

#### U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs
Registration Division (7505P)
1200 Pennsylvania Ave., N.W.
Washington, D.C. 20460

89118-2

Date of Issuance:

12/10/15

Term of Issuance:

**EPA Reg. Number:** 

Conditional

Name of Pesticide Product:

VCP-03 1.75 SC Insecticide

NOTICE OF PESTICIDE:

X Registration
Reregistration
(under FIFRA, as amended)

Name and Address of Registrant (include ZIP Code):

Olav Messerschmidt Vive Crop Protection, Inc. 700 Bay St., Suite 1100 Toronto, Ontario, Canada

**Note:** Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration 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.

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 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 product is conditionally registered in accordance with FIFRA section 3(c)(7)(A). You must comply with the following conditions:

1. Please note a 2 year time limited registration (set to expire 12/10/2017) has been issued due to confirmatory data which is required as a condition of registration specific to EPA Registration No. 89118-2.

 ${\bf Signature\ of\ Approving\ Official:}$ 

Date:

12/10/15

Kable Bo Davis, Product Manager 3 Invertebrate & Vertebrate Branch 1 Registration Division (7505P)

EPA Form 8570-6

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- 2. Submit and/or cite all data required for registration/registration/registration review of your product under FIFRA when the Agency requires all registrants of similar products to submit such data.
- 3. You are required to comply with the data requirements described in the DCI identified below:

a. Bifenthrin: GDCI-128825-902 GDCI -128825-1114 GDCI -128825-1158 GDCI -128825-1159

You must comply with all of the data requirements within the established deadlines. If you have questions about the Generic DCI listed above, you may contact the Chemical Review Manager in the Pesticide Reevaluation Division: <a href="http://www.epa.gov/oppsrrd1/contacts\_prd.htm">http://www.epa.gov/oppsrrd1/contacts\_prd.htm</a>

- 4. You are required to submit to the Agency a Batch Equilibrium Study (Guideline 835.1230) or other study which demonstrates the rate of dissociation. A protocol must be submitted to the Agency prior to testing. The protocol must be submitted by June 10, 2016 and the final study must be submitted by March 10, 2017. Your failure to provide these data in a timely or adequate manner may result in initiation of cancellation action against your registration.
- 5. Submit one copy of the final printed label for the record before you release the product for shipment.

Should you wish to add a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements 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 Agency 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.

If you fail to satisfy these data requirements, EPA will consider appropriate regulatory action including, among other things, cancellation under FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records. Please also note that the record for this product currently contains the following CSFs:

- Basic CSF dated 05/28/2014
- Alternate CSF A dated 05/28/2014
- Alternate CSF B dated 05/28/2014
- Alternate CSF C dated 05/28/2014
- Alternate CSF D dated 05/28/2014

- Alternate CSF E dated 05/28/2014
- Alternate CSF F dated 05/28/2014
- Alternate CSF G dated 05/28/2014
- Alternate CSF H dated 05/28/2014
- Alternate CSF I dated 05/28/2014

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- Alternate CSF J dated 05/28/2014
- Alternate CSF K dated 05/28/2014

• Alternate CSF L dated 05/28/2014

If you have any questions, please contact Maggie Rudick by phone at 703-347-0257, or via email at <a href="mailto:rudick.maggie@epa.gov">rudick.maggie@epa.gov</a>.

Enclosure



# RESTRICTED USE PESTICIDE

TOXIC TO FISH AND AQUATIC ORGANISMS

For retail sale to and use only by certified applicators, or persons under their direct supervision and only for those uses covered by the Certified Applicators certification

# VCP-03™ 1.75 SC Insecticide

[Alternate Brand Name: Bifender™ FC Insecticide]

VCP-03\* is a versatile, broad-spectrum insecticide that can be mixed directly with liquid fertilizers for control of insect and mite pests on agricultural crops. It can be applied at plant, or as a foliar application.

Active Ingredient:	By Wt.
Bifenthrin:(2 methyl [1,1'-biphenyl] 3-yl) methyl 3-	•
(2-chloro-3,3,3-trifluoro-1-propenyl)-2,2-	
dimethyl-cyclopropanecarboxylate*	19.3%
Other Ingredients:	80.7%
	100.0%

<sup>\*</sup>Cis isomers 97% minimum, trans isomers 3% maximum. This product contains 1.75 pounds active ingredient per gallon.

# ACCEPTED

12/10/2015

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

89118-2

# KEEP OUT OF REACH OF CHILDREN WARNING

**AVISC** 

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it you in detail.)

This label must be in the possession of the user at the time of application. See inside booklet for additional precautionary information.

EPA Reg. No. 89118-2 EPA Est. XXX-YY-Z

Net Contents: 1, 2½ or 5 Gallons



Vive Crop Protection, Inc. 700 Bay St., Suite 1100 Toronto, ON M5G 1Z6 CANADA 1-416-260-8889

**SHAKE WELL BEFORE USE** 

#### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Warning. May be fatal if swallowed. Harmful if absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. Wear long-sleeved shirt and long pants, socks, shoes, and gloves. Wear protective eyewear.

#### **FIRST AID**

#### If swallowed:

- Call a poison control center or doctor immediately for treatment advice.
- Have person sip a glass of water if able to swallow.
- Do not induce vomiting unless told to by a poison control center or doctor.
- Do not give anything 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 center or doctor for treatment advice.

#### If in eyes:

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

#### Note to physician:

This product is a pyrethroid. If large amounts have been ingested, the stomach and intestines should be evacuated. Treatment is symptomatic and supportive. Digestible fats, oils, or alcohol may increase absorption and so should be avoided.

#### **EMERGENCY INFORMATION**

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. Call your poison control center at 1-800-222-1222. For information on product, usage, call NPIC at 1-888-858-7378, seven days a week, 6:30 am to 4.30 pm Pacific Time. During other times, call the poison control center 1-800-222-1222.

# Personal Protective Equipment (PPE)

Some materials that are chemically resistant to this product are listed below. If you would like more options follow the instructions for Category A on an EPA chemical resistance category selection chart.

Applicators and other handlers (other than mixers and loaders) must wear:

- Long-sleeved shirt and long pants
- · Chemical-resistant gloves made of any waterproof material such as polyvinyl chloride, nitrile rubber or butyl rubber
- Shoes plus socks

Mixers and Loaders must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material such as polyvinyl chloride, nitrile rubber or butyl rubber Shoes plus socks
- Protective eyewear

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

#### **USER SAFETY RECOMMENDATIONS**

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Wash thoroughly with soap and water after handling.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

#### **ENVIRONMENTAL HAZARDS**

This pesticide is extremely toxic to fish and aquatic invertebrates. Use with care when applying in areas adjacent to any body of water. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not make applications when weather conditions favor drift from treated areas. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwaters.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are foraging in the treatment area.

The use of bifenthrin is prohibited in areas that may result in exposure of endangered species to bifenthrin. Prior to use in a particular county contact the local extension service for procedures and precautions to use to protect endangered species.

### **DIRECTIONS FOR USE**

# Restricted Use Pesticide

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

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.

For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

Do not apply this product through any type of irrigation system.

# 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 enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 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 made of any waterproof material such as polyvinyl chloride, nitrile rubber or butyl rubber
- Shoes plus socks.

#### RESISTANCE MANAGEMENT RECOMMENDATIONS

VCP-03 contains the active ingredient bifenthrin which is a GROUP 3 INSECTICIDE and is effective against a variety of insect and mite pests.

Some insects are known to develop resistance to products used repeatedly for control. Because the development of resistance cannot be predicted, the use of this product should conform to resistance management strategies established for the use area. Consult your local or state agricultural authorities or universities for details.

To delay insecticide (or miticide) resistance consider:

- Avoiding the consecutive use of VCP-03 or other GROUP 3 insecticides/miticides that have a similar target site of action, on the same insect/mite species.
- Using tank-mixtures or premixes with insecticides/miticides from a different target site of action GROUP as long as the involved products are all registered for the same use and have different sites of action.
- Basing insecticide/miticide use on a comprehensive IPM program.
- Monitoring treated insect/mite populations for loss of field efficacy.
- Contacting your local extension specialist, certified crop advisors, and/or manufacturer for insecticide/miticide resistance management and/or IPM recommendations for the specific site and resistant pest problems.

The non-GROUP 3 insecticide(s) that is used to alternate or mix with a GROUP 3 insecticide must be labeled for the crop and, to be effective as a resistance management strategy, must also be labeled for the target insect pest.

Monitor the efficacy of all insecticides used in your insect pest management program and record other factors that may influence insecticide performance and insect pest population growth. If VCP-03 or another insecticide appears to be less effective against an insect pest that it previously controlled, contact your local extension specialist or certified crop advisor for further investigation. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

#### PRODUCT USE INSTRUCTIONS

VCP-03 is a versatile, broad-spectrum insecticide and miticide containing the active ingredient bifenthrin in an optimized SC formulation that is compatible with liquid fertilizers. VCP-03 provides activity against many important crop insect pests and can be used alternated with other insecticides with a different mode of action or tank-mixed with such insecticides and other crop protection products.

Bifenthrin, the active ingredient in VCP-03, belongs to the pyrethroid class of insecticides. Bifenthrin is a neurotoxin which causes exposed insects to develop hyperexcitation and tremors, followed by paralysis and death. Pyrethroids are classified as GROUP 3 INSECTICIDES.

#### **BUFFER ZONES**

#### **Vegetative Buffer Zones**

Construct and maintain a minimum 10-foot-wide vegetative filter strip of grass or other permanent vegetation between the field edge and down gradient aquatic habitat (such as, but not limited to, lakes; reservoirs; rivers; permanent streams; marshes or natural ponds; estuaries; and commercial fish farm ponds).

Only apply products containing bifenthrin onto fields where a maintained vegetative buffer strip of at least 10 feet exists between the field and down gradient aquatic habitat.

For guidance, refer to the following publication for information on constructing and maintaining effective buffers: Conservation Buffers to Reduce Pesticide Losses: Natural Resources Conservation Services.

USDA, N RCS.2000. Fort Worth, Texas. (21pp.)

http://www.nrcs.usda.gov/Internet/FSE DOCUMENTS/nrcs143 023819.pdf

**Buffer Zone for Ground Application (groundboom or airblast)** — Do not apply within 25 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, streams, marshes, ponds, estuaries, and commercial fish ponds).

