



U.S. ENVIRONMENTAL PROTECTION AGENCY
 Office of Pesticide Programs
 Biopesticides and Pollution Prevention Division (7511P)
 1200 Pennsylvania Ave., N.W.
 Washington, D.C. 20460

EPA Reg. Number:

73049-502

Date of Issuance:

2/10/2015

NOTICE OF PESTICIDE:

Registration
 Reregistration
 (under FIFRA, as amended)

Term of Issuance:

Unconditional

Name of Pesticide Product:

Sympatico Biological Insecticide
 Emulsifiable Suspension

Name and Address of Registrant (include ZIP Code):

Valent Biosciences Corporation
 870 Technology Way, Suite 100
 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 under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA or the Act).

Registration is in no way to be construed as an endorsement or recommendation of this product by the U.S. Environmental Protection Agency (EPA). 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 the 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 product is unconditionally registered in accordance with FIFRA section 3(c)(5) provided that you:

1. Submit and/or cite all data required for registration or registration review of your product when the EPA requires all registrants of similar products to submit such data.
2. Submit storage stability and corrosion characteristics (Guidelines 830.6317 and 830.6320) data as these data requirements are not satisfied. A one-year study is required to satisfy these data requirements. You have 18 months from the date of this registration to provide these data to the EPA.

Signature of Approving Official:

Shannon Borges, Team Leader
 Microbial Pesticides Branch
 Biopesticides and Pollution Prevention Division (7511P)
 Office of Pesticide Programs

Date:

2/10/2015

3. Make the following labeling change before you release this product for shipment:
 - Revise the EPA Registration Number to read, "EPA Reg. No. 73049-502."
4. Submit one (1) copy of the final printed labeling for the record before you release this product for shipment.

Should you wish to add/retain a reference to your company's website on your label, then please be aware that the website becomes labeling under FIFRA and is subject to review by the EPA. If the website is false or misleading, the product will be considered to be misbranded and sale or distribution of the product is unlawful under FIFRA section 12(a)(1)(E). 40 CFR § 156.10(a)(5) lists examples of statements the EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the EPA find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA-approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance Assurance.

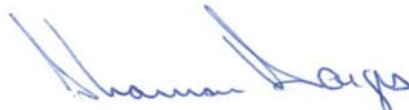
Your release for shipment of this product constitutes acceptance of these terms. If these terms are not complied with, this registration will be subject to cancellation in accordance with FIFRA section 6. A stamped copy of the labeling is enclosed for your records. Please also note that the record for this product currently contains the following acceptable Confidential Statement of Formula (CSF):

- Basic CSF dated 01/19/2015.

Any CSFs other than the one listed above are superseded.

If you have any questions, please contact Michael Glikes of my team by phone at (703) 305-6231 or via email at glikes.michael@epa.gov.

Sincerely,



Shannon Borges, Team Leader
Biopesticides and Pollution
Prevention Division (7511P)
Office of Pesticide Programs

Enclosure

ACCEPTED

02/10/2015

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 73049-502

**SYMPATICO
BIOLOGICAL INSECTICIDE
EMULSIFIABLE SUSPENSION**

BIOFUSED

Active Ingredient:

Bacillus thuringiensis, subsp. *kurstaki*, strain VBTS-2546, fermentation solids, spores, and insecticidal toxins..... 15.6%
Bacillus thuringiensis, subsp. *aizawai*, strain ABTS-1857, fermentation solids, spores and insecticidal toxins..... 10.4%
Other Ingredients.....74.0%
Total.....100.0%

**KEEP OUT OF REACH OF CHILDREN
CAUTION**

Manufactured For:
Valent BioSciences Corporation
870 Technology Way
Libertyville, IL 60048

EPA Registration No.: 73049-XXX
EPA Est. No.:

Batch Code: _____
Net Weight: _____

FIRST AID	
If on skin or clothing	<ul style="list-style-type: none">• Take off contaminate clothing.• Rinse skin immediately with plenty of water for 15 - 20 minutes.• Call a poison control center or doctor for treatment advice
If in eyes	<ul style="list-style-type: none">• Hold eyes 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.
HOTLINE NUMBER	
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.	
NOTE TO PHYSICIAN	
Contains petroleum distillate - vomiting may cause aspiration pneumonia.	

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

Harmful if absorbed through the skin. Avoid contact with skin, eyes, or clothing. 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

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category E on an EPA chemical resistance category selection chart.

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants.
- Chemical-resistant gloves, such as barrier laminate, or nitrile rubber, or neoprene rubber or viton.
- Shoes plus socks.

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.

Agricultural Use Requirements:

Mixers/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.

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 “mixers/loaders and applicators” and have such PPE immediately available for use in an emergency, such as a spill or equipment breakdown.

USER SAFETY RECOMMENDATIONS

Users 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.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

ENVIRONMENTAL HAZARDS

Do not apply directly to water, or to 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.

This product must not be applied aerially within ¼ mile of any habitats of endangered species 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 intervals. 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
- Chemical resistant gloves, such as barrier laminate or nitrile rubber or neoprene rubber or viton
- Shoes plus socks

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product 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 treated areas until sprays have dried.

MODE OF ACTION

After eating a lethal dose of VBC-60397, larvae stop feeding within the hour, and will die within several days. Dying larvae move slowly, discolor, then shrivel, blacken and die. Mortality varies with larval size (instar), Lepidoptera species, and dose consumed.

