corn salad cress garden, cress, upland dandelion dock (sorrel) endive (escarole) fennel Florence lettuce head and leaf orach parsley purslane garden purslane winter radicchio (red chicory) rhubarb spinach New Zealand spinach vine Swiss chard</p>	<p>Looper Omnivorous Leafroller Hornworm Imported Cabbageworm Diamondback Moth GreenCloverworm Webworm Saltmarsh Caterpillar Cutworm Cross stripped Cabbageworm <i>Heliotis virescens</i> <i>Helicoverpa zea</i></p> <p>Armyworm<sup>1</sup></p>	<p>0 25 1</p> <p>0 5 1</p>

CROP	PEST	APPLICATION RATE (lb product/A)
<p><b>Vegetable, brassica leafy (Crop Group 5)</b> Including Broccoli broccoli Chinese (gai lon) broccoli raab (rapini) Brussels sprouts cabbage cabbage Chinese (bok choy) cabbage Chinese (napa) cabbage Chinese mustard (gai choy) cauliflower cavalo broccoli collards kale kohlrabi mizuna mustard greens mustard spinach rape greens</p>	<p>Looper Omnivorous Leafroller Hornworm Imported Cabbageworm Diamondback Moth GreenCloverworm Webworm Saltmarsh Caterpillar Cutworm Cross stripped Cabbageworm <i>Helotus virescens</i> <i>Helicoverpa zea</i></p> <p>Armyworm<sup>1</sup></p>	<p>0 25 1</p> <p>0 5 1</p>
<p><b>Vegetable, legume (succulent or dried) (Crop Group 6)</b> Including Bean (<i>Lupinus</i>) (includes grain lupin sweet lupin white lipin and white sweet lupin) bean (<i>Phaseolus</i>) (includes field bean kidney bean lima bean navy bean pinto bean runner bean, snap bean, tepary bean wax bean) bean (<i>Vigna</i>) (includes adzuki bean asparagus bean blackeyed bean catjang, Chinese longbean cowpea crowder pea, moth bean, mung bean, rice bean southern pea urd bean yardlog bean) broad bean (fava) chickpea (garbanzo) guar jackbean lablab bean lentil pea (<i>Pisum</i>) includes dwarf pea edible podded pea English pea field pea garden pea green pea snowpea sugar snap pea) pigeon pea soybean soybean (immature seed) sword bean</p>	<p>Looper Soybean looper Green Cloverworm Velvetbean Caterpillar</p> <p>Armyworm<sup>1</sup> Podworm<sup>1</sup></p>	<p>0 25 1</p> <p>0 5 1</p>
<p><b>Vegetable, fruiting (Crop Group 8 10)</b> Including African eggplant bush tomato bell pepper cocona currant tomato eggplant garden huckleberry golj berry groundcherry, martynia naranjilla okra pea eggplant pepino nonbell pepper roselle scarlet eggplant sunberry tomatillo tomato, tree tomato cultivars varieties and/or hybrids of these</p>	<p>Looper Hornworm Tomato Fruitworm Variegated Cutworm Saltmarsh Caterpillar</p> <p>Armyworm<sup>1</sup></p>	<p>0 25 1</p> <p>0 5 1</p>

CROP	PEST	APPLICATION RATE (lb product/A)
<p><b>Vegetable, cucurbit (Crop Group 9)</b> Including Chayote waxgourd (Chinese preserving melon) citron melon cucumber gherkin gourd edible (includes hyotan cucuzza hechima Chinese okra), <i>Momordica</i> spp (includes balsam apple balsam pear, bittermelon, Chinese cucumber) muskmelon (includes cantaloupe) pumpkin, squash summer squash winter (includes butternutsquash calabaza hubbard squash acorn squash spaghetti squash) watermelon</p>	<p>Looper Melonworm Rindworm Complex</p> <p>Armyworm<sup>1</sup></p>	<p>0.25 1</p> <p>0.5 1</p>
<p><b>Fruit, citrus (Crop Group 10-10)</b> Including Australian desert lime Australian finger lime Australian round lime Brown River finger lime calamondin citron citrus hybrids grapefruit Japanese summer grapefruit kumquat lemon lime mediteranean mandarin mount white lime New Guines wild lime orange sour orange sweet pummelo Russell River lime Satsuma mandarin sweet lime tachibana orange Tahiti lime tangelo tangerine (mandarin) tangor trifoliolate orange uniq fruit cultivars varieties and/or hybrid of these</p>	<p>Fruitree Leafroller Orangedog Citrus Cutworm<sup>3</sup></p>	<p>0.25 1</p>
<p><b>Fruit, pome (Crop Group 11-10)</b> Including Apple azarole crabapple loquat mayhaw medlar pear pear Asian quince quince Chinese quince Japanese tejocote cultivars varieties and/or hybrid of these</p>	<p>Walnut Caterpillar Cankerworm Gypsy Moth Variegated Leafroller Redbanded Leafroller Tufted Apple Budworm Fruitree Leafroller Oriental Fruit Moth Cutworm Filbert Leafroller Obliquebanded Leafroller Codling Moth Twig Borer</p> <p>Armyworm<sup>1</sup></p>	<p>0.25 1</p> <p>0.5 1</p>
<p><b>Fruit, stone (Crop Group 12)</b> Including Apricot cherry sweet cherry tart, nectarine, peach, plum, plum Chickasaw plum Damson plum Japanese plumcot prune (fresh)</p>	<p>Redhumped Caterpillar Tent Caterpillar Omnivorous Leafroller Fall Webmoth</p>	<p>0.25 1</p>

