



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

November 19, 2021

Tim Formella  
Senior Product Registration Manager  
FMC Corporation  
2929 Walnut Street  
Philadelphia, PA 19104

Subject: PRIA Label Amendment – Add avocado crop, incorporation of ID label mitigation  
Product Name: Hero Insecticide  
EPA Registration Number: 279-3315  
Application Dates: 6/1/2016 and 2/18/2021  
Decision Numbers: 518153, 518154, 570897

Dear Mr. Formella:

The application referred to above, submitted under the Federal Insecticide, Fungicide and Rodenticide Act, as amended is acceptable under FIFRA sec 3 (c)(5). You must submit and/or cite all data required for registration/reregistration/registration review of your product when the Agency requires all registrants of similar products to submit such data.

The Agency, in accordance with the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, has completed reviewing all of the information submitted with your application to support the Registration Review of the above referenced product in connection with the Bifenthrin Interim Decision, and has concluded that your submission is acceptable.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one (1) copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 12 months from the date of this letter. After 12 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

Should you wish to add/retain 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.

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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.

Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. If you have any questions, you may contact Hester Dingle at 202-566-2596 or via email at [dingle.hester@epa.gov](mailto:dingle.hester@epa.gov).

Sincerely,

A handwritten signature in black ink, appearing to read 'J S', with a long horizontal flourish extending to the right.

Jennifer Saunders, PhD, Chief  
Invertebrate & Vertebrate Branch 1  
Registration Division (7505P)  
Office of Pesticide Programs

Enclosure

**RESTRICTED USE PESTICIDE**

**Due to toxicity 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 Applicator's certification.

ZETA-CYPERMETHRIN	GROUP	3A	INSECTICIDE
BIFENTHRIN	GROUP	3A	INSECTICIDE



EPA Reg. No. 279-3315

EPA Est. 279-

Active Ingredients:	By Wt.
Zeta-Cypermethrin*	3.75%
Bifenthrin**	11.25%
Other Ingredients***:	85.00%
	100.0%

HERO® Insecticide contains 0.309 pound zeta-cypermethrin and 0.927 pound bifenthrin per gallon.

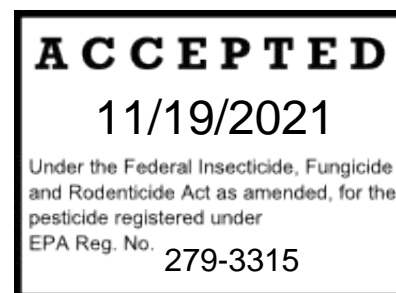
\* *Cis/trans* isomer ratio: Max 75% (±) *cis* and Min. 25% (±) *trans*

\*\* *Cis* isomers 97% minimum; *trans* isomers 3% maximum.

\*\*\* Contains Petroleum Distillates

**KEEP OUT OF REACH OF CHILDREN  
CAUTION**

See other panels for additional precautionary information.



**Net Contents:** \_\_\_\_\_

Sold By  
FMC Corporation  
2929 Walnut Street  
Philadelphia, PA 19104

<b>FIRST AID</b>	
<b>IF SWALLOWED</b>	Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give <b>any</b> liquid to the person. Do not give anything by mouth to an unconscious person.
<b>IF ON SKIN OR CLOTHING</b>	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.
<b>IF IN EYES</b>	Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes. Call a poison control center for treatment advice.
<b>IF INHALED</b>	Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth to mouth if possible. Call a poison control center or doctor for further treatment advice.
<b>NOTE TO PHYSICIAN</b>	
Contains petroleum distillates. Vomiting may cause aspiration pneumonia.	
<b>HOTLINE NUMBER</b>	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-(800)-331-3148 for Emergency Assistance.	

## PRECAUTIONARY STATEMENTS

### Hazards to Humans and Domestic Animals

#### CAUTION

Harmful if swallowed, inhaled or absorbed through the skin. Causes moderate eye irritation. Avoid breathing vapor or spray mist. Do not get on skin, in eyes or on clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. 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:

**Handlers who may be exposed to the dilute through application or other tasks must wear:**

- Long-sleeved shirt and long pants.
- Chemical-resistant gloves made of barrier laminate; or viton  $\geq$  14 mils.
- Shoes plus socks.

**Handlers who may be exposed to the concentrate through mixing, loading, application or other tasks must wear:**

- Long-sleeved shirt and long pants.
- Chemical-resistant gloves made of barrier laminate; or viton  $\geq$  14 mils.
- Shoes plus socks.
- Protective eyewear.

### User Safety Requirements

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.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

### User Safety Recommendations

Wash thoroughly with soap and water after handling. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

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

## Engineering Control Statements

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 (540CFR 170.240(d)(4-6), the handler PPE requirements may be reduced or modified as specified in the WPS.

## Environmental Hazards

This pesticide is extremely toxic to fish, aquatic invertebrates, oysters and shrimp. 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 apply 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.

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

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 if bees are visiting the treatment area. **Protect pollinating insects by following label directions intended to minimize drift and to reduce risk to these organisms.**

## Physical or Chemical Hazards

Combustible: Do not use or store near heat or open flame.