VBC-60397 may be used in either the field or greenhouse for the control of any labeled pest.

GENERAL INSTRUCTIONS

VBC-60397 is a highly selective 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-60397 to be affected. Always follow these directions:

- Treat when larvae are young (early instars) and before economic thresholds of damage have been exceeded.
- Larvae must be actively feeding on treated, exposed plant parts.
- Thorough spray coverage is needed to provide a uniform deposit of VBC-60397 at the site of larvae feeding. Use overhead and/or drop nozzles to obtain good spray coverage on both sides of the foliage. Use sufficient spray volume to insure uniform deposition on all plant surfaces.
- Under heavy pest population pressure, use the higher label rates, shorten the spray interval, and/or increase spray volume to improve coverage.
- Tank mixes with a contact insecticide have been known to enhance control..
- Repeat applications at an interval sufficient to maintain control, usually 3 to 14 days depending on plant growth rate, moth activity, rainfall after treatment, and other factors. If attempting to control a pest with a single application, make the treatment when egg hatch is essentially complete, but before economic crop damage occurs.
- A spreader-sticker or surfactant which has been approved for use on growing and harvested crops can be added for hard-to-wet crops. (Not recommended for chemigation). Use only adjuvant products labeled for agriculture and follow the manufacturer's directions. Conduct a premix test for compatibility. Note: addition of spreader stickers can cause browning at the leaf margins, or where material pools, especially on young plants. Test material on a plant before full scale use if there is concern about phytotoxicity.
- VBC-60397 is a non-restricted use pesticide and does not require a restricted use permit for purchase or use.
- VBC-60397 may be tank mixed with other labeled insecticides to enhance control. Use of the resulting tank mix must be in accordance with the more restrictive label limitations and precautions. No dosage rates should be exceeded. This product cannot be mixed with any product containing a label prohibition against such mixing. Before tank mixing VBC-60397 with other labeled products, including spreader stickers, check for tank mix compatibility.

GROUND, AERIAL, AND CHEMIGATION APPLICATIONS

VBC-60397 is applied through ground, aerial equipment, or sprinkler irrigation (except in California) systems, with quantities of water sufficient to provide thorough coverage of infested plant parts. The amount of water needed per acre will depend on crop development, weather, application equipment, and local experience.

Do not spray when wind speed favors drift beyond the area intended for use.

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

Mixing Recommendations: Important - do not add VBC-60397 to the mix tank before introducing the desired quantity of water. Start the mechanical or hydraulic agitation to provide moderate circulation before adding VBC-60397. Add the desired volume of VBC-60397 to the mix tank and continue circulation. Include rinse water from the container. Maintain the suspension while loading and spraying. Do not mix more VBC-60397 than can be used in a 2-day period. Rinse and flush spray equipment thoroughly following each use. Selection of fluid to flush the application system will depend on what type of mixture was used during the application period. Use a strainer no finer than 50 mesh in conventional spray systems.

CAUTION:

VBC-60397 should not be used in combination with Comite[®], Bravo[®], Captafol, Captan (except seed) or Dyrene[®].

Spray Volume Recommendations: For conventional aerial applications use at least 3 gallons of total volume per acre in water based sprays, except in the Western U.S. where 5 to 10 gallons is the usual minimum. For ground application, use at least 5 gallons of volume per acre. For Ultra Low Volume (ULV) aerial applications, mix VBC-60397 with vegetable or cottonseed oil and apply in a total volume of 1.0 - 2.25 quarts per acre or apply undiluted.

Mixing Recommendations: VBC-60397 is injected in the undiluted product form (neat) or diluted with water. Follow general mixing recommendations and keep the ratio at 3 parts water to 1 part VBC-60397. Provide mild agitation of the diluted mixture throughout the chemigation cycle. DO NOT AGITATE EXCESSIVELY. For undiluted injection for chemigation make sure tank and injection system are free of all residual water. Flush and clean nurse tank, lines, screen canister, and pump with diesel fuel or a non-emulsifiable oil until they are water-free before and after application. Use a 20-mesh screen. Continue agitation during injection.

Chemigation Instructions (all states except California):

Apply this product only through sprinkler systems such as center pivot, lateral move, end tow, side (wheel) roll, traveler, solid set, or hand move. Do not apply this product through any other type of irrigation system. Use irrigation levels of 0.15 to 0.5 inches of water per acre. Up to 1 inch of irrigation water may be used, but efficacy may be reduced.

For all crops except cranberry, application of VBC-60397 may be made continuously during irrigation. For cranberry, apply during the end of the irrigation period, after it is determined that the heads are operating properly for 8-20 minutes depending on the size of the system.

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.

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.

The active ingredient in VBC-60397 may settle in the tank and injection lines. Adequate agitation must be provided before and during the injection period. Use only in systems that apply product uniformly and have appropriate check valves. Do not apply where wind speed favors drift beyond the area intended for treatment.

When application is complete, thoroughly flush the injection system and sprinkler lines.

The system must contain a functional check valve, vacuum relief valve, and low 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.

A. Public Water Systems

Public water system means a system for the provision to the public of piped water for human consumption that has at least 15 service connections or regularly serves an average of at least 25 individuals daily for at least 60 days out of the year.

Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.

B. Sprinkler Chemigation

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 a system interlock. Do not apply when wind speed favors drift beyond the area intended for treatment.