CROP	PEST	APPLICATION RATE (lb product/A)
<p><b>Berry and small fruit group (Crop Group 13-07)</b> Including: Amur river grape; aronia berry; bayberry; bearberry; bilberry; blackberry (including Andean blackberry, arctic blackberry, bingleberry, black satin berry, boysenberry, brombeere, California blackberry, Chesterberry, Cherokee blackberry, Cheyenne blackberry, common blackberry, coryberry, darrowberry, dewberry, Dirksen thornless berry, evergreeb blackberry, Himalayaberry, hullberry, lavacabery, loganberry, lowberry, Lucretiaberry, mammoth blackberry, marionberry, mora, mures deronce, nectaberry, Northern dewberry, olallieberry, Oregon evergreen berry, phenomenalberry, rangeberry, ravenberry, rossberry, Shawnee blackberry, Southern dewberry, tayberry, youngberry, zarzamora, and cultivars, varieties and/or hybrid of these); blueberry, highbush; blueberry, lowbush; buffalo currant; buffaloberry; che; Chilean guava; chokeberry; cloudberry; cranberry; cranberry, highbush; currant, black; currant, red; elderberry; European barberry, gooseberry; grape; honeysuckle, edible; huckleberry; jostaberry; Juneberry (Saskatoon berry); kiwifruit, fuzzy; kiwifruit, hardy; lingonberry; maypop; mountain pepper berries; mulberry; muntries; native currant; partridgeberry; phalsa; pincherry; raspberry, black and red; riberry; salal; schisandra berry; sea buckthorn; serviceberry; strawberry; wild raspberry; cultivars, varieties, and/or hybrid of these.</p>	<p>Grapeleaf Skeletonizer (ground only) Grape Leafroller Achema Phinx Moth (Hornworm) Saltmarsh Caterpillar (ground only) Omnivorous Leafroller (ground only) Looper Orange Tortrix Obliquebanded Leafroller Tobacco Budworm Grape Berry Worm Melonworm Cutworm Gipsy Moth</p> <p>Cranberry Fruitworm Cherry Fruitworm Armyworm<sup>1</sup></p>	<p>0.25-1</p> <p>0.5-1</p>
<p><b>Nut, tree (Crop Group 14)</b> Including: Almond; beech nut; Brazil nut; butternut; cashew; chestnut; chinquapin; filbert (hazelnut); hickory nut; macadamia nut; pecan; walnut, black and English.</p>	<p>Walnut Caterpillar Cankerworm Gipsy Moth Variegated Leafroller Redbanded Leafroller Tufted Apple Budworm Fruittree Leafroller Oriental Fruit Moth Cutworm Filbert Leafroller Obliquebanded Leafroller Codling Moth Twig Borer</p> <p>Armyworm<sup>1</sup></p>	<p>0.25-1</p> <p>0.5-1</p>
<p><b>Grain, cereal (Crop Group 15)</b> Including: Barley; buckwheat; corn; millet, pearl; millet, proso; oats; popcorn; rice; rye; sorgum (milo); teosinte; wheat; wild rice.</p>	<p>Looper Headworm European Corn Borer</p> <p>Armyworm<sup>1</sup></p>	<p>0.25-1</p> <p>0.5-1</p>