## DIRECTIONS FOR USE

### Restricted Use Pesticide

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

## Resistance Management

For resistance management, HERO Insecticide contains a Group 3A insecticide. Any insect population may contain individuals naturally resistant to HERO Insecticide and other Group 3A insecticides. The resistant individuals may dominate the insect population if this group of insecticides is used repeatedly in the same fields. Appropriate resistance-management strategies should be followed. To delay insecticide resistance, take the following steps:

- Rotate the use of HERO Insecticide or other Group 3A insecticides within a growing season, or among growing seasons, with different groups that control the same pests.
- Use tank mixtures with insecticides from a different group that are equally effective on the target pest when such use is permitted. Do not rely on the same mixture repeatedly for the same pest population. Consider any known cross-resistance issues (for the targeted pests) between the individual components of a mixture. In addition, consider the following recommendations provided by the Insecticide Resistance Action Committee (IRAC):
  - Individual insecticides selected for use in mixtures should be highly effective and be applied at the rates at which they are individually registered for use against the target species.
  - Mixtures with components having the same IRAC mode of action classification are not recommended for insect resistance management.
  - When using mixtures, consider any known cross-resistance issues between the individual components for the targeted pests.
  - Mixtures become less effective if resistance is already developing to one or both active ingredients, but they may still provide pest management benefits.
  - The insect resistance management benefits of an insecticide mixture are greatest if the two components have similar periods of residual insecticidal activity. Mixtures of insecticides with unequal periods of residual insecticidal activity may offer an insect resistance management benefit only for the period where both insecticides are active.
- Adopt an integrated pest management program for insecticides that includes scouting, uses historical information related to pesticide use, crop rotation, record keeping, and which considers cultural, biological, and other chemical control practices.
- Monitor after application for unexpected target pest survival. If the level of survival suggests the presence of resistance, consult with your local university specialist or certified pest control advisor.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or IPM recommendations for the specific site and pest problems in your area.

## AGRICULTURAL USE REQUIREMENTS

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

Do not 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 barrier laminate or viton  $\geq$  14 mils, and shoes plus socks.

## CHEMIGATION USE DIRECTIONS

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

Crop injury, lack of effectiveness, or illegal 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. 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 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 also 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 that will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Apply HERO Insecticide continuously for the duration of the water application. Dilute HERO Insecticide in sufficient volume to ensure accurate application over the area to be treated.

Use the appropriate amount of water to carry the product to the target pest. Agitation is not required when a suitable diluent is used.

## VEGETATIVE FILTER STRIPS

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

Only apply products containing bifenthrin and/or zeta-cypermethrin onto fields where a maintained vegetative filter strip of **at least 25 feet** exists between the field edge and where a down gradient aquatic habitat exists. This minimum required width of 25 feet may be reduced or removed under the following conditions:

- For Western irrigated agriculture, a maintained vegetative filter strip of at least 10 feet wide is required. Western irrigated agriculture is defined as irrigated farmland in the following states:  
WA, OR, CA, ID, NV, UT, AZ, MT, WY, CO, NM, and TX (west of I-35).
  - For Western irrigated agriculture, if a sediment control basin is present, a vegetative filter strip is not required.
- In all other areas, a vegetative filter strip with a minimum width of 25 feet is required, unless the following conditions are met. The vegetative filter strip requirement may be reduced from 25 feet to 15 feet if at least one of the following applies:
  - The area of application is considered prime farmland (as defined in 7 CFR § 657.5)
  - Conservation tillage is being implemented on the area of application. Conservation tillage is defined as any system that leaves at least 30% of the soil surface covered by residue after planting. Conservation tillage practices can include mulch-till, no-till, or strip-till.
  - A functional terrace system is maintained on the area of application.
  - Water and sediment control basins for the area of application are functional and maintained.
  - The area of application is less than or equal to 10 acres.

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

<https://www.regulations.gov/document?D=EPA-HQ-OPP-2008-0331-0175>

## BUFFER ZONES TO WATER BODIES

**Ground Application**– 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).

**Ultra Low Volume (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).

**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.

### Mandatory Spray Drift Management

#### Aerial Applications:

- Do not release spray at a height greater than 10 feet above the vegetative canopy, unless a greater application height is necessary for pilot safety.
- Applicators are required to select nozzle and pressure that deliver medium or coarser droplets (ASABE S641)
- Do not apply when wind speeds exceed 15 mph at the application site. If the wind speed is greater than 10 mph, the boom length must be 65% or less of the wingspan for fixed wing aircraft and 75% or less of the rotor diameter for helicopters. Otherwise, the boom length must be 75% or less of the wingspan for fixed-wing aircraft and 90% or less of the rotor diameter for helicopters.
- If the wind speed is 10 mph or less, applicators must use ½ swath displacement upwind at the downwind edge of the field. When the windspeed is between 11-15 mph, applicators must use ¾ swath displacement upwind at the downwind edge of the field.
- Do not apply during temperature inversions.

#### Airblast Applications:

- Sprays must be directed into the canopy.
- Do not apply when wind speeds exceed 15 mph at the application site.
- User must turn off outward pointing nozzles at row ends and when spraying outer row.
- Do not apply during temperature inversions.

#### Ground Boom Applications:

- User must only apply with the nozzle height recommended by the manufacturer, but no more than 4 feet above the ground or crop canopy.
- Applicators are required to select nozzle and pressure that deliver medium or coarser droplets (ASABE S572).
- Do not apply when wind speeds exceed 15 mph at the application site.
- Do not apply during temperature inversions.

## Spray Drift Advisories

**THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT.  
BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.**

### IMPORTANCE OF DROPLET SIZE

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

#### Controlling Droplet Size – Ground Boom

- Volume – Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- Pressure – Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- Spray Nozzle – Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

#### Controlling Droplet Size – Aircraft

- Adjust Nozzles – Follow nozzle manufacturers recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.

#### **BOOM HEIGHT – Ground Boom**

- For ground equipment, the boom should remain level with the crop and have minimal bounce.

#### **RELEASE HEIGHT – Aircraft**

- Higher release heights increase the potential for spray drift.

#### **SHIELDED SPRAYERS**

- Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

#### **TEMPERATURE AND HUMIDITY**

- When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

#### **TEMPERATURE INVERSIONS**

- Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicate an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.

#### **WIND**

- Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.
- Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

#### **NON-TARGET ORGANISM ADVISORY STATEMENT (Environmental Hazards):**

- This product is highly toxic to bees and other pollinating insects exposed to direct treatment or to residues in/on blooming crops or weeds. Protect pollinating insects by following label directions intended to minimize drift and reduce pesticide risk to these organisms.