Pests controlled by VBC-60397

Common name	Scientific name
Achema Sphinx Moth (Hornworm)	<i>Eumorpha achemon</i>
Alfalfa Caterpillar	<i>Colias eurytheme</i>
Almond Moth	<i>Caudra cautella</i>
Amorbia Moth	<i>Amorbia humerosana</i>
Armyworm	<i>Spodoptera spp., e.g. exigua, frugiperda, littoralis, Pseudaletia unipuncta</i>
Artichoke plume moth	<i>Platyptilia carduidactyla</i>
Azalea Caterpillar	<i>Datana major</i>
Bagworm	<i>Thyridopteryx ephemeraeformis</i>
Banana Moth	<i>Hypercompe scribonia</i>
Banana Skipper	<i>Erionota thrax</i>
Blackheaded Budworm	<i>Acleris gloverana</i>
Blossom Worm	<i>Epiglae apiata</i>
California Oakworm	<i>Phryganidia californica</i>
Cankerworm	<i>Paleacrita merriccata</i>
Cherry Fruitworm	<i>Grapholita packardi</i>
China Mark Moth	<i>Nymphula stagnata</i>
Citrus Cutworm	<i>Xylomyges curialis</i>
Codling Moth	<i>Cydia pomonella</i>
Cotton Bollworm	<i>Helicoverpa zea</i>
Cranberry Fruitworm	<i>Acrobasis vaccinii</i>
Cross-striped Cabbageworm	<i>Evergestis rimosalis</i>
Cutworm	<i>Various Noctuid species, e.g. Agrotis ipsilon</i>
Diamondback Moth	<i>Plutella xylostella</i>
Douglas Fir Tussock Moth	<i>Orgyia pseudotsugata</i>
Ello Moth (Hornworm)	<i>Erinnyis ello</i>
Elm Spanworm	<i>Ennomos subsignaria</i>
European Corn Borer	<i>Ostrinia nubilalis</i>
European Grapevine Moth	<i>Lobesia botrana</i>
European Skipper (Essex Skipper)	<i>Thymelicus lineola</i>
Fall Webworm	<i>Melissopus latiferreanus</i>

Common name	Scientific name
Filbert Leafroller	<i>Archips rosanus</i>
Fireworm	<i>Rhopobota naevana</i>
Fruittree Leafroller	<i>Archips argyrospilia</i>
Grape Berry Moth	<i>Paralobesia viteana</i>
Grape Leafroller	<i>Platynota stultana</i>
Grapeleaf Skeletonizer (ground only)	<i>Harrisina americana</i>
Grass Looper	<i>Mocus latipes</i>
Green Cloverworm	<i>Plathypena scabra</i>
Greenstriped Mapleworm	<i>Dryocampa rubicunda</i>
Gypsy Moth	<i>Lymantria dispar</i>
Hagmoth	<i>Phobetron pithecium</i>
Headworm	<i>Helicoverpa zea</i>
Hemlock Looper	<i>Lambdina fiscellaria</i>
Hornworm	<i>Manduca spp.</i>
Imported Cabbageworm	<i>Pieris rapae</i>
Indian Meal Moth	<i>Plodia interpunctella</i>
Io Moth	<i>Automeris io</i>
Jack Pine Budworm	<i>Choristoneura pinus</i>
Light brown apple moth	<i>Epiphyas postvittana</i>
Looper	<i>Various Noctuidae, e.g. Trichoplusia ni</i>
Melonworm	<i>Diaphania hyalinata</i>
Mimosa Webworm	<i>Homadaula anisocentra</i>
Obliquebanded Leafroller	<i>Choristoneura rosaceana</i>
Oleander Moth	<i>Syntomeida epilais</i>
Omnivorous Leafroller	<i>Platynota stultana</i>
Omnivorous Looper	<i>Sabulodes aegrotata</i>
Orangedog	<i>Papilio cressphontes</i>
Orange Tortrix	<i>Argyrotaenia citrana</i>
Oriental Fruit Moth	<i>Grapholita molesta</i>
Owleye Moth	<i>Anthera polyphemus</i>
Peach twig borer	<i>Anarsia lineatella</i>
Pecan Nut Casebearer	<i>Acrobasis nuxvorella</i>
Pine Butterfly	<i>Neophasia menapia</i>
Podworm	<i>Heliocoverpa zea</i>
Range Caterpillar	<i>Hemileuca oliviae</i>
Redbanded Leafroller	<i>Argyrotaenia velutinana</i>
Redhumped Caterpillar	<i>Schizura concinna</i>
Rindworm complex	<i>Various leps.</i>
Saddleback Caterpillar	<i>Sibine stimulea</i>
Saddle Prominent Caterpillar	<i>Heterocampa guttivitta</i>
Saltmarsh Caterpillar	<i>Estigmene acrea</i>
Sod Webworm	<i>Crambus spp.</i>
Soybean Looper	<i>Pseudoplusia includens</i>
Spanworm	<i>Ennomos subsignaria</i>
Sparganothis Fruitworm	<i>Sparganothis sulfureana</i>
Spring and Fall Cankerworm	<i>Paleacrita vernata and Alsophila pometaria</i>
Spruce budworm	<i>Choristoneura fumiferana</i>
Tent Caterpillar	<i>Various Lasiocampidae</i>