**Buffer Zone for ULV Aerial Application -** Do not apply within 450 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, streams, marshes, ponds, estuaries, and commercial fish ponds).

**Buffer Zone for Non-ULV Aerial Application** — Do not apply within 150 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, streams, marshes, ponds, estuaries, and commercial fish ponds).

In New York State this product may not be applied within 100 feet (using ground equipment) to 300 feet (using aerial equipment) of coastal marshes or streams that drain into coastal marshes.

#### **INTEGRATED PEST MANAGEMENT (IPM)**

VCP-03 should be used as one component in an integrated pest management program including cultural practices that reduce insect pest pressure. Consult your local extension specialist or certified crop advisor for local best practices to manage insect pests.

### **SPRAY DRIFT REQUIREMENTS**

All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers.

#### Wind Direction and Speed

Only apply this product if the wind direction favors on-target deposition. Do not apply when the wind velocity exceeds 15 mph.

#### **Temperature Inversion**

Do not make aerial or ground applications into temperature inversions. Inversions are characterized by stable air and increasing temperatures with height above the ground. Mist or fog may indicate the presence of an inversion in humid areas. The applicator may detect the presence of an inversion by producing smoke and observing a smoke layer near the ground surface.

#### **Droplet Size**

Use only medium or coarser spray nozzles (for ground and non-ULV aerial application) according to ASAE (S572) definition for standard nozzles. In conditions of low humidity and high temperatures, use a coarser droplet size.

#### **Additional Requirements for Aerial Applications**

Mount the spray boom on the aircraft so as to minimize drift caused by wingtip or rotor vortices. The minimum practical boom length to be used must not exceed 75% of the wing span or 80% rotor diameter.

Flight speed and nozzle orientation must be considered in determining droplet size.

Spray must be released at the lowest height consistent with pest control and flight safety. Do not release spray at a height greater than 10 feet above the crop canopy unless a greater height is required for aircraft safety.

When applications are made with a cross-wind, the swath will be displaced downwind. The applicator must compensate for this displacement at the downwind edge of the application area by adjusting the path of the aircraft upwind.

#### APPLICATION AND MIXING INSTRUCTIONS

Shake well before use.

VCP-03 insecticide and miticide is designed for pre-plant incorporated, at plant, banded, broadcast, transplant-water drench, and foliar spray applications, and must be diluted with water and/or liquid fertilizer before application. Refer to Specific Use Directions for Crop Plants for pest control or suppression instructions.

Do not use strainer (nozzle screens) with a mesh designation greater than 50.

Make sure that application equipment is thoroughly cleaned and properly calibrated prior to application and thoroughly cleaned after application.

VCP-03 can be mixed directly with water and/or liquid starter or popup fertilizer. Follow liquid fertilizer recommendations regarding seed safety and use guidelines. Conduct a preliminary jar test using the appropriate ratio of fertilizer and VCP-03 (see instructions below). If mixture compatibility is not acceptable, repeat the jar test with an equivalent volume of water added to the liquid fertilizer prior to adding VCP-03. Do not exceed dilution specified by mixing instructions. For best results, use immediately after mixing. Do not allow a tank mixture to set overnight. Do not store mixtures. Make sure that application equipment is thoroughly cleaned and properly calibrated prior to application and thoroughly cleaned after application.

- · Use spray nozzles appropriate for the crop to provide full coverage and uniform distribution of the spray mixture
- Use screens where appropriate to protect sprayer equipment and prevent clogging

- Screens used to protect pump on the suction side to be no finer than 16-mesh
- Do not fit the recirculation line of the spray system with a screen
- Screens used on the spray nozzles are to be no finer than 50-mesh
- The spray system pump is to have sufficient capacity to deliver 35-40 psi of pressure to the nozzles, and recirculate at least 10% of the tank volume per minute to maintain a uniform mixture
- Agitate the spray mixture with a jet agitator or liquid sparge tube
- · Do not use air sparge

Consult manufacturers of spray equipment for more information on sprayer use, calibration, and recommendations. Consult state agricultural extension recommendations for local directions and spray schedules.

Cultivation within 10 feet of a water body is prohibited to allow for the growth of a vegetated filter strip.

Choose the rate of application within the label ranges for the crop being treated based on expected insect pest pressure. This can be determined by history and scouting of the field and whether weather conditions are expected to be favorable. Use lower rates when insect pest pressure is expected to be light and use higher rates when insect pest pressure is expected to be heavy. Application rates are generally higher in arid climates.

Unless otherwise directed by registered supplemental labeling, follow the Directions for Use in each crop group section.

#### MIXING INSTRUCTIONS

#### Solo VCP-03 Application

- Determine the required volume of water or liquid fertilizer for application and fill the spray/mixing tank with ½ 1/3 of this volume
- Begin agitation of the tank and add the required volume of VCP-03 for the insecticide application
- Continue agitation while adding the remaining ½ ½ volume of water or liquid fertilizer to complete the spray mixture
- Apply the mixture after the contents of the tank are completely dispersed
- Maintain agitation of the spray tank until all of the spray mixture has been applied.
- Thoroughly rinse spray tank with water and dispose of the rinse water by spraying onto a section of the already treated crop

Do not prepare more spray mixture than is required for the treatment. Do not allow a mixture to set overnight. If this occurs, agitate the mixture and assess prior to application. Do not store spray mixtures.

#### **VCP-03 Tank Mixture Application**

VCP-03 may be applied in tank mixtures with adjuvants, micronutrients, and other products approved for use on registered crops. Observe all restrictions and precautions which appear on the labels of these products. Do not combine VCP-03 in the spray tank with pesticides, adjuvants or fertilizers unless compatibility charts or your own prior use has shown that the combination is physically compatible, and the combination is effective and non-injurious to the target crop under your use conditions.

When an adjuvant is used, it is recommended to use an adjuvant that meets the standards of the Chemical Producers and Distributors Association (CPDA) adjuvant certification.

Caution: Test potential mixing partners, including adjuvants, for mixing compatibility using a standard jar test or other similar method and for crop safety prior to use on a crop. Incompatibilities may exist with some methylated seed oils, crop oil concentrates, or silicone-based adjuvants; conduct jar tests before using.

The following jar test procedure is recommended to evaluate compatibility: Following any product specific instructions for order of addition, pour the recommended proportions of the products into a suitable container, mix thoroughly and allow to stand at least twenty (20) minutes. If the combination remains mixed or can be re-mixed readily, the mixture is considered physically compatible.

Do not prepare more spray mixture than is required for the treatment. For best results, use immediately after mixing. Do not allow a mixture to set overnight. If this occurs, agitate the mixture and assess prior to application. Do not store spray mixtures.

#### INSTRUCTIONS FOR PRE AND PPI APPLICATIONS

**PPI Treatments**: PPI herbicides can be tank mixed with VCP-03. Test for compatibility with jar tests or similar methods before use. Follow all use rate recommendations. Incorporate VCP-03 close to seed planting depth up to a max depth of 3 inches.

**PRE Treatments**: PRE herbicides can be tank mixed with VCP-03. Test for compatibility with jar tests or similar methods before use and follow all use rate recommendations.

#### INSTRUCTIONS FOR AT PLANT AND BANDED APPLICATIONS

VCP-03 can be applied as a soil-directed application at plant as an in-furrow or T-band application or as an early season banded application over the plant row for control of below ground and surface feeding insect pests. Refer to the use directions for specific crops to determine if such applications are labeled for a given crop and, if so, for which insect pests.

Generally, at plant in-furrow applications are more effective against below ground feeding insects, whereas T-band and broadcast applications may be more effective against surface feeding insect pests. Check with your local extension specialist or certified crop advisor for specific advice on best local practices for insect control.

#### **At Plant Application Instructions**

Use 3-20 gallons of water or liquid fertilizer per acre for in-furrow or T-band applications.

Direct the 5 -7 inch spray into the furrow just before the seed is covered, unless instructed otherwise under the specific crop instructions.

Use the higher rate if conditions are expected to be favorable for insect pests or mites, or if minimum or no-till practices are being followed.

# At Plant In-Furrow / T-Band Application Rates Table Provides fl. oz. Product per Acre

Fl. Oz. VCP-03 per Acre			er Acre	
Row Feet per Acre	Crop Row Spacing (inches)	0.17 fl. oz. VCP-03 per 1000 row feet	0.34 fl. oz. VCP-03 per 1000 row feet	0.42 fl. oz. VCP-03 per 1000 row feet
23760	22	4.0	8.1	10.0
21780	24	3.7	7.4	9.1
20105	26	3.4	6.8	8.4
18669	28	3.2	6.3	7.8
17424	30	3.0	5.9	7.3
16335	32	2.8	5.6	6.9
15374	34	2.6	5.2	6.5
14520	36	2.5	4.9	6.1
13756	38	2.3	4.7	5.8
13068	40	2.2	4.4	5.5

#### **INSTRUCTIONS FOR FOLIAR APPLICATIONS**

VCP-03 can be applied as a spray to above ground plant parts such as flowers, foliage and fruit. Application in a tank mixture with an adjuvant is recommended to get best wetting. Refer to the use directions for specific crops to determine if such applications are labeled for a given crop and, if so, for which plant parts and which insect pests.

Use higher label rates if insect pest pressure is high, controlling for mites, and/or conditions are expected to be favorable for pest population growth.

Do not apply when conditions favor drift from the area intended for treatment; follow instructions under the Spray Drift section.

#### **Ground Applications**

Apply with sufficient water or liquid fertilizer in a manner that provides thorough and uniform coverage to obtain good pest control. Follow spray volume recommendations given under specific crops.

# **Aerial Applications**

Apply with sufficient water or liquid fertilizer in a manner that provides uniform coverage for good pest control. Follow spray volume recommendations given under specific crops. Dense canopies may limit coverage on lower leaves from aerial applications reducing insect pest control on those leaves.

#### **ROTATIONAL CROPS**

Crops for which bifenthrin tolerances exist may be rotated at any time. All other crops may be rotated 30 days following the final application of bifenthrin.

#### SPECIFIC USE DIRECTIONS FOR CROP PLANTS

#### **ARTICHOKE (FOLIAR)**

	USE RATES
PESTS	fl. oz. product/acre
	(lb. a.i./acre)
Artichoke Plume Moth	7.4
Cribrate Weevil	(0.10)

#### **Product Instructions:**

Apply this product in a minimum of 75 gallons per acre with ground equipment or in a minimum of 10 gallons of finished spray per acre by aircraft.