### **Pollinator Best Management Practices**

Following best management practices can help reduce the risk to terrestrial pollinators. Examples of best management practice include applying pesticides in the evening and at night when pollinators are not foraging and checking to confirm hive locations before spraying. For additional resources on pollinator best management practices, visit <https://www.epa.gov/pollinator-protection/find-best-management-practices-protect-pollinators>

**Managed pollinator protection plans** are developed by states/tribes to promote communication between growers, landowners, farmers, beekeepers, pesticide users, and other pest management professionals to reduce exposure of bees to pesticides. If available, visit state plans for additional information on how to protect pollinators.

#### **How to Report Bee Kills**

It is recommended that users contact both state lead agency and the U.S. Environmental Protection Agency to report bee kills due to pesticide application. Bee kills can be reported to EPA at [beekill@epa.gov](mailto:beekill@epa.gov). To contact your state lead agency, see the current listing of state pesticide regulatory agencies at the National Pesticide Information Center's website: [http://npic.orst.edu/reg/state\\_agencies.html](http://npic.orst.edu/reg/state_agencies.html)

### **GENERAL INSTRUCTIONS**

Use low labeled rates under light to moderate infestation. Use higher labeled rates for heavy insect pressure. The rate of application is variable according to insect pressure, timing of spray and field scouting. Do not exceed maximum labeled rate.

### **Rotational Crops**

Crops for which bifenthrin and zeta-cypermethrin tolerances exist may be rotated at any time. All other crops may be rotated 30 days following the final application of HERO Insecticide.

### **Tank-Mixture**

HERO Insecticide may be applied in tank mixtures with other products approved for use on the crops listed for use on this label. Observe all restrictions and precautions that appear on the labels of these products. Test for compatibility of products before mixing.



**HERO Insecticide contains the pyrethroids zeta-cypermethrin and bifenthrin.**

**Maximum Usage When Applying Zeta-Cypermethrin and Cypermethrin Products to the Same Crop Within the Same Season.**

Do not apply more than the maximum yearly total for either zeta-cypermethrin or cypermethrin products when used alone; do not apply more than the combined maximum yearly total for both products as outlined in the table below.

Crop	Maximum Yearly Total (lb ai/A)		Maximum Yearly Total (lb ai/A) When Applying Cypermethrin and Zeta- cypermethrin Products to the Same Crop	Maximum Yearly Total (lb ai/A) When Applying Zeta- cypermethrin Products to the Same Crop
	Zeta-cypermethrin *		Zeta-cypermethrin* plus Cypermethrin **	Zeta-cypermethrin*
	<i>Mustang Maxx Insecticide</i>	<i>HERO Insecticide</i>		
Canola	0.15	0.0265	NA	0.15
Cotton	0.15	0.1125	0.4	0.15
Field Corn	0.1	0.1	NA	0.1
Sweet Corn	0.15	0.067	NA	0.15
Peanut	0.15	0.1	NA	0.15
Potato	0.15	0.1125	NA	0.15
Eggplant, okra, pepper	0.15	0.067	NA	0.15
Tomato	0.15	0.1	NA	0.15
Head Lettuce	0.15	0.1125	0.6	0.15
Head and Stem Brassica	0.15	0.1125	0.6	0.15
Leafy Brassica	0.15	0.1125	0.4	0.15
Soybean	0.15	0.1	NA	0.3
Cucurbits	0.15	0.1		0.15
Dried and Succulent Peas and Beans	0.15	0.067	NA	0.15
Root and Tuber vegetables	0.15	0.1125	NA	0.15
Blueberries	0.15	0.1125	NA	0.15
Caneberries	0.15	0.067	NA	0.15
Grape	0.15	0.025	NA	0.15
Pecans	0.125	0.1125	0.5	0.125
Avocado	0.15	0.0938	NA	0.15

\* *Mustang Maxx Insecticide*; *HERO Insecticide*; or any zeta-cypermethrin product approved for crop use.  
 \*\*Any cypermethrin product approved for crop use.  
 NA = Not Applicable.

**Maximum Usage When Applying Bifenthrin Products to the Same Crop Within the Same Year.**

Crop	Maximum Yearly Total (lb ai/A)		
	Bifenthrin		When Applying <b>Bifenthrin*</b> Products Plus <b>HERO Insecticide</b> to the Same Crop
	<b>HERO Insecticide</b>	<b>Bifenthrin*</b>	
Canola	0.08	0.08	0.08
Cotton	0.3375	0.5	0.5
Field Corn	0.3	0.3	0.3
Sweet Corn	0.2	0.2	0.2
Peanut	0.3	0.5	0.5
Potato	0.3375	0.5	0.5
Eggplant, okra, pepper	0.2	0.2	0.2
Tomato	0.315	0.32	0.32
Head Lettuce	0.3375	0.5	0.5
Head and Stem Brassica	0.3375	0.5	0.5
Leafy Brassica	0.3375	0.4	0.4
Soybean	0.3	0.3	0.3
Cucurbits	0.3	0.3	0.3
Dried and Succulent Peas and Beans	0.2	0.2	0.2
Root and Tuber vegetables	0.3375	0.5	0.5
Blueberries	0.3375	0.5	0.5
Caneberries	0.2	0.2	0.2
Grape	0.075	0.1	0.1
Pecans	0.3375	0.5	0.5
Avocado	0.2812	0.2812	0.2812
*Any bifenthrin product approved for crop use.			