Common name	Scientific name
Thecla-Thecla Basilides (Geyr)	<i>Thecla basilides</i>
Tobacco Budworm	<i>Heliothis virescens</i>
Tobacco Hornworm	<i>Manduca sexta</i>
Tobacco Moth	<i>Ephestia elutella</i>
Tomato Fruitworm	<i>Helicoverpa zea</i>
Tufted Apple Budmoth	<i>Platynota idaeusalis</i>
Twig Borer	<i>Anarsia lineatella</i>
Vaquita	<i>Oisphanes sp.</i>
Variegated Cutworm	<i>Peridroma saucia</i>
Variegated Leafroller	<i>Platynota flavedana</i>
Velvetbean Caterpillar	<i>Anticarsia gemmatalis</i>
Walnut Caterpillar	<i>Datana integerrima</i>
Webworm	<i>Hyphantria cunea</i>
Western Tussock Moth	<i>Orgyia vetusta</i>
Southern cornstalk borer	<i>Diatraea crambidoides</i>
Sugarcane borer	<i>Diatraea saccharalis</i>
Corn earworm, cotton bollworm, tomato fruitworm	<i>Helicoverpa zea</i>
Tobacco budworm	<i>Heliothis virescens</i>

Use of VBC-60397 on Field Corn, Seed Corn, Sweet Corn, Silage Corn or Popcorn

VBC-60397 for Corn

Crop	Pest	Pints/Acre (Ground Equipment ¹)	Pints/Acre (Chemigation)	Pints/Acre (Aerial Application)
Corn: Field Corn Seed Corn Sweet Corn Popcorn Silage Corn	European Corn Borer ² and Southwestern Corn Borer (First generation population)	1.5 - 2.5	1.5 - 2.5	-----
	European Corn Borer and Southwestern Corn Borer (Second generation population)	1.5 - 2.5	1.5 - 2.5	1.5 - 2.5
	Corn Earworm ⁴ Variegated Cutworm Webworms Armyworms ³ Western ³ Bean Cutworm	2.0 - 4.0 1.5 - 2.5 1.5 - 2.5 2.0 - 4.0 1.5 - 2.5	----	2.0 - 4.0 1.5 - 2.5 1.5 - 2.5 2.0 - 4.0 1.5 - 2.5

¹Apply in 6 to 8 inch band directly over whorls. Refer to table below for over the row rates.

FLUID OUNCES APPLIED PER 1000 ROW FEET

Row Width	Label rate/A	
	1.5 pts.	2.5 pts
30	1.4 oz/1000 ft	2.3 oz/1000 ft
32	1.5 oz/1000 ft	2.5 oz/1000 ft
36	1.7 oz/1000 ft	2.8 oz/1000 ft

Timing of Application:

A. ²Corn Borer

Application should be made when young larvae are present for first or second generation corn borers. One application against the first generation of larvae should provide economic control. Two or more application may be required against second generation borers if there is an extended period of egg deposition.

First Generation:

VBC-60397 should be applied on seed corn when no more than 15% to 25% of the corn plants show "shot hole" feeding in the whorls.

With irrigated or sweet corn, apply VBC-60397 when not more than 25% to 35% of the whorls show feeding signs.

With dryland corn, apply VBC-60397 when not more than 35% to 40% of the leaves show "shot hole" feeding signs.

Second Generation:

Apply VBC-60397 when the field count shows not more than 50 egg masses per 100 plants and the first hatch is taking place. If worm pressures are intense, a second application may be necessary.

Cool weather may cause corn borer larvae to seek protected areas of the corn plant and to reduce the amount of feeding normally done on exposed plant parts. This alteration in feeding behavior will hamper the effectiveness of VBC-60397.

Contact State and Local Extension Service for specific economic threshold and application recommendations.

B. ³Armyworm and Western Bean Cutworm

For control of armyworm, treat when plants first exhibit feeding signs in the whorl or leaves. Multiple applications at approximately 3-5 day intervals may be necessary when populations are heavy. High-spray gallonage (50 to 75 gallons per acre) will improve coverage and control. VBC-60397 may be used to control small armyworms and the Western Bean Cutworm (1st and 2nd instar) when populations are light and full coverage sprays are applied. Repeat treatments as necessary. If mature worms or heavy populations are present a contact insecticide should be used to enhance control.

C. ⁴Corn Earworm

Treat every 1 to 3 days or at wider intervals depending on pest pressure, temperature and geographical location. Begin treatments when 5 percent of the upper ears show silk. When populations are heavy, treat when first silk is seen and every 1-3 days thereafter until harvest.

TANK MIX DIRECTIONS FOR CONTROL OF CORN PESTS

VBC-60397 can be mixed with esfenvalerte (1.9EC), permethrin (25W, 3.2EC, 25WP), methomyl (90% water soluble powder, 24% liquid, 29% liquid) or methyl parathion (microencapsulated 2 lbs/gallon) for use on sweet corn against armyworms and corn earworm in accordance with the more restrictive label limitations and precautions. No label dosage rates should be exceeded.