#### **Specific Use Restrictions:**

Do not make applications less than 15 days apart.

Do not apply more than 0.5 pound active ingredient per acre per season.

Do not apply within 5 days of harvest.

#### BEANS AND PEAS, DRIED (AT PLANT, BANDED)

Dried cultivars of: Bean (Lupinus); Bean (Phaseolus), Field bean, Kidney bean, Lima bean (dry), Navy bean, Pinto bean, Tepary bean; Bean (Vigna), Adzuki bean, Blackeyed pea, Catjang, Cowpea, Crowder pea, Moth bean, Mung bean, Rice bean, Southern pea, Urd bean; Broad bean (dry), Chickpea, Guar, Lablab bean, Lentil; Pea (Pisum), Field pea, Pigeon pea

	USE RATES	
PESTS	BROADCAST	IN-FURROW / T-BAND
PESIS	fl. oz. product/acre	fl. oz. product/1000 row ft.
	(lb. a.i./acre)	(lb. a.i./1000 row ft.)
Corn Doots your (low roo)	5.9 – 7.4	0.34 – 0.42
Corn Rootworm (larvae)	(0.08 - 0.1)	(0.0046-0.0057)
Grape Colapsis		
Grubs	2.9 – 5.9	0.17 - 0.34
Root Maggot	(0.04 - 0.08)	(0.0023 - 0.0046)
Wireworm		
Army Cutworm <sup>1</sup>		
Armyworm spp. <sup>1</sup>	2.9 – 5.9	0.17 - 0.34
Cutworm spp. <sup>1</sup>	(0.04 - 0.08)	(0.0023 - 0.0046)
True Armyworm <sup>1</sup>		

#### **Product Instructions:**

Following best local practice, apply T-band over an open furrow, in-furrow as a spray, or as a banded spray over the row targeting the plant bases and surrounding soil. Thorough coverage of these areas is important for good control.

# **Specific Use Restrictions:**

Do not apply more than 0.1 pound active ingredient per acre per season as an at-plant application.

Do not apply more than 0.2 pound active ingredient to peas, or 0.3 pound active ingredient to beans per acre per season including at-plant plus foliar application of other bifenthrin products.

# BEANS AND PEAS, SUCCULENT (AT PLANT, BANDED)

Pea (Pisum spp.): Dwarf pea, Edible-pod pea, English pea, Garden pea, Green pea, Snow pea, Sugar snap pea, Pigeon pea; Bean (Phaseolus spp.): Broadbean (succulent), Lima bean (green), Runner bean, Snap bean, Wax bean; Bean, Vigna spp.): Asparagus bean, Blackeyed pea, Chinese longbean, Cowpea, Moth bean, Southern pea, Yardlong bean, Jackbean, Soybean (immature seed), Sword bean

<sup>&</sup>lt;sup>1</sup>Army cutworm, Cutworm spp., True armyworm, or Armyworm spp.: Apply broadcast to soil surface.

	USE RATES	
PESTS	BROADCAST	IN-FURROW / T-BAND
PESIS	fl. oz. product/acre	fl. oz. product/1000 row ft.
	(lb. a.i./acre)	(lb. a.i./1000 row ft.)
Rootworm larvae	5.9 – 7.4	0.34 - 0.42
Rootworm larvae	(0.08 - 0.1)	(0.0046-0.0057)
Grape Colapsis		
Grubs	2.9 – 5.9	0.17 - 0.34
Root Maggot	(0.04 - 0.08)	(0.0023 - 0.0046)
Seedcorn Maggot	(1111)	(11111111111111111111111111111111111111
Wireworm		
Army Cutworm <sup>1</sup>		
Armyworm spp. 1	2.9 – 5.9	0.17 - 0.34
Cutworm spp. 1	(0.04 - 0.08)	(0.0023 - 0.0046)
True Armyworm <sup>1</sup>		

Following best local practice, apply T-band over an open furrow, in-furrow as a spray, or as a banded spray over the row targeting the plant bases and surrounding soil. Thorough coverage of these areas is important for good control.

#### **Specific Use Restrictions:**

Do not apply more than 0.1 pound active ingredient per acre per season as an at-plant application.

Do not apply more than 0.2 pound active ingredient per acre per season including at-plant plus foliar application of other bifenthrin products.

# **BEANS AND PEAS, SUCCULENT (FOLIAR)**

Pea (Pisum spp.): Dwarf pea, Edible-pod pea, English pea, Garden pea, Green pea, Snow pea, Sugar snap pea, Pigeon pea; Bean (Phaseolus spp.): Broadbean (succulent), Lima bean (green), Runner bean, Snap bean, Wax bean; Bean, (Vigna spp.): Asparagus bean, Blackeyed pea, Chinese longbean, Cowpea, Moth bean, Southern pea, Yardlong bean, Jackbean, Soybean (immature seed), Sword bean

PESTS	USE RATES fl. oz. product/acre
	(lb. a.i./acre)
Aster Leafhoppers	
Flea Beetle	1.8 -7.4
Grasshoppers	(0.025-0.10)
Leafhoppers	
Alfalfa Caterpillar	
Aphids	
Bean Leaf Beetle	
Beet Armyworm	
Cloverworm	
Corn Earworm	
Corn Rootworm (Adult)	2.4 – 7.4
Cucumber Beetles	(0.033-0.10)
Cutworms	(0.033 0.10)
European Corn Borer	
Fall Armyworm	
Japanese Beetle (Adult)	
Loopers	
Pea Leaf Weevil	
Pea Weevil	

<sup>&</sup>lt;sup>1</sup>Army cutworm, Cutworm spp., True armyworm, Armyworm spp.: Apply broadcast to soil surface.

Plant Bug	
Sap Beetle	
Stink Bug	
Southern Armyworm	
Tarnished Plant Bug	
Thrips	
Webworms	
Western Bean Cutworm	
Whitefly	
Yellow Striped Armyworm	
Banks Grass Mite	
Two-spotted Spider Mite	5.9 – 7.4
Carmine Mite	(0.08-0.10)
Lygus spp.	

Apply this product in a minimum of 10 gallons per acre with ground equipment or in a minimum of 2 gallons of finished spray per acre by aircraft. When applying by air, 1-2 quarts of emulsified oil may be substituted for equivalent amounts of water in the finished spray. Thorough coverage is important for good control.

#### **Specific Use Restrictions:**

Do not apply more than 0.2 pound active ingredient per acre per season including at-plant plus foliar application of other bifenthrin products.

Do not apply within 3 days of harvest.

# **BRASSICAS (AT PLANT, BANDED)**

Head and Stem Brassica Vegetables including: Broccoli, Chinese Broccoli (gai lon, white flowering broccoli), Brussels Sprouts, Cauliflower, Cavalo broccolo, Kohlrabi, Cabbage, Chinese Cabbage (napa), and Chinese Mustard Cabbage (gai choy)

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	USE RATES	
PESTS	BROADCAST	IN-FURROW T-BAND
PESIS	fl. oz. product/acre	fl. oz. product/1000 row ft.
	(lb. a.i./1000 row ft.)	(lb. a.i./acre)
Rootworm larvae	5.9 – 7.4	0.34 - 0.42
Rootworm larvae	(0.08 - 0.1)	(0.0046-0.0057)
Cabbage Maggot		
Grubs		
Root Maggots	2.9 – 5.9	0.17 - 0.34
Root Aphids	(0.04 - 0.08)	(0.0023 - 0.0046)
Seedcorn Maggot		
Wireworm		
Army Cutworm <sup>1</sup>	2.9 – 5.9	0.17 - 0.34
Armyworm spp. <sup>1</sup>	(0.04 – 0.08)	(0.0023 - 0.0046)
Cutworm spp. 1	(0.04 - 0.08)	(0.0023 - 0.0046)

#### **Product Instructions:**

Following best local practice, apply as a spray T-banded over an open furrow or in-furrow with the seed. Thorough coverage is important for good control.

# **Specific Use Restrictions:**

Do not apply more than 0.1 pound active ingredient per acre per season as an at-plant application.

Do not apply more than 0.5 pound active ingredient per acre per season including at-plant plus foliar application of other bifenthrin products.

<sup>&</sup>lt;sup>1</sup>Cutworm and armyworm: VCP-03 may be applied as a broadcast treatment to soil surface.

# **BRASSICAS (FOLIAR)**

Head and Stem Brassica Vegetables including: Broccoli, Chinese Broccoli (gai lon, white flowering broccoli), Brussels Sprouts, Cauliflower, Cavalo broccolo, Kohlrabi, Cabbage, Chinese Cabbage (napa), and Chinese Mustard Cabbage (gai choy)

	USE RATES
PESTS	fl. oz. product/acre
	(lb. a.i./acre)
Aphids	
Armyworm Spp.	
Crickets	
Cucumber Beetles	
Cutworms	
Corn Earworm	
Diamondback Moth	
Flea Beetles	
Ground Beetles	2.4 – 7.4
Imported Cabbageworm	(0.033-0.10)
Leafhoppers	
Loopers	
Saltmarsh Caterpillar	
Stink Bug	
Thrips	
Tobacco Budworm	
Whitefly	
Wireworm (Adult)	
Banks Grass Mite	
Carmine Mite	5.9 – 7.4
Lygus spp.	(0.08-0.10)
Pacific Spider Mite	(0.06-0.10)
Two-spotted Spider Mite	

#### **Product Instructions:**

Apply this product in a minimum of 10 gallons per acre with ground equipment or in a minimum of 2 gallons of finished spray per acre by aircraft. When applying by air, 1-2 quarts of emulsified oil may be substituted for equivalent amounts of water in the finished spray. Thorough coverage is important for good control.

# **Specific Use Restrictions:**

Do not apply more than 0.5 pound active ingredient per acre per season.

Do not make more than 5 applications after bloom.

Do not make applications less than 7 days apart.

Do not apply within 7 days of harvest.