CROP	PEST	APPLICATION RATE (lb product/A)
<b>Herbs and spices (Crop Group 19) Including</b> Allspice angelica, anise anise star annatto (seed) balm basil borage burnet chamomile caper buds caraway caraway black cardamom cassia bark cassia buds catnip celery seed chervil (dried) chive chive Chinese cinnamon clary clove buds coriander leaf (cilantro or Chinese parsley) coriander seed (cilantro) costmary cilantro (leaf) cilantro (seed) cumin curry leaf dill (dillweed) dill (seed), fennel (common) fennel, Florence (seed) fenugreek grains of paradise horehound hyssop juniper berry lavender lemongrass lovage (leaf) lovage (seed) mace marigold marjoram mustard (seed) nasturtium nutmeg parsley (dried) pennyroyal pepper black pepper white poppy (seed) rosemary rue, saffron sage savory summer and winter sweet bay tansy tarragon thyme vanilla wintergreen woodruff wormwood	Looper Saltmarsh Caterpillar  Armyworm <sup>1</sup>	0 25 1   0 5 1
<b>Alfalfa (hay and seed)</b> <b>Hay and other Forage Crops</b>	Looper Alfalfa Caterpillar European Skipper (Essex Skipper)  Armyworm <sup>1</sup>	0 25 1   0 5 1
<b>Asparagus</b>	Armyworm <sup>1</sup>	0 25 1
<b>Avocado</b>	Amobia Moth Omnivorous Leafroller Omnivorous Looper Orange Tortrix Spanworm	0 25 1
<b>Banana</b>	Banana Skipper	0 25 1
<b>Coffee*</b>	Banana Skipper	0 25 1
<b>Cotton</b>	Tobacco Budworm <sup>2</sup> Cotton Budworm <sup>2</sup> Looper Saltmarsh Caterpillar  Armyworm <sup>1</sup>	0 25 1     0 5 1

CROP	PEST	APPLICATION RATE (lb product/A)
<b>Flowers, Bedding Plants and Ornamentals**</b>	Looper Tobacco Budworm Omnivorous Leafroller Omnivorous Looper Diamondback Moth Ello Moth (Hornworm) Io Moth Oleander Moth Azalea Caterpillar  Armyworm <sup>1</sup>	0 25 1          0 5 1
<b>Fruit, tropical</b>	Hornworm Leafroller Omnivorous Looper Looper	0 25 1
<b>Hop</b>	Looper  Armyworm <sup>1</sup>	0 25 1  0 5 1
<b>Kiwi fruit</b>	Omnivorous Leafroller	0 25 1
<b>Malanga</b>	Saltmarsh Caterpillar  Armyworm <sup>1</sup>	0 25 1  0 5 1
<b>Peanut</b>	Looper Ververbean Catrpillar Green Cloverworm Podworm <sup>1</sup>	0 25 1
<b>Pineapple</b>	Gummosos Batrachedra Comosae (Hodges) Thecla Thecla Basilides (Geyr)	0 25 0 5

CROP	PEST	APPLICATION RATE (lb product/A)
Pomegranate	Walnut Caterpillar Cankerworm Gypsy Moth Variegated Leafroller Redbanded Leafroller Tufted Apple Budmoth Fruittree Leafroller Oriental Fruit Moth Cutworm Filbert Leafroller Codling Moth Armyworm <sup>1</sup> Twig Borer	0 25 1
Rape (Canola)	Looper <i>Heliothis virescens</i> <i>Helicoverpa zea</i>  Armyworm <sup>1</sup>	0 25 1   0 5 1
Safflower	Looper Saltmarsh Caterpillar  Armyworm <sup>1</sup>	0 25 1   0 5 1
Sunflower	Looper Head Moth	0 25 1
Tobacco	Tobacco Budworm Hornworm Looper	0 25 1
Turf	Sod Webworm	0 5 1
Watercress	Looper Armyworm <sup>1</sup> Diamondback Moth	0 25 1  Spray only when there is no standing water in the bed

\* Drench bark and new shoots with 1/2 1 lbs of VBC 60236 per acre, mixing with a sufficient volume of water to ensure uniform coverage

\*\*Use a ground applicator a minimum of 50 gallons total mix per acre, 50-100 psi and 3 7 nozzles per bed



<sup>1</sup> Use VBC-60236 to control small armyworms and/or podworms (1st and 2nd instar) when populations are light and full coverage sprays are applied Repeat treatment as necessary If mature worms or heavy populations are present use a contact insecticide to enhance control

<sup>2</sup>Use to control light to moderate populations of newly hatched worms in integrated pest management conditions Repeat treatments at 4 to 5-day intervals as long as necessary and results are acceptable Use in combination with ovicidal rates of labeled *Heliothis* ovicides