Crop	Pest	Pints/Acre (Ground and Aerial Applications)
Sweet Corn and Field Corn	Corn Earworm	0.75 ⁵ - 4.0 ⁵
	Armyworms ³	0.75 ⁵ - 4.0 ⁵

(⁵Tank Mix Only)

VBC-60397 FOR COTTON

EARLY SEASON PROGRAM

Pre-squaring stage:

VBC-60397 may be used for early season management of *Helicoverpa zea* and *Heliothis virescens* under conditions of continuous low egg deposition. Use VBC-60397 alone at 0.5 pint/acre or in combination with a recommended ovicide, boll weevil sprays, or Pix applications. When egg pressure is moderate to high VBC-60397 should be tank mixed with an ovicide. A spray interval of 5-7 days is recommended for a total of 3 applications, if necessary, especially if continued egg pressure occurs during this period.

Pre-bloom stage:

For control of light to moderate populations, use VBC-60397 at 0.75 to 2.0 pints/acre in combination with an ovicide such as LARVIN (thiodicarb). Repeat treatments at 4 to 5 day intervals or as long as necessary to maintain control. Applications should be directed at brown eggs and newly hatched larvae. Larvae should not exceed 2,500 per acre (approximately 4 percent of plants infested) before treatments are initiated. Close scouting is essential for well timed applications.

MID SEASON PROGRAM

Pre-bloom to first mature boll stage:

Use VBC-60397 at 0.75 to 4.0 pints/acre in combination with 1/2 to 2/3 rate of a recommended synthetic pyrethroid during midseason. Use the lower rates under moderate pressure and increase rates if necessary to maintain control.

LATE SEASON PROGRAM

Mature bloom boll stage:

Use VBC-60397 at 0.75 to 6.0 pints/acre in combination with recommended pyrethroid, carbamate or organophosphate insecticides. This product will aid in controlling worms escaping from organophosphate and pyrethroid insecticides.

VBC-60397 can be mixed with other insecticides in accordance with the more restrictive label limitations and precautions. This product cannot be mixed with any other product having a label which prohibits such mixing.

Spray Volumes:

For aerial applications, use a minimum of 2 gallons of total volume per acre in water based sprays except in the western U.S. where 5 to 10 gallons is the usual minimum. For ground applications, use at least 5 gallons of total volume per acre with 3 nozzles per row. For banded applications, use a minimum of 2 nozzles per row with ground sprayer or cultivator. Rates should not be less than 0.5 pint/acre on a broadcast basis. For ULV applications, mix 1 to 2 pints VBC-60397 with 1 to 2.5 pints vegetable or cottonseed oil and apply in a total volume of 1.0 - 2.25 quarts per acre. Adjust the spray system to deliver a fine droplet spectrum. Generally, rotary atomizers produce a finer droplet spectrum for ULV applications.

Crop	Pest	Pints/Acre (Ground, Aerial, and Chemigation Applications)
Cotton	Tobacco Budworm ⁶	1.0 - 6.0
	Cotton Bollworm ⁶	1.0 - 6.0
	Armyworms ⁵	2.0 - 6.0
	Looper	1.0 - 6.0
	Saltmarsh Caterpillar	1.0 - 4.0

Timing of Applications:

A. Armyworm

⁵VBC-60397 may be used to control small armyworms (1st and 2nd instar) when populations are light and full coverage sprays are applied. Repeat treatments as necessary. If mature worms or heavy populations are present a contact insecticide should be used to enhance control.

B. Tobacco Budworm

⁶Use VBC-60397 to control light to moderate populations of newly hatched worms in pest management programs. Use under close scouting when beneficial insects are active or building. Repeat treatments at 4 to 5 day intervals or as long as necessary and results are acceptable. VBC-60397 can be mixed with Larvin for use on cotton against tobacco budworm and cotton bollworm in accordance with the more restrictive of label limitations and precautions. No label dosage rates should be exceeded. This product cannot be mixed with any product containing a label prohibition against such mixing. VBC-60397 may be used alone for *Helicoverpa zea* and

Heliothis virescens control only on preblossoming cotton where few or no eggs are present. If significant eggs are present, use only in combination with ovicidal rates of Larvin. Larvin is a registered trademark of Bayer CropScience.

VBC-60397 FOR PEANUTS

Crop	Pest	Pints/Acre (Ground, Aerial and Chemigation Applications)
Peanut	Green Cloverworm	1.0 - 2.0
	Looper	1.0 - 2.0
	Podworm ⁷	1.0 - 4.0
	Armyworms ⁷	2.0 - 4.0
	Velvetbean Caterpillar	1.0 - 2.0

Timing of Application

⁷Podworm and Armyworm

This product may be used to control podworm and armyworms when populations are light to moderate and good spray coverage can be achieved. Use VBC-60397 at 1.0 to 4.0 pints/acre (2 to 4 pints per acre for armyworm) when small larvae first appear. Applications should be made to coincide with egg lay and early instar larvae. Under conditions of higher pressure and rapid plant development, the addition of a contact insecticide, such as a pyrethroid, in combination with VBC-60397 is recommended. Treatments should be repeated as necessary to maintain acceptable control.

VBC-60397 FOR ALFALFA, HAY AND OTHER FORAGE CROPS

Crop	Pest	Pints/Acre (Ground, Aerial and Chemigation Applications)
<p>Alfalfa (Hay and Seed)</p> <p>Grass Forage, Fodder, and Hay (Crop group 17)⁸ including: Any grass, Gramineae family (either green or cured) except sugarcane and those included in the cereal grains group, that will be fed to or grazed by livestock, all pasture and range grasses and grasses grown for hay or silage</p>	<p>Armyworms⁹ Looper</p> <p>Alfalfa Caterpillar European Skipper Webworm Range Caterpillar</p>	<p>2.0 - 4.0 1.0 - 2.0</p> <p>1.0 - 2.0 1.0 - 2.0 1.0 - 2.0 0.5-1.0 (use in 1-2 qts. water per acre against 1st-4th instar larvae.)</p>

⁸**For Use in California** - See the California Crops Section on this Label.