# BRASSICAS, LEAFY; TURNIP GREENS (AT PLANT, BANDED)

Broccoli Raab, Bok Choy, Collards, Kale, Mizuna, Mustard Greens, Mustard Spinach, Rape Greens, Turnip Greens

	USE RATES	
PESTS	BROADCAST	IN-FURROW / T-BAND
PESIS	fl. oz. product/acre	fl. oz. product/1000 row ft.
	(lb. a.i./acre)	(lb. a.i./1000 row ft.)
Rootworm larvae	5.9 – 7.4	0.34 - 0.42
Rootworm arvae	(0.08 - 0.1)	(0.0046-0.0057)
Grubs		
Root Maggot	2.9 – 5.9	0.17 - 0.34
Lettuce Root Aphid	(0.04 - 0.08)	(0.0023 - 0.0046)
Wireworm		
Army Cutworm <sup>1</sup>	2.9 – 5.9	0.17 - 0.34

Armyworm spp. <sup>1</sup>	(0.04 – 0.08)	(0.0023 - 0.0046)
Cutworm spp. 1		
True Armyworm <sup>1</sup>		

Following best local practice, apply T-band over an open furrow, in-furrow as a spray, or as a banded spray over the row targeting the plant bases and surrounding soil. Thorough coverage of these areas is important for good control.

### **Specific Use Restrictions:**

Do not apply more than 0.1 pound active ingredient per acre per season as an at-plant application.

Do not apply more than 0.4 pound active ingredient per acre per season including at-plant plus foliar application of other bifenthrin products.

#### **CANEBERRIES (FOLIAR)**

Caneberries including: Blackberries, Bingleberries, Dewberries, Lowberries, Marionberries, Olallieberries, Youngberries, Loganberries, Raspberries

PESTS	USE RATES fl. oz. product/acre (lb. a.i./acre)
Leafroller Orange Tortrix Root Weevil	3.7 – 7.4 (0.05-0.10)
Spider Mites	7.4 (0.10)

# **Product Instructions:**

Apply this product in a minimum of 50 gallons per acre with ground equipment or in a minimum of 10 gallons of finished spray per acre by aircraft. One application may be made pre-bloom and a second application may be made post-bloom.

#### **Specific Use Restrictions:**

Do not apply more than 0.2 pound active ingredient per acre per season.

Do not apply within 3 days of harvest.

Do not apply within 4 days of harvest for caneberries that are hand-harvested.

# **CANOLA, CRAMBE, RAPESEED (FOLIAR)**

PESTS	USE RATES fl. oz. product/acre (lb. a.i./acre)
Aphids	
Armyworm spp.	
Cutworms	
Diamondback Moth	
Flea Beetles	
Flea Hopper	
Grasshoppers	2.4 – 2.9
Loopers	(0.033-0.04)
Other Lepidopterous Larvae	
Plant Bugs	
Stink Bugs	
Seedpod Weevil	
Thrips	
Whitefly	

<sup>&</sup>lt;sup>1</sup>Army cutworm, Cutworm spp., True armyworm, Armyworm spp.: Apply broadcast to soil surface.

Apply this product in a minimum of 10 gallons per acre with ground equipment or in a minimum of 2 gallons of finished spray per acre by aircraft. When applying by air, 1-2 quarts of emulsified oil may be substituted for equivalent amounts of water in the finished spray. Thorough coverage is important for good control.

#### **Specific Use Restrictions:**

Do not apply more than 0.08 pound active ingredient per acre per season.

Do not make applications less than 14 days apart.

Do not apply within 35 days of harvest.

# CILANTRO, CORIANDER (AT PLANT, BANDED)

	USE RATES	
PESTS	BROADCAST	IN-FURROW / T-BAND
	fl. oz. product/acre	fl. oz. product/1000 row ft.
	(lb. a.i./acre)	(lb. a.i./1000 row ft.)
Armyworm spp.		
Cutworm spp.	2.9 – 5.9	0.17 - 0.34
Flea Beetle (larvae)	(0.04 - 0.08)	(0.0023 - 0.0046)
Wireworm		

#### **Product Instructions:**

Following best local practice, apply T-band over an open furrow, in-furrow as a spray, or as a banded spray over the row targeting the plant bases and surrounding soil. Thorough coverage of these areas is important for good control.

#### **Specific Use Restrictions:**

Do not apply more than 0.1 pound active ingredient per acre per season as an at-plant application.

Do not apply more than 0.5 pound active ingredient per acre per season including at-plant plus foliar application of other bifenthrin products.

#### CITRUS (BARE SOIL SURFACE UNDER DRIP LINE)

	USE RATES	
PESTS	fl. oz. product/acre	
	(lb. a.i./acre)	
Blue Green Citrus Root Weevil		
Brown Leaf Notcher	18.4 – 36.8	
Diaprepes Root Weevil		
Little Leaf Notcher	(0.25 – 0.50)	
Southern Blue Green Citrus Root Weevil		

#### **Product Instructions:**

Using ground equipment, uniformly apply VCP-03 to the bare soil beneath citrus trees, from trunk to drip line.

Larger spray volume should increase coverage uniformity. Additionally, a pre- and post-application irrigation may aid in coverage uniformity.

VCP-03 forms a chemical barrier to Diaprepes and citrus root weevil larvae (neonates). Neonates hatch and fall from foliage, and attempt to burrow into the root zone of the tree. VCP-03 provides contact activity against these neonates, so soil disturbance at the base of trees should be minimized.

Application timing is crucial for effective control of Diaprepes Root Weevil. Depending on region, Diaprepes can have one or two emergence peaks; one in the spring and one in the fall. These peaks can be greatly affected by environmental factors such as soil moisture. Apply high rates of VCP-03 at the time of greatest emergence, or two moderate rates can be used if similar spring and fall emergence peaks are forecasted. If weevil emergence extends beyond the residual life of this product, use other management

strategies (such as nematodes) to extend control. Consult with your local extension specialist or certified crop advisor for the most accurate and up-to-date emergence and application timing.

VCP-03 is also a valuable tool in an integrated pest management program for Citrus Root Weevil. Use in combination with good biological and cultural control practices for management of adult and larvae populations.

Apply to individual citrus resets, when not in solid planted rows, using hand-gun or shielded sprayer.

#### **Specific Use Restrictions:**

Do not apply through irrigation systems.

Do not allow any application of VCP-03 to contact fruit or foliage.

Do not apply more than 0.5 pound active ingredient per acre per season.

Apply the specified dosage in a minimum of 40 gallons of finished spray per acre.

Do not apply by air.

Do not apply within 1 day of harvest.

#### **CORN (AT PLANT, BANDED)**

#### Field Corn (Grain and Silage), Popcorn, Field Corn Grown for Seed, Sweet Corn, Sweet Corn Grown for Seed

		USE RATES	
PESTS	BROADCAST	IN-FURROW / T-Band	
PESIS	fl. oz. product/acre	fl. oz. product/1000 row ft.	
	(lb. a.i./acre)	(lb. a.i./1000 row ft.)	
Corn Rootworm (larvae) (Northern, Southern, and	5.9 – 14.7	0.34 - 0.42	
Western)	(0.08 - 0.2)	(0.0046-0.0057)	
Grape Colapsis			
Grubs	2.9 – 11.8	0.17 - 0.34	
Root Aphids			
Seedcorn Maggot	(0.04 - 0.16)	(0.0023 - 0.0046)	
Wireworm			
Army Cutworm <sup>1</sup>			
Armyworm spp. 1	2.9 – 11.8	0.17 - 0.34	
Cutworm spp. <sup>1</sup>			
Stalkborer <sup>1</sup>	(0.04 - 0.16)	(0.0023 - 0.0046)	
True Armyworm <sup>1</sup>			

#### **Product Instructions:**

Following best local practice, apply as a spray T-banded over an open furrow or in-furrow with the seed. Thorough coverage is important for good control.

#### **Specific Use Restrictions:**

Do not apply more than 0.1 pound active ingredient per acre per season as an at-plant application.

Do not apply to soil where there is greater than 30% cover of crop residue remaining.

For field corn – Do not apply more than 0.3 pound active ingredient per acre per season including at-plant plus foliar applications of other bifenthrin products.

For sweet corn – Do not apply more than 0.2 pound active ingredient per acre total per season including PRE, PPI, at-plant and foliar applications of other bifenthrin products.

<sup>&</sup>lt;sup>1</sup>Army cutworm, Stalkborer, Cutworm spp., True armyworm or Armyworm spp.: Apply as a 5 -7 inch band over the row on the soil surface, a 5 – 7 inch band over the open furrow (T-band), in-furrow with the seed, or broadcast to the soil surface.

# **CORN (PRE & PPI)**

# Field Corn (Grain and Silage), Popcorn, Field Corn Grown for Seed, Sweet Corn, Sweet Corn Grown for Seed

PESTS	USE RATES fl. oz. product/acre (lb. a.i./acre)
Armyworm spp.	
Black Cutworm	3.5 – 4.6
Grape Colapsis	(0.047 – 0.062)
Seedcorn Maggot	Pre-Plant Incorporated
White Grub	(PPI)
Wireworm	
Armyworm spp.	2.9
Black Cutworm	(0.04)
Stalkborer	Pre-Emergence (PRE)

#### **Product Instructions:**

**PPI Treatments**: PPI herbicides can be tank mixed with VCP-03. Test for compatibility with jar tests or similar methods before use. Follow all use rate recommendations Incorporate VCP-03 close to seed planting depth up to a max depth of 3 inches.

**PRE Treatments**: PRE herbicides can be tank mixed with VCP-03. Test for compatibility with jar tests or similar methods before use and follow all use rate recommendations.

#### **Specific Use Restrictions:**

**Field corn:** Do not apply more than 0.3 pound active ingredient per acre total per season including PRE, PPI, at-plant and foliar applications of other bifenthrin products.

**Sweet Corn:** Do not apply more than 0.2 pound active ingredient per acre total per season including PRE, PPI, at-plant and foliar applications of other bifenthrin products.