# FIELD CROPS

## Canola, Crambe and Rapeseed

Pests Controlled	Rate of Application
Cutworm spp. Flea beetle	2.6 – 5.5 fl oz/A of product
Aphid spp. Armyworm, fall* Armyworm, southern Armyworm, true Armyworm, yellowstriped Diamondback moth** Fleahopper Grasshopper Looper spp. Seedpod weevil Stinkbug spp.	4.0 – 5.5 fl oz/A of product
<p><b>Restrictions</b></p> <p><b>PHI:</b> Do not apply within 35 days of harvest.</p> <p><b>Application Interval:</b> Do not make applications less than 14 days apart.</p> <p><b>Maximum Amount per Application:</b> Do not apply more than 5.5 fl oz/A of product t (0.013 lb/A zeta-cypermethrin + 0.04 lb/A bifenthrin) per application.</p> <p><b>Maximum Amount of HERO Insecticide allowed per Year:</b> Do not apply more than 11 fl oz/A of product (0.026 lb/A zeta-cypermethrin + 0.08 lb/A bifenthrin) per year.</p> <p>Do not make more than 2 applications per year when applications are made at the maximum rate.</p> <p><b>Refer to the maximum usage tables when applying more than one product containing either zeta-cypermethrin or bifenthrin to this crop.</b></p> <p><b>Remarks</b></p> <p>Apply as required by scouting. Base timing and frequency of applications on insect populations reaching locally determined economic threshold levels.</p> <p>Apply by ground or air equipment using sufficient water to obtain full coverage of foliage (minimum of 10 gallons of finished spray per acre by ground and 2 gallons of finished spray per acre by air).</p> <p>*Coverage is essential for control of this pest. For heavy outbreaks, tank mix with another product that is labeled for this pest.</p> <p>**Pyrethroid resistance is common for these pests. Please consult your local or state agricultural authority to determine if resistance pest populations are in your area. If so, refer the resistance management statement in the DIRECTION FOR USE section of this label.</p>	

## Cotton

Pests Controlled	Rate of Application
European Corn Borer Grasshoppers Soybean (Banded) Thrips Tobacco Thrips	3.6 – 10.3 fl oz/A of product
Armyworm, Fall* Armyworm, Yellowstriped Bagrada bug Boll Weevil Bollworm Cabbage Looper Cotton Aphid Cotton Fleahopper Cotton Leafperforator Cutworms Saltmarsh Caterpillar Southern Garden Leafhopper Stink Bugs Tobacco Budworm*	5.2 – 10.3 fl oz/A of product
Carmine Spider Mite Lygus Species Pink Bollworm Twospotted Spider Mite Whitefly	10.3 fl oz/A of product

### RESTRICTIONS

**PHI:** Do not apply within 14 days of harvest.

**Maximum Amount per Application:** Do not apply more than 10.3 fl oz/A of product (0.025 lb/A zeta-cypermethrin + 0.075 lb/A bifenthrin) per application.

**Maximum Amount of HERO Insecticide allowed per Year:** Do not apply more than 46.35 fl oz/A of product (0.112 lb/A zeta-cypermethrin + 0.336 lb/A bifenthrin) per year.

Do not make more than 4 applications per year when applications are made at the maximum rate.

**Refer to the maximum usage tables when applying more than one product containing either zeta-cypermethrin or bifenthrin to this crop.**

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

### REMARKS

HERO Insecticide may be applied in water or refined vegetable oil (soybean/cottonseed).

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

**ULV Application:** Apply the labeled rate of HERO Insecticide in refined vegetable oil in a minimum of 1 quart of finished spray per acre with aircraft calibrated to give adequate coverage.

**To Control Boll Weevil:** Apply HERO Insecticide at an interval of 3 to 4 days until pest numbers are reduced to acceptable levels. Do not exceed maximum labeled rate.

**To Control Mites and Aphids:** Apply when pests first appear. Repeat as necessary to maintain control. Do not exceed maximum labeled rate.

\*Coverage is essential for control of this pest. For heavy outbreaks, tank mix with another product that is labeled for this pest.

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

**At Plant Use**

<b>Pests Controlled</b>		<b>Rate of Application</b>
Armyworm spp. (true armyworm) Common Stalk Borer Cutworm spp. (Army cutworm, Black cutworm) Seed cord maggot Root aphids (Corn root aphid) White grub Wireworm spp.		4.0 – 10.3 fl oz/A of product
<p><b>RESTRICTIONS</b></p> <p><b>PHI:</b> Do not apply within 30 days of harvest for grain and stover and 60 days of harvest for forage.</p> <p><b>Maximum Amount per Application:</b> Do not apply more than 10.3 fl oz/A of product (0.025 lb/A zeta-cypermethrin + 0.075 lb/A bifenthrin) as an at-plant application.</p> <p><b>Maximum Amount of HERO Insecticide allowed per Year:</b> Do not apply more than 41.2 fl oz/A of product (0.099 lb/A zeta-cypermethrin + 0.298 lb/A bifenthrin) per year including at-plant plus foliar applications for this product.</p> <p>Do not make more than 4 applications per year when applications are made at the maximum rate.</p> <p><b>Refer to the maximum usage tables when applying more than one product containing either zeta-cypermethrin or bifenthrin to this crop.</b></p> <p><b>REMARKS</b></p> <p><b>For Seed cord maggot, Root aphids, White grubs and Wireworms:</b> Apply in-furrow or in a 3 – 4-inch T-Band (band over the open furrow) at planting in a minimum of 3 – 7 gallons per acre.</p> <p><b>For Armyworm spp. and Cutworm spp:</b> Apply at planting on the soil surface in a 5 – 7-inch band in a minimum of 3 – 7 gallons of finished spray per acre or broadcast in a minimum of 10 gallons of finished spray per acre.</p> <p>Use higher labeled rate for increased residual pest control.</p>		
Row spacing (inches)	fl oz/ 1000 linear feet	lb ai / 1000 linear feet
30	0.23 – 0.59	0.0006 zeta-cypermethrin + 0.0017 bifenthrin to 0.0014 zeta-cypermethrin + 0.0043 bifenthrin
20	0.15 – 0.39	0.0004 zeta-cypermethrin + 0.0011 bifenthrin to 0.0009 zeta-cypermethrin + 0.0028 bifenthrin
15	0.115 – 0.30	0.0003 zeta-cypermethrin + 0.0008 bifenthrin to 0.0007 zeta-cypermethrin + 0.0022 bifenthrin