Application Timing:

Armyworm

⁹This product may be used to control small armyworms (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 a contact insecticide should be used to enhance control.

VBC-60397 FOR SUNFLOWERS

Crop	Pest	Pints/Acre (Ground, Aerial and Chemigation Applications)
Sunflower:	Sunflower Moth ¹⁰	1.5 - 2.5
Oil Seed and Confectionery	Banded Sunflower Moth ¹⁰	1.5 - 2.5

Application Timing:

¹⁰For moderate pest pressure make a single application prior to 75% bloom. A second application, 5 days later, may be necessary to control severe infestations. Treat when larvae are exposed and small.

In Texas, begin treatment when early-instar larvae are present and no more than 20% of the heads are in bloom. Use a spray interval of 4-6 days for a total of 3 applications, if necessary, to reduce the worm population to an acceptable level, especially if continued egg deposition occurs during the period.

APPLICATION RATE

Field Crops	Application rate (Pints/Acre)
Vegetables, root and tuber (Crop Group 1) 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; tanier; turmeric; turnip; yam bean; yam, true.	1.0-4.0 VBC-60397 may be used to control small armyworms when populations are light and full coverage sprays are applied.

Field Crops	Application rate (Pints/Acre)
<p>Vegetable, bulb (Crop Group 3-07) 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>1.0-4.0</p> <p>Use 2-4 pints/acre for control of <i>Helicoverpa</i>.</p>
<p>Vegetable, leafy, except brassica (Crop Group 4) 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>1.0-4.0</p> <p>VBC-60397 may be used to control small armyworms when populations are light and full coverage sprays are applied.</p> <p>Do not apply by air to plants after transplant or other stress before 6 weeks in the field. Use more than 25 gallons of water per acre by ground and 5 gallons of water per acre by air. Do not mix VBC-60397 with Bravo, Captan or other fungicides that are not compatible with spray oils.</p>
<p>Vegetable, brassica leafy (Crop Group 5) 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>1.0-4.0</p> <p>Use 1.0-2.0 pints/acre for looper control and 2.0-4.0 pints/acre for <i>Heliothis</i> and <i>Spodoptera</i> spp. control depending on larval stage and infestation levels.</p> <p>Do not apply by air to plants after transplant or other stress before 6 weeks in the field. Use more than 25 gallons of water per acre by ground and 5 gallons of water per acre by air. Do not mix VBC-60397 with Bravo, Captan or other fungicides that are not compatible with spray oils.</p>

Field Crops	Application rate (Pints/Acre)
<p>Vegetable, legume (succulent or dried) (Crop Group 6) 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>1.0-4.0</p> <p>VBC-60397 may be used to control small armyworms and podworms when populations are light and full coverage sprays are applied.</p> <p>Monitor insects and apply at more frequent intervals (3-5 days) for heavy populations to maintain control.</p> <p>Can be used in tank mix applications with conventional insecticides such as pyrethroid. For VBC-60397 plus pyrethroid use 1-2 pints/acre VBC-60397 and a labelled use rate of pyrethroid. Refer to pyrethroid label for additional insects controlled.</p>
<p>Vegetable, fruiting (Crop Group 8-10) 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>1.0-4.0</p> <p>VBC-60397 may be used to control small armyworms and podworms when populations are light and full coverage sprays are applied.</p> <p>Apply weekly in a preventative program for <i>Heliothis</i> control.</p>
<p>Vegetable, cucurbit (Crop Group 9) 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>1.0-2.0</p>

Field Crops	Application rate (Pints/Acre)
<p>Fruit, citrus (Crop Group 10-10) 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; trifoliate orange; uniq fruit; cultivars, varieties, and/or hybrid of these.</p>	<p>1.0-4.0</p> <p>Apply to light to moderate populations of newly-hatched citrus cutworm larvae.</p> <p>Use sufficient volume of water to ensure good canopy coverage and penetration.</p>
<p>Fruit, pome (Crop Group 11-10) 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>1.0-4.0</p> <p>Scout orchards and apply when insects are hatching or small. For insect borers (e.g. codling moth) it is important to apply before the insect bores into the fruit. For leaf rollers, it is important to apply before leaves are rolled and insects are protected.</p>
<p>Fruit, stone (Crop Group 12) Including: Apricot; cherry, sweet; cherry, tart; nectarine; peach; plum; plum, Chickasaw; plum, Damson; plum, Japanese; plumcot; prune (fresh).</p>	<p>1.0-4.0</p> <p>Scout orchards and apply when insects are hatching or are small, are actively feeding on leaf surfaces, and before they enter fruit or roll leaves</p>