# **CORN (FOLIAR)**

#### Field Corn (Grain and Silage), Popcorn, Field Corn Grown for Seed, Sweet Corn, Sweet Corn Grown for Seed

PESTS	USE RATES fl. oz. product/acre (lb. a.i./acre)
Aphids	, ,
Army Cutworm	
Armyworm spp.	
Beet Armyworm	
Cereal Leaf Beetle	
Chinch Bug	
Common Stalk Borer	
Corn Earworm	
Corn Rootworm (Adult)	
Cucumber Beetle (Adult)	
Cutworm spp.	2.4 – 7.4
European Corn Borer <sup>3</sup>	(0.033-0.10)
Fall Armyworm	(0.033 0.10)
Flea Beetle	
Grasshoppers	
Greenbug	
Japanese Beetle (Adult)	
Leafhoppers	
Sap Beetle	
Southern Armyworm	
Southern Corn Leaf Beetle	
Southwestern Corn Borer <sup>3</sup>	
Stinkbugs	

Thrips	
Tarnished Plant Bug	
True Armyworm	
Webworms	
Western Bean Cutworm	
Yellow Striped Armyworm	
Banks Grass Mite <sup>1,2</sup>	5.9 – 7.4
Carmine Mite <sup>1,2</sup>	(0.08-0.10)
Two-spotted Spider Mite <sup>1,2</sup>	(0.06-0.10)

Apply in a minimum of 10 gallons per acre with ground equipment or in a minimum of 2-5 gallons of finished spray per acre by aircraft. To improve control by aircraft, use 5 gallons of finished spray per acre particularly when initial populations are heavier than normal. When applying by aircraft, 1-2 quarts of emulsified oil may be substituted for equivalent amounts water in the finished spray. Thorough coverage is important for good control.

<sup>1</sup>Mites: Apply for Banks Grass Mite control when colonies first form prior to leaf damage or discoloration and before dispersal above the bottom third of the plant. For Two-Spotted Spider Mite and Carmine Mite control, apply when colonies first form prior to leaf damage or discoloration and before widespread mite dispersal throughout the canopy. Higher rates will be necessary for heavier initial populations and corn under heat or drought stress. Field experience with dimethoate at 0.5 lb. active per acre in tank mixture has demonstrated good control under these conditions.

<sup>2</sup>Mite control in Texas, New Mexico, Oklahoma, Arizona: Apply in a minimum of 5 gallons of finished spray per acre by aircraft or in a minimum of 10 gallons per acre with ground equipment.

<sup>3</sup>Southwestern Corn Borer and European Corn Borer: Make initial application for corn borer control at or shortly before egg hatch and repeat as necessary.

Corn ear-attacking pests: Apply this product just before silking and repeat as necessary to maintain control.

Other insect pests: Apply when pests first appear and repeat as necessary.

#### **Specific Use Restrictions:**

On field corn, do not apply more than 0.3 pound active per acre per season including PRE and PPI, at plant, plus foliar applications.

On sweet corn, do not apply more than 0.2 pound active per acre per season including PRE and PPI, at plant, plus foliar applications.

Do not apply within 30 days of harvest for field corn or within 1 day of harvest for sweet corn.

Do not graze livestock in treated areas or cut treated crops for feed within 30 days of last application for field corn or within 1 day of harvest for sweet corn.

Use of ultra low volume (ULV) application on corn is prohibited.

Do not make aerial or ground applications to corn if heavy rainfall is imminent.

Use of this product on corn is prohibited in all coastal counties.

#### **COTTON (FOLIAR)**

PESTS	USE RATES fl. oz. product/acre (lb. a.i./acre)
European Corn Borer Spybean (Banded) Thrips Tobacco Thrips	1.5 – 7.4 (0.02 – 0.10)
Boll Weevil <sup>1</sup> Bollworm Cabbage Looper Cotton Aphid <sup>2</sup> Cotton Fleahopper Cotton Leafperforator Cutworm Fall Armyworm Plant Bug	2.9 – 7.4 (0.04 – 0.10)

Saltmarsh Caterpillar	
Southern Garden Leafhopper	
Stink Bug	
Tobacco Budworm	
Whitefly	
Yellow Striped Armyworm	
Beet Armyworm	
Carmine Spider Mite <sup>2</sup>	4.4 – 7.4
Lygus Spp.	(0.06 – 0.10)
Pink Bollworm	(0.00 – 0.10)
Two-Spotted Spider Mite <sup>2</sup>	

**Application in Water**: Apply in a minimum of 5 gallons per acre with ground equipment or 1 gallon per acre by aircraft. When applying by air, 1 quart of emulsified oil may be substituted for equivalent amount water in the finished spray.

**ULV Application**: Apply the recommended rate of this product in a minimum of 1 quart of finished spray per acre with aircraft calibrated to give adequate coverage.

<sup>1</sup>Boll Weevil: Apply product at an interval of 3 to 4 days until pest numbers are reduced to acceptable levels.

<sup>2</sup>Mites and Aphids: Apply when pests first appear. Repeat as necessary to maintain control. Higher rates will be required once a damaging threshold is reached.

# **Specific Use Restrictions:**

Do not apply more than 0.5 pound active per acre per season.

In California only: Do not apply more than 0.3 pound active ingredient per acre per season. Do not make more than 3 applications per season.

Do not apply within 14 days of harvest.

Do not graze livestock in treated areas or cut treated crops for feed.

Do not make more than 10 synthetic pyrethroid applications (of one product or combination of products) to a cotton crop in one growing season.

# **CUCURBITS (AT PLANT, BANDED)**

Chayote (fruit), Chinese waxgourd (Chinese preserving melon), Citron melon, Cucumber, Gherkin, Gourd, edible *Lagenaria spp*. (includes hyotan, cucuzza), *Luffa spp*. (includes hechima, Chinese okra), *Momordica spp*. (includes balsam apple, balsam pear, bitter melon, Chinese cucumber), Muskmelon (hybrids and/or cultivars or *Cucumis melo*) (includes true cantaloupe, cantaloupe, casaba, Crenshaw melon, golden pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon, and snake melon), Pumpkin (*Cucurbita spp*.), Squash, summer (includes crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini), Squash, winter (includes butternut squash, Calabaza, hubbard squash (*C. mixta; C. pepo*) includes acorn squash, spaghetti squash), Watermelon (includes hybrids and/or varieties of *Citrullus spp*.).

	U	SE RATES
PESTS	BROADCAST	IN-FURROW / T-BAND
	fl. oz. product/acre	fl. oz. product/1000 row ft.
	(lb. a.i./acre)	(lb. a.i./1000 row ft.)
Army Cutworm <sup>1</sup>		
Armyworm spp. 1	2.9 – 5.9	0.17 - 0.34
Cutworm spp. 1	(0.04 - 0.08)	(0.0023 - 0.0046)
True Armyworm <sup>1</sup>		
Cucumber Beetle (larvae) <sup>2</sup>	5.9-7.4	0.34 - 0.42
	(0.08 - 0.1)	(0.0046-0.0057)
Flea Beetle (larvae) <sup>3</sup>	30 50	0.17 0.24
Grubs <sup>3</sup>	2.9 – 5.9	0.17 - 0.34
Wireworm <sup>3</sup>	(0.04 - 0.08)	(0.0023 - 0.0046)

<sup>1</sup>Army cutworm, cutworm spp., true armyworm and armyworm spp.: Following best local practice, apply T-band over an open furrow, in-furrow as a spray, or as a banded spray over the row targeting the plant bases and surrounding soil. Thorough coverage of these areas is important for good control.

<sup>2</sup>Cucumber Beetle larvae (Rootworms): Following best local practice, apply as a spray T-banded over an open furrow or in-furrow with the seed. Thorough coverage is important for good control.

<sup>3</sup>Wireworm, grubs, and flea beetle larvae: Following best local practice, apply as a spray T-banded over an open furrow or in-furrow with the seed. Thorough coverage is important for good control.

#### **Specific Use Restrictions:**

Do not apply more than 0.1 pound active ingredient per acre per season as an at-plant application.

Do not apply more than 0.3 pound active ingredient per acre per season including at-plant plus foliar application of other bifenthrin products.

#### **CUCURBITS (FOLIAR)**

Chayote (fruit), Chinese waxgourd (Chinese preserving melon), Citron melon, Cucumber, Gherkin, Gourd, edible *Lagenaria spp.* (includes hyotan, cucuzza), *Luffa spp.* (includes hechima, Chinese okra), *Momordica spp.* (includes balsam apple, balsam pear, bitter melon, Chinese cucumber), Muskmelon (hybrids and/or cultivars or *Cucumis melo*) (includes true cantaloupe, cantaloupe, casaba, Crenshaw melon, golden pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon, and snake melon), Pumpkin (*Cucurbita spp.*), Squash, summer (includes crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini), Squash, winter (includes butternut squash, Calabaza, hubbard squash (*C. mixta; C. pepo*) includes acorn squash, spaghetti squash), Watermelon (includes hybrids and/or varieties of *Citrullus spp.*).

PESTS	USE RATES fl. oz. product/acre (lb. a.i./acre)
Aphids Armyworm Cabbage Looper Corn Earworm Cucumber Beetle Cutworm Grasshopper Leafhoppers Melonworm Pickleworm Plant Bug Rindworm Squash Bug Squash Vine Borer Stink Bug Tobacco Budworm	2.9 – 7.4 (0.04-0.10)
Banks Grass Mite Carmine Mite Lygus spp. Two-spotted Spider Mite Whitefly	5.9 – 7.4 (0.08-0.10)

#### **Product Instructions:**

Apply this product in a minimum of 20 gallons per acre with ground equipment or in a minimum of 5 gallons of finished spray per acre by aircraft. When applying by air, 1-2 quarts of emulsified oil may be substituted for equivalent amounts of water in the finished spray. Thorough coverage is important for good control.

#### **Specific Use Restrictions:**

Do not apply more than 0.3 pound active ingredient per acre per season.

Do not make more than 2 applications after bloom.

Do not make applications less than 7 days apart.

Do not apply within 3 days of harvest.

# **EGGPLANT (AT PLANT, BANDED)**

	USE RATES	
PESTS	BROADCAST	IN-FURROW / T-BAND
	fl. oz. product/acre	fl. oz. product/1000 row ft.
	(lb. a.i./acre)	(lb. a.i./1000 row ft.)
Rootworm larvae	5.9 – 7.4	0.34 - 0.42
	(0.08 - 0.1)	(0.0046-0.0057)
Grubs	2.9 – 5.9	0.17 - 0.34
Root Maggot	(0.04 – 0.08)	(0.0023 - 0.0046)
Wireworm	(0.04 0.08)	(0.0023 - 0.0040)
Army Cutworm <sup>1</sup>		
Armyworm spp. 1	2.9 – 5.9	0.17 - 0.34
Cutworm spp. 1	(0.04 - 0.08)	(0.0023 - 0.0046)
True Armyworm <sup>1</sup>		

#### **Product Instructions:**

Following best local practice, apply T-band over an open furrow, in-furrow as a spray, or as a banded spray over the row targeting the plant bases and surrounding soil. Thorough coverage of these areas is important for good control.