**Field Corn (Grain and Silage), Popcorn,  
Field Corn Grown for Seed.**

**Foliar Use**

Pests Controlled	Rate of Application
Army Cutworm Bean Leaf Beetle Common Stalk Borer Cutworm Species Flea Beetle Grasshoppers Green Cloverworm Hop Vine Borer Western Bean Cutworm	2.6 – 6.1 fl oz/A of product
Aphid Species Armyworm, Fall* Armyworm, Southern Armyworm, True Armyworm, Yellowstriped Cereal Leaf Beetle Chinch Bug Corn Blotch leafminer (adult) Corn Earworm Corn leaf hopper Corn Rootworm Adult Corn silk fly Cucumber Beetle Adult European Corn Borer False chinch bug Greenbug Hornworms Japanese Beetle Adult Meadow Spittlebug Sap Beetle Southern Corn Leaf Beetle Southwestern Corn Borer Stinkbugs Tobacco Budworm** Webworms	4.0 – 10.3 fl oz/A of product
Banks Grass Mite Carmine Mite Lygus Species Twospotted Spider Mite	10.3 fl oz/A of product

**RESTRICTIONS**

**Maximum Amount per Application:** Do not apply more than 10.3 fl oz/A of product (0.025 lb/A zeta-cypermethrin + 0.075 lb/A bifenthrin) per application.

**Maximum Amount of HERO Insecticide allowed per Year:** Do not apply more than 41.2 fl oz/A of product (0.099 lb/A zeta-cypermethrin + 0.298 lb/A bifenthrin) per year, including at-plant plus foliar applications.

Do not make more than 4 applications per year when applications are made at the maximum rate.

**Refer to the maximum usage tables when applying more than one product containing either zeta-cypermethrin or bifenthrin to this crop.**

Do not apply within 30 days of harvest for grain and stover and 60 days for forage.

Do not graze livestock in treated areas or cut treated crops for feed within 30 days of the last application.

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.

**REMARKS**

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

**To control ear-attacking pests:** Apply HERO Insecticide just before silking and repeat as necessary to maintain control. Do not exceed maximum labeled rate.

**Southwestern Corn Borer, European Corn Borer:** Make application for corn borer control with initial application at or shortly before egg hatch.

**For control of other insect pests:** Apply when pests first appear and repeat as necessary. Do not exceed maximum labeled rate.

**For Control of 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 Twospotted 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 labeled rates will be necessary for heavier initial populations and corn under heat or drought stress. Field experience with dimethoate at 0.5 lb ai/A in tank mixture has demonstrated good control under these conditions.

**For mite control in Texas, New Mexico, Oklahoma, and Arizona:** Apply in a minimum of 5 gallons of finished spray per acre by aircraft or in a minimum of 10 gallons of finished spray per acre with ground equipment.

\*Coverage is essential for control of this pest. For heavy outbreaks, tank mix with another product that is labeled for this pest.

\*\*Pyrethroid resistance is common for these pests. Please consult your local or state agricultural authority to determine if resistance pest populations are in your area. If so, refer the resistance management statement in the DIRECTION FOR USE section of this label.

**Sweet Corn (Grain and Silage),  
Sweet Corn Grown For Seed**

**Foliar Use Only**

Pests Controlled	Rate of Application
Aphid spp. Army Cutworm Armyworm, Beet Armyworm, Fall* Armyworm, Southern Armyworm Species Armyworm, True Armyworm, Yellowstriped Cereal Leaf Beetle Chinch Bug Common Stalk Borer Corn blotch leafminer (adult) Corn Earworm Corn Rootworm Adult Corn Silk Fly Cucumber Beetle Adult Cutworm Species European Corn Borer False Chinch bug Flea Beetle Grasshoppers Greenbug Japanese Beetle Adult Leafhoppers Sap Beetle Southern Corn Leaf Beetle Southwestern Corn Borer Stinkbugs Webworms Western Bean Cutworm	4.0 – 10.3 fl oz/A of product
Banks Grass Mite Carmine Mite Lygus Species Twospotted Spider Mite	10.3 fl oz/A of product



**RESTRICTIONS**

**PHI:** Do not apply within 3 days of harvest

**Maximum Amount per Application:** Do not apply more than 10.3 fl oz/A of product (0.025 lb/A zeta-cypermethrin + 0.075 lb/A bifenthrin) per application.

**Maximum Amount of HERO Insecticide allowed per Year:** Do not apply more than 27.39 fl oz/A of product (0.066 lb/A zeta-cypermethrin + 0.198 lb/A bifenthrin) per year.

Do not make more than 2 applications per year when applications are made at the maximum rate.

**Refer to the maximum usage tables when applying more than one product containing either zeta-cypermethrin or bifenthrin to this crop.**

Do not graze livestock in treated areas or cut treated crops for feed within 3 days of the last application.

Apply at a minimum 3 to 5-day intervals or as needed for control.

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.

**REMARKS**

**General:** Apply in a minimum of 2 gallons of finished spray per acre by air or in a minimum of 20 gallons of finished spray per acre with ground equipment. When applying by air, 1 to 2 quarts of emulsified oil may be substituted for 1 to 2 quarts of water in the finished spray. Thorough coverage is essential to achieve control.

**To control ear-attacking pests:** Apply HERO Insecticide when silking begins and repeat as necessary to maintain control. Do not exceed maximum labeled rate.

**Southwestern Corn Borer, European Corn Borer:** Make 2 applications for corn borer control with the initial application at or shortly before egg hatch.

**For control of other insect pests:** Apply when pests first appear and repeat as necessary. Do not exceed maximum labeled rate.

**For Control of 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 Twospotted 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 labeled rates will be necessary for heavier initial populations and corn under heat or drought stress.