Field Crops	Application rate (Pints/Acre)
<p>Berry and small fruit group (Crop Group 13-07) 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, evergreen 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>1.0-4.0</p> <p>Treat when larvae are young and before economic thresholds of damage have been exceeded. If hatch occurs over an extended period of time, multiple applications should be considered. Use higher rates when pest pressure is heavy and/or older larvae are present. Tank mixes of VBC-60397 plus a low rate of a contact insecticide registered for use on small fruit and berries may enhance control of heavy populations and large larvae.</p> <p>For armyworm (<i>Spodoptera</i> spp.) and cutworm (e.g. <i>Agrotis ipsilon</i>), use the higher rate range. Ensure good coverage for optimal control</p>
<p>Nut, tree (Crop Group 14) Including: Almond; beech nut; Brazil nut; butternut; cashew; chestnut; chinquapin; filbert (hazelnut); hicory nut; macadamia nut; pecan; walnut, black and English.</p>	<p>1.0-4.0</p> <p>See note under California Crops (Peach Twig Borer and Navel Orangeworm)</p>
<p>Grain, cereal (Crop Group 15) Including: Barley; buckwheat; corn; millet, pearl; millet, proso; oats; popcorn; rice; rye; sorgum (milo); teosinte; wheat; wild rice.</p>	<p>1.0-4.0</p> <p>For corn, see specific recommendations in this label.</p>

Field Crops	Application rate (Pints/Acre)
Herbs and spices (Crop Group 19) Including: 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.	1.0-2.0.
Artichoke	1.0-4.0
Asparagus	1.0-4.0
Avocado	1.0-4.0 Use a minimum of 200 gallons water per acre by ground rig or 10 gallons by aircraft. Apply at or soon after egg hatch when insects are small.
Banana	1.0-4.0 Ensure good coverage to all foliage.
Coffee	1.0-4.0
Fruit, tropical	0.5-2. Monitor populations and apply when insects are small and before they roll and web leaves in leaf rolling species.
Hop	1.0-4.0 Use 2-4 pints/acre when insect populations are high or when <i>Spodoptera</i> is the dominant pest.

Field Crops	Application rate (Pints/Acre)
Kiwi fruit	1.0-4.0 Apply at hatch or when small insects are actively feeding. Monitor population and apply at 5-7 day intervals.
Malanga	1.0-4.0
Mint and peppermint	1.0-4.0 Use 2-4 pints/acre for control of <i>Spodoptera</i> spp.
Pineapple	0.5-1.0 Apply when insects are small before they damage fruit. Thorough coverage is required to get to the base of the fruit.
Pomegranate	1.0-4.0
Rape (Canola)	1.0-4.0
Safflower	1.0-4.0
Sugarcane	1.0-4.0 For sugarcane borer control, best used with parasitic wasps. Apply when insects are actively feeding on foliage and before they bore into the plant.
Tobacco	0.5-2.0 Lower rates for tobacco hornworm, higher rates for looper and tobacco budworm.

Crops	Application rate (pints/acre)
GREENHOUSE/SHADEHOUSE AND OUTDOOR NURSERY	
Crops including but not limited to: Vegetable, leafy, except brassica (Crop group 4), Vegetable, brassica leafy, (Crop group 5), Vegetable, fruiting, (Crop group 8), Herbs and spices (Crop group 19)	<p style="text-align: center;">1.0-4.0</p> Use higher rates for <i>Heliothis</i> spp.

VBC-60397 FOR TREES AND SHRUBS

(All states except California)

Crop	Pest	Oz./100 Gal./A. ¹¹ (Ground Equipment)	Oz./Acre (Aerial ¹² Application)
Forest, Shade, Sugar Maple, Trees & Shrubs	Bagworm	8 to 32	8 to 32
	Blackheaded Budworm	16 to 32	16 to 32
	Browntail Moth	16 to 60	16 to 60
	Buck Moth	16 to 80	16 to 80
	California Oakworm	8 to 32	8 to 32
	Douglas Fir Tussock Moth	16 to 60	16 to 60
	Eastern Pine Looper	24 to 48	24 to 48
	Eastern Tent Caterpillar	8 to 32	8 to 32
	Elm Spanworm	8 to 32	8 to 32
	Fall Webworm	8 to 32	8 to 32
	Forest Tent Caterpillar	16 to 32	16 to 32
	Green Striped Maple Worm	16 to 32	16 to 32
	Gypsy Moth ¹³	16 to 80	16 to 80
	Hemlock Looper	24 to 48	24 to 48
	Jack Pine Budworm ¹³	16 to 32	16 to 32
	Leafrollers	16 to 32	16 to 32
	Mimosa Webworm	8 to 16	--
	Oak Leaf-tier	16 to 32	16 to 32
	Oak Skeletonizer	16 to 32	16 to 32
	Pine Butterfly	16 to 32	16 to 32
	Redhumped Caterpillar	8 to 32	8 to 32
	Saddleback Caterpillar	8 to 32	--
	Saddled Prominent Caterpillar	8 to 32	8 to 32
	Spring & Fall Cankerworm	8 to 32	8 to 32
	Spruce Budworms ¹³	16 to 60	16 to 60
	Tortrix	16 to 32	16 to 32
Western Tussock Moth	8 to 32	8 to 32	

¹¹ Water dilution rate for hydraulic sprayer may be varied depending on coverage. For mist blowers, mix the applicable amount (oz.) in up to 10 gallons of water.