#### **Specific Use Restrictions:**

Do not apply more than 0.1 pound active ingredient per acre per season as an at-plant application.

Do not apply more than 0.2 pound active ingredient per acre per season including at-plant plus foliar application of other bifenthrin products.

#### **EGGPLANT (FOLIAR)**

	USE RATES
PESTS	fl. oz. product/acre
	(lb. a.i./acre)
Armyworm	
Cabbage Looper	
Colorado Potato Beetle	
Corn Earworm	
Cucumber Beetle	
European Corn Borer	
Flea Beetle	2.4 – 7.4
Plant Bug	(0.033-0.10)
Stink Bug	
Thrips	
Tomato Hornworm	
Tomato Pinworm	
Vegetable Leafminer	
Whitefly	
Banks Grass Mite	
Carmine Mite	5.9 – 7.4
Lygus spp.	(0.08-0.10)
Pacific Spider Mite	(0.00-0.10)
Two-spotted Spider Mite	

<sup>&</sup>lt;sup>1</sup>Army cutworm, Cutworm spp., True Armyworm, or Armyworm spp.: Apply as broadcast to soil surface.

Apply this product in a minimum of 10 gallons per acre with ground equipment or in a minimum of 2 gallons of finished spray per acre by aircraft. When applying by air, 1-2 quarts of emulsified oil may be substituted for equivalent amounts of water in the finished spray. Thorough coverage is important for good control.

#### **Specific Use Restrictions:**

Do not apply more than 0.2 pound active ingredient per acre per season.

Do not make applications less than 7 days apart.

Do not apply within 7 days of harvest.

#### **GRAPES (FOLIAR)**

PESTS	USE RATES fl. oz. product/acre (lb. a.i./acre)
Eastern Grape Leafhopper Variegated Leafhopper Western Grape Leafhopper Cutworms Grape Berry Moth Japanese Beetle (Adult)	3.7 – 7.4 (0.05-0.10)
Black Vine Weevil Glassywinged Sharpshooter Two-spotted Spider Mite	7.4 (0.10)

#### **Product Instructions:**

Apply this product in a minimum of 25 gallons per acre with ground equipment or in a minimum of 10 gallons of finished spray per acre by aircraft. When applying by air, 1-2 quarts of emulsified oil may be substituted for equivalent amounts of water in the finished spray. Thorough coverage is important for good control. When pest pressure is moderate to severe, use higher rate within the rate range.

#### **Specific Use Restrictions:**

Do not apply more than 0.10 pound active ingredient per acre per season.

Do not apply within 30 days of harvest.

#### **HOPS (FOLIAR)**

PESTS	USE RATES fl. oz. product/acre (lb. a.i./acre)
Aphids Armyworm Cutworm Leafroller Looper	4.4 – 7.4 (0.06-0.10)
Root Weevil <sup>1</sup>	3.7 – 7.4 (0.05-0.10)
Two-spotted Spider Mite <sup>2</sup>	7.4 (0.10)

#### **Product Instructions:**

Apply this product in a minimum of 100-150 gallons per acre with ground equipment in early season, or 200-250 gallons of spray per acre in late season. Thorough coverage is important for good control.

# **Specific Use Restrictions:**

<sup>&</sup>lt;sup>1</sup>Root Weevil: Direct spray at lower 3 feet of plant plus 1.5-2 feet of soil on both sides of plant row.

<sup>&</sup>lt;sup>2</sup>Two-spotted Spider Mite: Apply no less than 7.4 fl. oz. (0.10 lb. a.i. per acre) per application in a minimum of 10 gallons of finished spray per acre by aircraft.

Do not exceed 0.1 pound active ingredient per acre per application.

Do not apply more than 0.3 pound active ingredient per acre per season.

Use of ultra low volume (ULV) application on hops is prohibited.

Do not apply within 14 days of harvest.

Do not make applications less than 21 days apart.

#### LETTUCE, HEAD (AT PLANT, BANDED)

	USE RATES	
PESTS	BROADCAST	IN-FURROW / T-BAND
PE313	fl. oz. product/acre	fl. oz. product/1000 row ft.
	(lb. a.i./acre)	(lb. a.i./1000 row ft.)
Corn Rootworm (larvae)	5.9 – 7.4	0.34 - 0.42
Com Rootworm (larvae)	(0.08 - 0.1)	(0.0046-0.0057)
Grubs		
Lettuce Root Aphid	2.9 – 5.9	0.17 - 0.34
Root Maggot	(0.04 - 0.08)	(0.0023 - 0.0046)
Wireworm		
Army Cutworm <sup>1</sup>		
Armyworm spp. <sup>1</sup>	2.9 – 5.9	0.17 - 0.34
Bulb Mites <sup>1</sup>	(0.04 – 0.08)	(0.0023 - 0.0046)
Cutworm spp. <sup>1</sup>	(0.04 – 0.08)	(0.0025 - 0.0046)
True Armyworm <sup>1</sup>		

#### **Product Instructions:**

Following best local practice, apply T-band over an open furrow, in-furrow as a spray, or as a banded spray over the row targeting the plant bases and surrounding soil. Thorough coverage of these areas is important for good control.

#### **Specific Use Restrictions:**

Do not apply more than 0.1 pound active ingredient per acre per season as an at-plant application.

Do not apply more than 0.5 pound active ingredient per acre per season including at-plant plus foliar application of other bifenthrin products.

# **LETTUCE, HEAD (FOLIAR)**

PESTS	USE RATES fl. oz. product/acre (lb. a.i./acre)
Aphids	
Armyworm	
Cabbage Maggot	
Corn Earworm	
Cucumber Beetle	
Cutworm	
Diamondback Moth	
Flea Beetle	2.4 – 7.4
Grasshoppers	(0.033-0.10)
Imported Cabbageworm	
Leafhopper	
Looper	
Saltmarsh Caterpillar	
Stink Bug spp.	
Thrips	
Tobacco Budworm	

<sup>&</sup>lt;sup>1</sup>Army cutworm, Cutworm spp., True armyworm, Armyworm spp., bulb mites: Apply broadcast to soil surface.

Whitefly	
Carmine Mite	5.9 – 7.4
Lygus spp.	(0.08-0.10)
Two-spotted Spider Mite	(0.08-0.10)

Apply this product in a minimum of 15 gallons per acre with ground equipment or in a minimum of 5 gallons of finished spray per acre by aircraft. When applying by air, 1-2 quarts of emulsified oil may be substituted for equivalent amounts of water in the finished spray. Thorough coverage is important for good control.

#### **Specific Use Restrictions:**

Do not apply more than 0.5 pound active ingredient per acre per season including at plant plus foliar applications of all bifenthrin products.

Do not make applications less than 7 days apart.

Do not apply within 7 days of harvest.

# **OKRA (AT PLANT, BANDED)**

	US	USE RATES	
PESTS	BROADCAST	IN-FURROW / T-BAND	
PESIS	fl. oz. product/acre	fl. oz. product/1000 row ft.	
	(lb. a.i./acre)	(lb. a.i./1000 row ft.)	
Wireworm			
Armyworm	2.9 – 5.9	0.17 - 0.34	
Cutworm	(0.04 - 0.08)	(0.0023 - 0.0046)	
Flea Beetle (larvae)			

#### **Product Instructions:**

Following best local practice, apply T-band over an open furrow, in-furrow as a spray, or as a banded spray over the row targeting the plant bases and surrounding soil. Thorough coverage of these areas is important for good control.

# **Specific Use Restrictions:**

Do not apply more than 0.1 pound active ingredient per acre per season as an at-plant application.

Do not apply more than 0.2 pound active ingredient per acre per season including at-plant plus foliar application of other bifenthrin products.

#### **PEARS (FOLIAR)**

PESTS	USE RATES fl. oz. product/acre (lb. a.i./acre)
Aphids	
Codling Moths	
Cutworms	
Green Fruitworms	
Leafhoppers	
Leafminers	2.9 – 14.7
Leafroller	(0.04-0.2)
Lygus spp.	(0.04-0.2)
Plant Bugs	
Plum Curculio	
San Jose Scale Crawlers	
Stink Bugs	
Tarnished Plant Bugs	

Two-spotted Spider Mite	4.4 – 14.7
Yellow Mite	(0.06-0.2)
Furancan Red Mita	5.9 – 14.7
European Red Mite	(0.08-0.2)

Apply this product in a minimum of 10 gallons of finished spray per acre by aircraft or in a minimum of 50 gallons per acre with ground equipment as a concentrate or 200 gallons of spray per acre as a dilute. Thorough coverage is important for good control.

#### **Specific Use Restrictions:**

Do not apply more than 0.5 pound active ingredient per acre per season, with no more than 0.45 pound active per acre applied after petal fall.

Do not make applications less than 30 days apart.

Do not graze livestock in treated orchards or cut treated cover crops for feed.

Do not apply within 14 days of harvest.

#### PEPPERS, BELL & NON-BELL (AT PLANT, BANDED)

	US	SE RATES
PESTS	BROADCAST	IN-FURROW / T-BAND
PESIS	fl. oz. product/acre	fl. oz. product/1000 row ft.
	(lb. a.i./acre)	(lb. a.i./1000 row ft.)
Rootworm larvae	5.9 – 7.4	0.34 - 0.42
Rootworm larvae	(0.08 - 0.1)	(0.0046-0.0057)
Flea beetle (larvae)		
Grubs		
Pepper Maggot	2.9 – 5.9	0.17 - 0.34
Root Aphid	(0.04 - 0.08)	(0.0023 - 0.0046)
Root Maggot		
Wireworm		
Army Cutworm <sup>1</sup>		
Armyworm spp. <sup>1</sup>	2.9 – 5.9	0.17 - 0.34
Cutworm spp. 1	(0.04 – 0.08)	(0.0023 - 0.0046)
Stalk Borer <sup>1</sup>	(0.04 – 0.08)	(0.0025 - 0.0046)
True Armyworm <sup>1</sup>		

#### **Product Instructions:**

Following best local practice, apply T-band over an open furrow, in-furrow as a spray, or as a banded spray over the row targeting the plant bases and surrounding soil. Thorough coverage of these areas is important for good control.

#### **Specific Use Restrictions:**

Do not apply more than 0.1 pound active ingredient per acre per season as an at-plant application.

Do not apply more than 0.2 pound active ingredient per acre per season including at-plant plus foliar application of other bifenthrin products.