\*Coverage is essential for control of this pest. For heavy outbreaks, tank mix with another product that is labeled for this pest.

**Peanut**

Pests Controlled	Rate of Application
Lesser cornstalk borer** Thrips (adults) Spider mite spp.	10.3 fl oz/A of product
Aphid spp. Armyworm, fall* Armyworm, southern Armyworm, true Armyworm, yellowstriped Bean leaf beetle Corn earworm Cutworm spp. Grasshopper spp. Green cloverworm Leafhopper spp. Lesser cornstalk borer Looper spp. Red-necked peanut worm Southern corn rootworm (adult) Stinkbug spp	4.0 – 10.3 fl oz/A of product

Threecornered alfalfa hopper Vegetable weevil Velvetbean caterpillar Whitefringed beetle (adult)	
<p><b>RESTRICTIONS</b></p> <p><b>PHI:</b> Do not apply within 14 days of harvest.</p> <p><b>Application Interval:</b> Do not make applications less than 14 days apart.</p> <p><b>Maximum Amount per Application:</b> Do not apply more than 10.3 fl oz/A of product (0.025 lb/A zeta-cypermethrin + 0.075 lb/A bifenthrin) per application.</p> <p><b>Maximum Amount of HERO Insecticide allowed per Year:</b> Do not apply more than 41.2 fl oz/A of product (0.099 lb/A zeta-cypermethrin + 0.298 lb/A bifenthrin) per year.</p> <p>Do not make more than 4 applications per year when applications are made at the maximum rate.</p> <p><b>Refer to the maximum usage tables when applying more than one product containing either zeta-cypermethrin or bifenthrin to this crop.</b></p> <p>Do not graze livestock in treated area.          Do not use treated vines or hay for animal feed.          Do not feed green immature plants and peanut hay to livestock.</p> <p><b>Remarks</b></p> <p>Apply as required by scouting. Timing and frequency of applications should be based upon insect populations reaching locally determined economic threshold levels.</p> <p>Apply by ground or air equipment using sufficient water to obtain full coverage of foliage (minimum of 10 gallons of finished spray per acre by ground and 2 gallons of finished spray per acre by air).</p> <p>Follow appropriate spray drift precautions on this label.          *Coverage is essential for control of this pest. For heavy outbreaks, tank mix with another product that is labeled for this pest.          ** Aids in control.</p>	

## Potato

Pests Controlled	Rate of Application
Cutworm spp. Flea beetle spp. Grasshopper	2.6 – 6.1 fl oz/A of product
Aphid spp. Armyworm, fall* Armyworm, southern Armyworm, true Armyworm, yellowstriped Banded cucumber beetle Chinch bug Colorado potato beetle* Cucumber beetle (adult) European cornborer False chinch bug Grasshopper spp. Looper spp. Potato leafhopper Sugarcane beetle Sweetpotato flea beetle Sweetpotato weevil (adult) Potato tuberworm**	4.0 – 10.3 fl oz/A of product
Plant bug spp. Twospotted spider mite	10.3 fl oz/A of product

**RESTRICTIONS**

**PHI:** Do not apply within 21 days of harvest.

**Application Interval:** Do not make applications less than 21 days apart.

**Maximum Amount per Application:** Do not apply more than 10.3 fl oz/A of product (0.025 lb/A zeta-cypermethrin + 0.075 lb/A bifenthrin) per application.

**Maximum Amount of HERO Insecticide allowed per Year:** Do not apply more than 46.35 fl oz/A of product (0.112 lb/A zeta-cypermethrin + 0.336 lb/A bifenthrin) per year, including soil applications.

Do not make more than 2 foliar applications per year.

**Refer to the maximum usage tables when applying more than one product containing either zeta-cypermethrin or bifenthrin to this crop.**

Leaves of Root and Tuber vegetables (except sugar beet tops) cannot be used for food or feed.

**Remarks**

Apply as required by scouting. Base timing and frequency of applications on insect populations reaching locally determined economic threshold levels.

Apply by ground or air equipment using sufficient water to obtain full coverage of foliage (minimum of 10 gallons of finished spray per acre by ground and 3 gallons of finished spray per acre by air).

Follow appropriate spray drift precautions on this label.

\*Coverage is essential for control of this pest. For heavy outbreaks, tank mix with another product that is labeled for this pest.

\*\* For Tuberworm control apply prior to harvest or senesce to adults and larvae tuberworms when economic thresholds are met.

## Soybeans

### Foliar Use

Pests Controlled	Rate of Application
Bean Leaf Beetle Cutworms Flea beetle Grasshoppers Green cloverworm Painted Lady (Thistle) Caterpillar Silverspotted Skipper	2.6 – 6.1 fl oz/A of product
Alfalfa Caterpillar Armyworm, fall* Armyworm, southern Armyworm, true Armyworm, yellowstriped Blister Beetle spp. Corn Earworm Corn Rootworm Adult Cowpea Curculio Cucumber Beetle Adult Dectes Stem Borer European Corn Borer False Chinch Bug Grape colaspis (adult) Hornworms Imported Cabbageworm Japanese beetle Adult Leaf Skeletonizer spp. Leafhoppers Leafminers Adults Lesser Cornstalk Borer Loopers Mexican Bean Beetle Pea Leaf Weevil Saltmarsh Caterpillar Seedcorn Maggot Adult Soybean Aphid Spittlebug Stink Bug Three-Cornered Alfalfa Hopper Thrips Tobacco Budworm** Velvetbean Caterpillar Webworm Woollybear Caterpillar	4.0 – 10.3 fl oz/A of product
Lygus Species Whitefly Thrips Two Spotted Spider Mite	10.3 fl oz/A of product

**RESTRICTIONS**

**PHI:** Do not apply within 21 days of harvest.

**Maximum Amount per Application:** Do not apply more than 10.3 fl oz/A of product (0.025 lb/A zeta-cypermethrin + 0.075 lb/A bifenthrin) per application.