¹² For aerial application, use in up to 10 gallons of water depending on type and density of trees. For best results spray systems which deliver droplet VMD (Volume Median Diameter) of 150 microns or less should be used. VBC-60397 should always be mixed with at least an equal amount of water for diluted applications. Note: For Hemlock Looper and Eastern Pine Looper use 1-2 applications, undiluted, beginning at peak first instar. When applying two applications, apply each application at a recommended rate of 24 ounces/A. First application is applied at peak first instar and second application is at second instar. For the high rate, i.e. 48 ounces/A, apply single application only at peak first instar.

¹³ Use rates greater than 16 ounces in northern state for heavy populations. This product may be sprayed undiluted for the control of Spruce Budworm, Jack Pine Budworm and Gypsy Moth.

-60397 FOR STORED AGRICULTURAL COMMODITIES

(All states except California)

Crop	Pest	Product Rate
Stored agricultural commodities - grains, soybeans, sunflower seed, crop seed, condimental seeds, spices, herbs, birdseed and popcorn.	Indian Meal Moth, (<i>Plodia interpunctella</i>) Almond Moth	¾ pts/100 bu undiluted or diluted

VBC-60397 is compatible with common seed treatments including Captan, Methoxychlor, Carboxin (Vitavax) and Malathion. Fumigation has not been found to decrease the effectiveness of VBC-60397.

For the protection of bagged grain including birdseed, apply the dosage to the entire grain mass and **mix thoroughly** prior to bagging.

As a surface treatment, apply 15 fl oz of VBC-60397 in 5-10 gallons of water per 500 sq. ft. of grain surface area and mix into the top 4 inches. For commodities coarser than shelled corn, increase depth of treatment according to habit of the pest.

To auger into the bin, apply the dosage into the grain stream as the last (top) four inch layer is augered into the bin. Mix 1.45 fl oz. VBC-60397 per gallon of water. Apply 0.6 pint of this mixture per bushel.

This treatment controls the moth larvae. If an infestation is present when the grain is treated, moth emergence may continue for several days. If immediate control of severe infestations is desired, grain should be fumigated prior to application of this treatment. VBC-60397 will not control weevils or other beetles. Treatments can be applied to stored grain at any time, but for best results, make application immediately after harvest before moth activity occurs. In areas where late fall harvested grain is not subject to infestation because of low temperatures, application can be delayed until late winter or early spring before moth activity begins. Control for a full storage season should normally be expected, however repeat application if infestation recurs.

Grain treated with VBC-60397 can be used at any time after treatment for any use.

CALIFORNIA CROPS

Crop	Pest	Pints/Acre (Ground and Aerial Applications)
Citrus	Citrus Cutworm ¹⁴	1.0 - 4.0
	Fruitree Leafroller	1.0 - 4.0
	Orangedog	0.5 - 2.0

Crop	Pest	Pints/Acre (Ground and Aerial Applications)
Cotton ¹⁵	Armyworms ²⁴	2.0 - 4.0
	Looper	1.0

Crop	Pest	Pints/Acre (Ground and Aerial Applications)
Alfalfa (Hay and Seed) Hay and Other Forage Crops	Armyworms ¹⁶	2.0 - 4.0
	Alfalfa Caterpillar	1.0 - 2.0
Root and Tuber such as, Sugar Beet, Carrot, and Potato	Armyworms ¹⁶	2.0 - 4.0

Crop	Pest	Pints/Acre (Ground and Aerial Applications)
Tree Nuts, such as Almond, Pecan , Walnut and Filbert	Peach Twig Borer ¹⁷	2.0 - 4.0
	Navel Orangeworm ¹⁸	2.0 - 4.0
Stone Fruit, such as Cherry, Plum Peach, Prune and Nectarine	Peach Twig Borer ¹⁷	2.0 - 4.0

¹⁴ Apply to light to moderate populations of newly hatched larvae.

¹⁵ See the Cotton Section of this Label for Further Use Directions

¹⁶ This product may be used to control small armyworms (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 a contact insecticide should be used to enhance control.

Application Timing:

- 17 Make two applications during bloom for control of over wintering larvae; the first between popcorn and the beginning of bloom and the second seven to ten days later, but no later than petal fall. Spring sprays (the May spray) directed against first generation larvae should be determined by the use of pheromone traps and degree-day calculations.

Control of second generation larvae requires critical timing and should begin at 12% hull split in almonds and prior to fruit entry in other crops.

- 18 Applications may be directed against the spring-hatched larvae by timing based on monitoring of egg traps. Hull split sprays should include two applications: The first at the initiation of hull split or initiation of egg laying following hull split, and the second seven to ten days later.

For Small Spray Volumes:

If Rate Is:

Use This Amount Per Gallon

1/2 pt./acre or 100 gals.

1/2 tsp.

1 pt./acre or 100 gals

1 tsp.

2 pts./acre or 100 gals.

2 tsps.

4 pts./acre or 100 gals.

4 tsps.

STORAGE AND DISPOSAL

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

Storage: Keep containers tightly closed when not in use. Do not store at temperatures greater than 100° F. Roll or shake the container before dispensing.

Pesticide Disposal: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Do not contaminate water when disposing of equipment washwaters.

Container Disposal: Nonrefillable container. Do not reuse this container.

Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Once cleaned, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or manufacturer, or contact Ag Container Recycling Council at 202-861-3144 or www.acrecycle.org. If recycling is not available puncture and dispose of the container in a sanitary landfill, or by other procedures approved by state and local authorities.

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 this label. To the extent consistent with applicable law, User assumes all risks of use, storage or handling not in accordance with accompanying directions.

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