# PEPPERS, BELL & NON-BELL (FOLIAR)

PESTS	USE RATES fl. oz. product/acre (lb. a.i./acre)
Aphids	
Armyworm	2.4 – 7.4
Corn Earworm	(0.033-0.10)
Cucumber Beetle	

<sup>&</sup>lt;sup>1</sup>Army cutworm, Cutworm spp., True armyworm, Armyworm spp., Stalk Borer: Apply broadcast to soil surface.

Cutworm	
European Corn Borer	
Flea Beetle	
Leafhopper	
Leafminer	
Looper	
Pepper Weevil	
Stink Bugs	
Thrips	
Tobacco Budworm	
Whitefly	
Lygus spp.	
Broad Mite	5.9 – 7.4
Carmine Mite	(0.08-0.10)
Two-spotted Spider Mite	

Apply this product in a minimum of 10 gallons per acre with ground equipment or in a minimum of 2 gallons of finished spray per acre by aircraft. Thorough coverage is important for good control.

#### **Specific Use Restrictions:**

Do not apply more than 0.2 pound active ingredient per acre per season.

Do not make applications less than 7 days apart.

Do not apply within 7 days of harvest.

# **SOD FARMS (FOLIAR)**

PESTS	USE RATES fl. oz. product/acre (lb. a.i./acre)	USE RATES fl. oz. product/1000 ft² (lb. a.i./1000 ft²)
Armyworms <sup>1</sup> Cutworms <sup>1</sup> Sod Webworm <sup>1</sup>	2.4 – 3.8 (0.033 – 0.051)	0.06 - 0.09 (0.0008 - 0.0012)
Annual Bluegrass Weevil (Hyperodes) <sup>2</sup> (Adult) Banks Grass Mite <sup>6</sup> Billbugs (Adult) <sup>3</sup> Black Turfgrass Ataenius (Adult) <sup>4</sup> Crickets Earwigs Grasshoppers Mealybugs Mites <sup>6</sup>	3.8 – 7.5 (0.051 – 0.102)	0.09 – 0.17 (0.0012 – 0.0023)
Ants Chinch Bugs <sup>5</sup> Japanese Beetle (Adult) Mole Cricket (Adult) <sup>7</sup> Mole Cricket (Nymph) <sup>8</sup>	7.5 – 15.0 (0.102 – 0.204)	0.17 – 0.34 (0.0023 – 0.0047)

#### **Product Instructions:**

Following best local practice, apply as a broadcast treatment. Use higher volumes up to 10 gallons of carrier per 1000 square feet to get uniform coverage when treating dense grass foliage. For best foliage wetting, apply tank-mixed with a compatible surfactant. Thorough coverage is important for good control.

Irrigation to treated area within a few hours following application can improve efficacy to sub-surface pests including mole crickets.

Recommended rates should be effective for all pests listed in above table. However, if pest populations are extremely high or maximum residual control is required, VCP-03 may be applied at a maximum of 0.34 fl. oz. per 1000 square feet per application.

<sup>1</sup>Armyworms, Cutworms and Sod Webworms: To ensure optimum control, delay watering (irrigation) or mowing for 24 hours after application. If the grass area is being maintained at a mowing height of greater than 1 inch, then higher application rates (up to 0.34 fl. oz. per 1000 square feet per application) may be required during periods of high pest pressure.

<sup>2</sup>Annual Bluegrass Weevil (adult): For optimal control, time applications to coincide with adult weevil movement from overwintering sites to grass areas. Weevil migration time usually begins at Forsythia bloom and ends with the full bloom of the flowering dogwood (*Cornus florida*). Consult with your local extension specialist or certified crop advisor for the most accurate and up-to-date emergence and application timing.

<sup>3</sup>Billbug (adult): For best results, apply VCP-03 when adults are first observed. Consult with your local extension specialist or certified crop advisor for the most accurate and up-to-date emergence and application timing.

<sup>4</sup>Black Turfgrass Ataenius (adult): In order to control the first and second generations, apply product in May and July. First application should coincide with blooming horse chestnut (*Aesculus hippocastanum*) and Vanhoutte spirarea (*Spiraea vanhouttei*). Second (July) application should coincide with Rose of Sharon (*Hibiscus syriacus*) bloom.

<sup>5</sup>Chinch Bug: Chinch bugs are found in the thatch layer and infest the base of grass plants. To optimize penetration of VCP-03 to chinch big location, irrigate (water) grass after treatment. If grass area is being maintained at a long mowing height or if thatch layer is excessive, apply at a higher volume. High application rates (up to 0.34 fl. oz. per 1000 square feet per application) can be used to control difficult midsummer nymph and adult populations.

<sup>6</sup>Mites: For optimal control, a second application, five to seven days after the first, may be necessary.

<sup>7</sup>**Mole Cricket (adult):** For best results on this very active insect pest, apply as late in the day as possible. Water grass after treatment with up to 0.5 inches of water. If soil is dry, irrigate before treatment to bring insects closer to the surface and insecticide treatment. Treat at peak egg hatch to ensure larvae are suppressed at hatch. Consult with your local extension specialist or certified crop advisor for the most accurate and up-to-date emergence and application timing.

<sup>8</sup>Mole Cricket (nymph): If areas were under high mole cricket pressure in the spring, then treat immediately before peak egg hatch. Emerging insect nymphs are both close to soil surface and more susceptible to insecticide, while older and larger nymphs cause more damage and are more difficult to control. Higher application rates and more frequent applications may need to be made to control the older nymphs. For best results, apply as late in the day as possible, and water grass after treatment with up to 0.5 inches of water. If soil is dry, irrigate before treatment to bring insects closer to the surface and insecticide treatment.

#### **Specific Use Restrictions:**

New York State Restrictions - Turf and Ornamental:

#### NOT FOR USE ON SOD FARMS IN THE STATE OF NEW YORK.

In New York State, this product may not be applied to turf within 100 feet of a coastal marsh (or of a water body [lake, pond, river, stream, wetland, or drainage ditch]).

In New York State, do make a single repeat application of this product if there are signs of renewed insect activity, but not sooner than two weeks after the first application.

# **SOYBEANS (AT PLANT, BANDED)**

		USE RATES	
PESTS	BROADCAST	IN-FURROW / T-BAND	
PE313	fl. oz. product/acre	fl. oz. product/1000 row ft.	
	(lb. a.i./acre)	(lb. a.i./1000 row ft.)	
Do otrugarm lange	5.9 – 7.4	0.34 - 0.42	
Rootworm larvae	(0.08 - 0.1)	(0.0046-0.0057)	
Grape Colapsis			
Grubs	2.9 – 5.9	0.17 - 0.34	
Root Maggot	(0.04 – 0.08)	(0.0023 - 0.0046)	
Seedcorn Maggot	(0.04 – 0.08)	(0.0023 - 0.0040)	
Wireworm			
Army Cutworm <sup>1</sup>			
Armyworm spp. <sup>1</sup>	2.9-5.9	0.17 - 0.34	
Cutworm spp. <sup>1</sup>	(0.04 - 0.08)	(0.0023 - 0.0046)	
True Armyworm <sup>1</sup>			

#### **Product Instructions:**

Following best local practice, apply T-band over an open furrow, in-furrow as a spray, or as a banded spray over the row targeting the plant bases and surrounding soil. Thorough coverage of these areas is important for good control.

#### **Specific Use Restrictions:**

Do not apply more than 0.1 pound active ingredient per acre per season as an at-plant application.

Do not apply more than 0.2 pound active ingredient per acre per season including at-plant plus foliar application of other bifenthrin products.

# **SOYBEAN (PPI & PRE)**

	USE RATES	
PESTS	fl. oz. product/acre	
	(lb. a.i./acre)	
Armyworm spp.		
Black Cutworm	3.5 – 4.6	
Seedcorn Maggot	(0.047 to 0.062)	
White Grub	Pre-Plant Incorporated (PPI)	
Wireworm		
Armyworm spp.	2.9	
Black Cutworm	(0.04)	
Stalkborer	Pre-Emergence (PRE)	

#### **Product Instructions:**

**PPI Treatments**: PPI herbicides can be tank mixed with VCP-03. Test for compatibility with jar tests or similar methods before use. Follow all use rate recommendations. Incorporate VCP-03 close to seed planting depth up to a max depth of 3 inches.

**PRE Treatments**: PRE herbicides can be tank mixed with VCP-03. Test for compatibility with jar tests or similar methods before use and follow all use rate recommendations.

#### **Specific Use Restrictions:**

Do not apply more than 0.1 pound active ingredient per acre per season as PPI or PRE application.

Do not apply more than 0.2 pound active ingredient per acre per season including at-plant plus foliar application of other bifenthrin products.

<sup>&</sup>lt;sup>1</sup>Army cutworm, Cutworm spp., True armyworm, Armyworm spp.: Apply broadcast to soil surface.

# **SPINACH (AT PLANT, BANDED)**

	USE RATES	
PESTS	BROADCAST	IN-FURROW / T-BAND
PESIS	fl. oz. product/acre	fl. oz. product/1000 row ft.
	(lb. a.i./acre)	(lb. a.i./1000 row ft.)
Rootworm larvae	5.9 – 7.4	0.34 - 0.42
Rootworm larvae	(0.08 - 0.1)	(0.0046-0.0057)
Grubs		
Root Maggot	2.9 – 5.9	0.17 - 0.34
Seedcorn Maggot	(0.04 - 0.08)	(0.0023 - 0.0046)
Wireworm		
Army Cutworm <sup>1</sup>		
Armyworm spp. 1	2.9 – 5.9	0.17 - 0.34
Cutworm spp. 1	(0.04 - 0.08)	(0.0023 - 0.0046)
True Armyworm <sup>1</sup>		

#### **Product Instructions:**

Following best local practice, apply T-band over an open furrow, in-furrow as a spray, or as a banded spray over the row targeting the plant bases and surrounding soil. Thorough coverage of these areas is important for good control.

#### **Specific Use Restrictions:**

Do not apply more than 0.1 pound active ingredient per acre per season as an at-plant application.

Do not apply more than 0.4 pound active ingredient per acre per season including at-plant plus foliar application of other bifenthrin products.