**Maximum Amount of HERO Insecticide allowed per Year:** Do not apply more than 41.2 fl oz/A of product (0.099 lb/A zeta-cypermethrin + 0.298 lb/A bifenthrin) per year.

Do not make more than 4 applications per year when applications are made at the maximum rate.

**Refer to the maximum usage tables when applying more than one product containing either zeta-cypermethrin or bifenthrin to this crop.**

Do not make applications less than 30 days apart.

Do not graze or harvest treated soybean forage, straw, or hay for livestock feed.

**REMARKS**

Apply by ground or air equipment using sufficient water to obtain full coverage of foliage (minimum of 10 gallons of finished spray per acre by ground and 2 gallons of finished spray per acre by air).

Thorough coverage is essential to achieve control.

Apply as required by scouting. Base timing and frequency of applications on insect populations reaching locally determined economic threshold levels.

\*Coverage is essential for control of this pest. For heavy outbreaks, tank mix with another product that is labeled for this pest.

\*\*Pyrethroid resistance is common for this pest. Please consult your local or state agricultural authority to determine if resistance pest populations are in your area. If so, refer the resistance management statement in the DIRECTION FOR USE section of this label.

## Soybeans

### At-Plant Use

Pests Controlled		Rate of Application
Armyworm spp. (true armyworm) Cutworm spp. (Army cutworm) Grape colapsis Seed corn maggot Root aphids White grub Wireworm spp.		4.1 – 10.3 fl oz/A of product
<b>RESTRICTIONS</b> <b>PHI:</b> Do not apply within 21 days of harvest.  <b>Maximum Amount of HERO Insecticide allowed per Application:</b> Do not apply more than 10.3 fl oz/A of product (0.025 lb/A zeta-cypermethrin + 0.075 lb/A bifenthrin) per application.  <b>Maximum Amount of HERO Insecticide allowed per Year:</b> Do not apply more than 41.2 fl oz/A of product (0.099 lb/A zeta-cypermethrin + 0.298 lb/A bifenthrin) per year. Do not make more than 4 applications per year when applications are made at the maximum rate.  <b>REMARKS</b> <b>For Seed corn maggot, Root aphids, White grubs and Wireworms:</b> Apply in-furrow or in a 3 – 4 inch T-Band (band over the open furrow) at planting in a minimum of 2 – 7 gallons per acre.  <b>For Armyworm spp. and Cutworm spp:</b> Apply at planting on the soil surface in a 5 – 7-inch band in a minimum of 2 – 7 gallons per acre or broadcast in a minimum of 10 gallons per acre.  Use higher labeled dosage for increased residual pest control.		
Row spacing (inches)	fl oz/ 1000 linear feet	lb ai/ 1000 linear feet
30	0.23 - 0.59	0.0006 zeta-cypermethrin + 0.0017 bifenthrin to 0.0014 zeta-cypermethrin + 0.0043 bifenthrin
20	0.16 - 0.39	0.0004 zeta-cypermethrin + 0.0012 bifenthrin to 0.0009 zeta-cypermethrin + 0.0028 bifenthrin
15	0.12 - 0.29	0.0003 zeta-cypermethrin + 0.0009 bifenthrin to 0.0007 zeta-cypermethrin + 0.0021 bifenthrin

## Soybeans

### PPI and PRE Uses

Pests Controlled		Rate of Application
<b>Pre-Plant Incorporated (PPI)</b>		
Black Cutworm White Grub Wireworm Seedcorn Maggot Armyworm spp.		4.1 – 10.3 fl oz/A of product
<b>Pre-Emergence (PRE)</b>		
Black Cutworm Armyworm spp. Stalkborer		2.6 – 6.1 fl oz/A of product

**RESTRICTIONS**

**PHI:** Do not apply within 21 days of harvest.

**Maximum Amount of HERO Insecticide allowed per Application:** Do not apply more than 10.3 fl oz/A of product (0.025 lb/A zeta-cypermethrin + 0.075 lb/A bifenthrin) per application.

**Maximum Amount of HERO Insecticide allowed per Year:** Do not apply more than 41.2 fl oz/A of product (0.099 lb/A zeta-cypermethrin + 0.298 lb/A bifenthrin) per year.

Do not make more than 4 applications per year when applications are made at the maximum rate.

**REMARKS**

For **PPI treatments**, HERO Insecticide can be tank mixed and applied with PPI herbicides. Do not incorporate Hero Insecticide any deeper than the intended planting depth and no deeper than 3 inches. Incorporate to a depth close to the intended seed planting depth.

For **PRE treatments**, HERO Insecticide may be applied and can be tank mixed and applied with PRE herbicides.

**VEGETABLES****Cucurbits**

Cantaloupes, Citron melon; muskmelon; watermelon Chayote (fruit); Chinese waxgourd; Cucumber; gherkin; gourd, edible; Momordica spp.; pumpkin; squash, summer; squash, winter.

Pests Controlled	Rates of Application
Aphid spp. Armyworm, fall* Armyworm, southern Armyworm, true Armyworm, yellowstriped Bagrada bug Cabbage looper Corn earworm Cucumber beetle Cutworm spp. Grasshopper Leafhopper spp. Melonworm Pickleworm Rindworm Squash bug Squash vine borer Stink bug spp. Tobacco budworm**	4.0 – 10.3 fl oz/A of product
Carmine mite Plant bug spp. Twospotted spider mite Whitefly	10.3 fl oz/A of product

**RESTRICTIONS**

**PHI:** Do not apply within 3 days of harvest.

**Application Interval:** Do not make applications less than 7 days apart.

**Maximum Amount per Application:** Do not apply more than 10.3 fl oz/A of product (0.025 lb/A zeta-cypermethrin + 0.075 lb/A bifenthrin) per application.