<sup>3</sup>Apply to light to moderate populations of newly-hatched worms

**GREENHOUSE/SHADEHOUSE AND OUTDOOR NURSERY**

CROP	PEST	APPLICATION RATE (lb product/A)
<p><b>Vegetable, leafy, except brassica (Crop Group 4)</b> Including Amaranth (Chinese spinach) arugula (roquette) cardoon celery celery Chinese celtuce chervil chrysanthemum edible leaved chrysanthemum garland, corn salad cress garden cress upland dandelion dock (sorrel) endive (escarole) fennel Florence lettuce head and leaf orach parsley purslane garden purslane winter radicchio (red chicory) rhubarb spinach New Zealand spinach vine Swiss chard</p>	<p><i>Heliothis virescens</i> <i>Helicoverpa zea</i></p>	<p>0.25-1</p>
<p><b>Vegetable, brassica leafy (Crop Group 5)</b> Including Broccoli broccoli Chinese (gai lan) broccoli raab (rapini) Brussels sprouts cabbage cabbage Chinese (bok choy) cabbage Chinese (napa) cabbage Chinese mustard (gai choy) cauliflower cavalo broccoli collards kale kohlrabi mizuna mustard greens mustard spinach rape greens</p>	<p><i>Heliothis virescens</i> <i>Helicoverpa zea</i></p>	<p>0.25-1</p>
<p><b>Vegetable, fruiting (Crop Group 8-10)</b> Including African eggplant bush tomato bell pepper cocona currant tomato eggplant garden huckleberry goji berry groundcherry martynia naranjilla okra pea eggplant pepino nonbell pepper roselle scarlet eggplant sunberry tomatillo tomato tree tomato cultivars varieties and/or hybrids of these</p>	<p><i>Heliothis virescens</i> <i>Helicoverpa zea</i></p>	<p>0.25-1</p>

CROP	PEST	APPLICATION RATE (lb product/A)
<b>Herbs and spices (Crop Group 19) Including</b> Allspice angelica anise anise star annatto (seed) balm basil borage burnet chamomile caper buds caraway caraway black cardamom cassia bark, cassia buds catnip celery seed chervil (dried) chive chive Chinese cinnamon clary clove buds coriander leaf (cilantro or Chinese parsley) coriander seed (cilantro) costmary cilantro (leaf) cilantro (seed) cumin curry leaf dill (dillweed) dill (seed) fennel (common) fennel Florence (seed) fenugreek grains of paradise horehound, hyssop juniper berry lavender lemongrass lovage (leaf) lovage (seed) mace marigold marjoram mustard (seed) nasturtium nutmeg parsley (dried) pennyroyal pepper black pepper white poppy (seed) rosemary rue saffron sage, savory summer and winter sweet bay tansy tarragon thyme vanilla wintergreen woodruff wormwood	<i>Helotia virescens</i> <i>Helicoverpa zea</i>	0.25 1

### AQUATIC ORNAMENTALS

CROP	PESTS	Use Rate*
Water lilies and other aquatic ornamentals	China Mark Moth	$\frac{1}{4}$ - $\frac{1}{2}$ tsp VBC 60236/100 sq ft (0.6 - 1.2 g VBC-60236/100 sq ft)

**FOR USE IN SELF-CONTAINED, CLOSED-SYSTEM, ORNAMENTAL PONDS ONLY**  
 Do not apply directly to treated finished drinking water reservoirs or drinking water receptacles

\*For a 10' x 10' pond (100 sq ft) mix  $\frac{1}{4}$  -  $\frac{1}{2}$  teaspoon of VBC 60236 in 1 quart of water and apply to pond surface. Adjust quantities accordingly based on specific pond size.

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### ORNAMENTAL TREES

CROP	PEST	APPLICATION RATE (lb product/100 gal*)
Shade Trees, Sugar Maple Trees Ornamental Trees (Coniferous and deciduous)	Gypsy Moth Bagworm Redhumped Caterpillar Spring and Fall Cankerworm Fall Webworm Elm Spanworm Tent Caterpillar California Oakworm Pine Butterfly Spruce budworm Saddle Prominent Caterpillar Douglas Fir Tussock Moth Western Tussock Moth Fruitree Leafroller Blackheaded Budworm Mimosa Webworm Jack Pine Budworm Saddleback Caterpillar Greenstriped Mapleworm Hemlock Looper	0.25-1

\*Rate for hydraulic sprayer For mist blowers, mix the applicable amount (lbs ) in 10 gallons of water

Note Use a suitable spreader sticker approved for forest insect control to improve coverage rain fastness and/or resist wash-off

#### STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal

**Pesticide Storage** Reclose containers of unused VBC 60236 Store in a dry place inaccessible to children and out of sunlight

**Pesticide Disposal** Do not contaminate food or feed by disposal Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility

**Container Handling** Nonrefillable container Do not reuse or refill this container Completely empty bag into application equipment by shaking and tapping sides and bottom to loosen clinging particles Offer for recycling, if available, or dispose of empty bag in a sanitary landfill or by incineration Do not burn, unless allowed by State and local ordinances

**NOTICE TO USER**

To the extent consistent with applicable law, seller makes no warranty, express or implied, of merchantability, fitness or otherwise concerning the use of this product other than as indicated on the label To the extent consistent with applicable law, user assumes all risks of use, storage or handling not in strict accordance with accompanying directions