# SPINACH (FOLIAR)

	USE RATES
PESTS	fl. oz. product/acre
	(lb. a.i./acre)
Armyworms	
Colorado Potato Beetle	
Corn Earworm	
Cucumber Beetles	
Cutworms	
European Corn Borer	
Flea Beetles	2.4 – 7.4
Leafminers	(0.033-0.10)
Loopers	
Pepper Weevil	
Thrips	
Tomato Hornworm	
Tomato Pinworm	
Whitefly <sup>1</sup>	
Broad Mite	
Banks Grass Mite	
Carmine Mite	5.9 – 7.4
Lygus spp.	(0.08-0.10)
Pacific Spider Mite	
Two-spotted Spider Mite	

# **Product Instructions:**

Apply this product in 10-50 gallons per acre with ground equipment or 5-50 gallons of finished spray per acre by aircraft.

<sup>&</sup>lt;sup>1</sup>Army cutworm, Cutworm spp., True armyworm, Armyworm spp.: Apply broadcast to the soil surface.

<sup>1</sup>Whitefly: apply foliar treatments of VCP-03 by group or air at rates of up to 0.1 lb active per acre per application at minimum 7-day intervals up to a maximum of 4 applications.

#### **Specific Use Restrictions:**

Do not apply more than 0.4 pound active ingredient per acre per season.

Do not make applications less than 7 days apart.

Do not apply within 7 days of harvest.

# **TOBACCO (PRE-TRANSPLANT & AT-TRANSPLANT)**

	U	SE RATES
PESTS	BROADCAST	AT TRANSPLANT
PESIS	fl. oz. product/acre	fl. oz. product/1000 row ft.
	(lb. a.i./acre)	(lb. a.i./1000 row ft.)
Armyworm spp.		
Cutworm spp.		
Flea Beetle (larvae)	2.9 – 7.4	2.9 – 7.4
Mole Cricket		
Stalkborer	(0.04 - 0.1)	(0.04 - 0.1)
White Grubs		
Wireworm		

#### **Product Instructions:**

**Pre-transplant soil applications**: Use of suitable equipment to incorporate into top 4 inches of the soil is required to control below ground pests.

**At-transplant water treatment application:** Apply 0.0625 to 0.1 lb. a.i./ acre per application in a water treatment application volume of 10 to 200 gal/A.

#### **Specific Use Restrictions:**

Do not apply more than 0.2 pound active ingredient per acre per season.

May be tank mixed with herbicides approved for tobacco use, test first for compatibility.

# **TOBACCO (FOLIAR)**

PESTS	USE RATES fl. oz. product/acre (lb. a.i./acre)
Aphid spp.*  Armyworm spp.  Chinch Bugs  Cutworm spp.  Flea Beetle (adult)  Grasshoppers  Green Bugs  Japanese Beetles  Stink Bugs  Tarnished Plant Bugs  Thrips  Whiteflies	2.9 – 7.4 (0.04 – 0.1)
Hornworm	5.9 – 7.4
Tobacco Budworm	(0.08 – 0.10)
Lygus spp.	7.4
Spider Mites	(0.1)

#### **Product Instructions:**

Apply 0.04 to 0.10 lb ai/acre per foliar application up to, and including, layby in a minimum of 10 gallons per acre.

#### **Specific Use Restrictions:**

Do not make more than 2 foliar applications per season.

Do not apply more than 0.2 pounds active ingredient per acre per season.

Do not apply later than layby.

May be tank mixed with other herbicides approved for tobacco use. Test for compatibility before application.

#### **TOMATOES (AT PLANT, BANDED)**

	USE RATES	
PESTS	BROADCAST	IN-FURROW / T-BAND
PESIS	fl. oz. product/acre	fl. oz. product/1000 row ft.
	(lb. a.i./acre)	(lb. a.i./1000 row ft.)
Rootworm larvae	5.9 – 7.4	0.34 - 0.42
ROOLWOITH larvae	(0.08 - 0.1)	(0.0046-0.0057)
Flea Beetle (larvae)		
Grubs	2.9 – 5.9	0.17 - 0.34
Root Maggot	(0.04 - 0.08)	(0.0023 - 0.0046)
Wireworm		
Army Cutworm <sup>1</sup>		
Armyworm spp. <sup>1</sup>	2.9 – 5.9	0.17 - 0.34
Cutworm spp. <sup>1</sup>	(0.04 – 0.08)	(0.0023 - 0.0046)
Stalkborer <sup>1</sup>	(0.04 – 0.08)	(0.0025 - 0.0046)
True Armyworm <sup>1</sup>		

#### **Product Instructions:**

Following best local practice, apply T-band over an open furrow, in-furrow as a spray, or as a banded spray over the row targeting the plant bases and surrounding soil. Thorough coverage of these areas is important for good control.

#### **Specific Use Restrictions:**

Do not apply more than 0.1 pound active ingredient per acre per season as an at-plant application.

Do not apply more than 0.32 pound active ingredient per acre per season including at-plant plus foliar application of other bifenthrin products.

# **TOMATOES (FOLIAR)**

PESTS	USE RATES fl. oz. product/acre (lb. a.i./acre)
Aphids	
Armyworms (Beet Armyworm, Fall Armyworm, Southern Yellow-striped	
Armyworm)	
Bean Leaf Beetle	
Cabbageworm	
Carmine Mite	
Cloverworm	2.4 – 5.9
Corn Earworm	(0.033-0.08)
Corn Rootworm	
Cucumber Beetles	
Cutworms	
Diamondback Moth	
European Corn Borer	
Flea Beetles	

<sup>\*</sup> See resistance management statement under "Directions for Use" section.

<sup>&</sup>lt;sup>1</sup>Army cutworm, Armyworm spp., Cutworm spp., Stalkborer, True Armyworm: Apply broadcast to soil surface.

Flea Hopper	
Grasshopper	
Japanese Beetle (Adult)	
Leafhoppers	
Loopers	
Lygus spp.	
Melonworm	
Pea Weevil	
Pea Leaf Weevil	
Pickleworm	
Plant Bug	
Rindworm	
Salt March Caterpillar	
Sap Beetle	
Seedpod Weevil	
Squash Bugs	
Stink Bug spp.	
Tobacco Budworm	
Tarnished Plant Bug	
Thrips	
Two-spotted Spider Mite	
Whitefly	

Apply in water as necessary for insect control using a minimum of 15 gallons of finished spray per acre with ground equipment. Thorough coverage is essential to achieve control.

#### **Specific Use Restrictions:**

Do not make applications less than 10 days apart.

A maximum of 4 applications may be applied per season.

Do not apply within 1 day of harvest.

Do not apply more than 0.32 pound active ingredient per acre per season including at-plant plus foliar applications of all bifenthrin products

#### TUBEROUS AND CORM VEGETABLES (AT PLANT, BANDED)

Potato, Sweet potato, Arracacha, Arrowroot, Chinese artichoke, Jerusalem artichoke, Edible canna, Cassava (bitter and sweet), Chayote (root), Chufa, Dasheen (taro), Ginger, Leren, Tanier, Turmer, Yam bean, True yam

PESTS	USE RATES fl. oz. product/acre (lb. a.i./acre)
Grape Colapsis	
Rootworms	11.0 – 22.1
Sweet Potato Flea Beetle	_
White Grub	(0.15 – 0.30)
Wireworm	

#### **Product Instructions:**

VCP-03 may be applied as a soil incorporated broadcast, directed bed spray or a T-band spray into the planting furrow for the control of wireworms, rootworms, sweet potato flea beetles and white grubs. Apply VCP-03 at the rate of 0.15 to 0.3 pounds active ingredient per acre in a minimum of 10 gallons per acre of spray.

#### **Specific Use Restrictions:**

Do not apply more than 0.3 pound active ingredient per acre per season as an at-plant application.

Do not apply more than 0.5 pound active ingredient per acre per season including at-plant plus foliar application of other bifenthrin products.

# **TUBEROUS AND CORM VEGETABLES (LAY-BY)**

Potato, Sweet potato, Arracacha, Arrowroot, Chinese artichoke, Jerusalem artichoke, Edible canna, Cassava (bitter and sweet), Chayote (root), Chufa, Dasheen (taro), Ginger, Leren, Tanier, Turmer, Yam bean, True yam

PESTS	USE RATES fl. oz. product/acre (lb. a.i./acre)
Grape Colapsis	
Rootworms	11.0 – 22.1
Sweet Potato Flea Beetle	_
White Grub	(0.15 – 0.30)
Wireworm	

#### **Product Instructions:**

VCP-03 may be applied as one or more soil directed and incorporated treatments at cultivation or lay-by for the control of wireworms, rootworms and white grubs. Apply VCP-03 to the drill area and incorporate by cultivation equipment set to throw soil towards the drill area. Apply VCP-03 at a rate of 0.15 to 0.3 pound active ingredient per acre in a minimum of 10 gallons per acre of spray.

# **Specific Use Restrictions:**

Do not apply more than 0.5 pound active ingredient per acre per season including soil plus foliar application of other bifenthrin products.

#### STORAGE AND DISPOSAL

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

#### **Pesticide Storage**

Store in original containers only. Keep container closed when not in use. Do not store near food or feed. In case of spill on floor or paved surfaces, mop and remove to chemical waste storage area until proper disposal can be made if product cannot be used according to the label.

# **Pesticide Disposal**

Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative of the nearest EPA Regional Office for guidance.

# **Container Handling:**

Metal or Plastic Container [less than or equal to 5 gallons] Non-refillable container. Do not reuse or refill this container. Triple rinse container 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. Then offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill or by other procedures approved by state and local authorities.

# IMPORTANT INFORMATION READ BEFORE USING PRODUCT

#### Conditions of Sale and Limitation of Warranty and Liability:

**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions beyond the control of Vive Crop Protection or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold Vive Crop Protection and Seller harmless for any claims relating to such factors.

Seller warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the Directions for Use when used in accordance with the directions under normal conditions of use.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, VIVE CROP PROTECTION MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE, NOR ANY OTHER EXPRESS OR IMPLIED WARRANTIES WITH RESPECT TO THE SELECTION, PURCHASE, OR USE OF THIS PRODUCT.

Any warranties, express or implied, having been made are inapplicable if this product has been used contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to (or beyond the control of) Seller or Vive Crop Protection, and Buyer assumes the risk of any such use.

To the extent consistent with applicable law, Vive Crop Protection or Seller shall not be liable for any incidental, consequential or special damages resulting from the use or handling of this product. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF VIVE CROP PROTECTION AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF VIVE CROP PROTECTION OR SELLER, THE REPLACEMENT OF THE PRODUCT.

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