**Maximum Amount of HERO Insecticide allowed per Year:** Do not apply more than 41.2 fl oz/A of product (0.099 lb/A zeta-cypermethrin + 0.298 lb/A bifenthrin) per year.

Do not make more than 2 applications after bloom.

**Refer to the maximum usage tables when applying more than one product containing either zeta-cypermethrin or bifenthrin to this crop.**

**Remarks**

Apply in a minimum of 5 gallons of finished spray per acre by air or in a minimum of 20 gallons of finished spray per acre with ground equipment. When applying by air, 1 to 2 quarts of emulsified oil may be substituted for 1 to 2 quarts of water in the finished spray. Thorough coverage is essential to achieve control.

\*Coverage is essential for control of this pest. For heavy outbreaks, tank mix with another product that is labeled for this pest.

\*\*Pyrethroid resistance is common for this pest. Please consult your local or state agricultural authority to determine if resistance pest populations are in your area. If so, refer the resistance management statement in the DIRECTION FOR USE section of this label.

**Eggplant, Okra, Pepper (Bell & Non-Bell) and Pepino**

Pests Controlled	Rate of Application
Armyworm, Fall* Armyworm, Southern Armyworm, true Armyworm, Yellowstriped Bagrada bug Cabbage Looper Celery Leaf Tier Colorado Potato Beetle** Corn Earworm Cucumber Beetle Cutworm Species European Corn Borer Flea Beetle Garden Webworm Grasshoppers Hornworms Leafhopper Species Meadow Spittlebug Pepper Maggot Adult Pepper Weevil Southwestern Corn Borer Stink Bug Tobacco Budworm** Tomato Fruitworm Tomato Hornworm Tomato Pinworm Vegetable Leafminer	4.0 – 10.3 fl oz/A of product
Banks Grass Mite Carmine Mite Lygus Species Pacific Spider Mite Thrips Species Psyllid Species Twospotted Spider Mite Whitefly	10.3 fl oz/A of product



## RESTRICTIONS

**PHI:** Do not apply within 7 days of harvest.

**Maximum Amount per Application:** Do not apply more than 10.3 fl oz/A of product (0.025 lb/A zeta-cypermethrin + 0.075 lb/A bifenthrin) per application.

**Maximum Amount of HERO Insecticide allowed per Year:** Do not apply more than 27.39 fl oz/A per (0.066 lb/A zeta-cypermethrin + 0.198 lb/A bifenthrin) year.

Do not make more than 2 applications per year when applications are made at the maximum rate.

**Refer to the maximum usage tables when applying more than one product containing either zeta-cypermethrin or bifenthrin to this crop.**

Do not make applications less than 7 days apart.

## REMARKS

Apply in a minimum of 2 gallons of finished spray per acre by air or in a minimum of 10 gallons of finished spray per acre with ground equipment. When applying by air, 1 to 2 quarts of emulsified oil may be substituted for 1 to 2 quarts of water in the finished spray.

Thorough coverage is essential to achieve control.

\*Coverage is essential for control of this pest. For heavy outbreaks, tank mix with another product that is labeled for this pest is recommended for control.

\*\*Pyrethroid resistance is common for this pest. Please consult your local or state agricultural authority to determine if resistance pest populations are in your area. If so, refer the resistance management statement in the **DIRECTION FOR USE** section of this label.

## Tomato

Pests Controlled	Rate of Application
Armyworm, Fall* Armyworm, Southern Armyworm, Yellowstriped Armyworm, true Bagrada bug Cabbage Looper Celery Leaf Tier Colorado Potato Beetle** Corn Earworm Cucumber Beetle Cutworm Species European Corn Borer Flea Beetle Garden Webworm Grasshoppers Hornworms Leafhopper Species Meadow Spittlebug Pepper Maggot Adult Pepper Weevil Southwestern Corn Borer Stink Bug Tobacco Budworm** Tomato Fruitworm Tomato Hornworm Tomato Pinworm Vegetable Leafminer	4.0 – 10.3 fl oz/A of product
Banks Grass Mite Carmine Mite Lygus Species Pacific Spider Mite Psyllid species Thrips Species Twospotted Spider Mite Whitefly	10.3 fl oz/A of product
<p><b>RESTRICTIONS</b></p> <p><b>PHI:</b> Do not apply within 1 day of harvest.</p> <p><b>Maximum Amount per Application:</b> Do not apply more than 10.3 fl oz/A (0.025 lb/A zeta-cypermethrin + 0.075 lb/A bifenthrin) of product per application.</p> <p><b>Maximum Amount of HERO Insecticide allowed per Year:</b> Do not apply more than 43.26 fl oz/A of product (0.104 lb/A zeta-cypermethrin + 0.313 lb/A bifenthrin) per year.</p> <p>Do not make more than 4 applications per year when applications are made at the maximum rate.</p> <p><b>Refer to the maximum usage tables when applying more than one product containing either zeta-cypermethrin or bifenthrin to this crop.</b></p> <p>Do not make applications less than 10 days apart.</p> <p><b>REMARKS</b></p> <p>Apply in water as necessary for insect control using a minimum of 15 gallons of finished spray per acre with ground equipment and 2 gallons of finished spray per acre by air.</p> <p>*Coverage is essential for control of this pest. For heavy outbreaks, tank mix with another product that is labeled for this pest.</p> <p>**Pyrethroid resistance is common for this pest. Please consult your local or state agricultural authority to determine if resistance pest populations are in your area. If so, refer the resistance management statement in the DIRECTION FOR USE section of this label</p>	

## Head Lettuce

Pests Controlled	Rate of Application
Aphid Species Armyworm, fall* Armyworm, southern Armyworm, true Armyworm, yellowstriped Bagrada bug Chinch bug Corn Earworm Crickets Cucumber Beetle Cutworm Species Diamondback Moth** Flea Beetle Imported Cabbageworm Leafhopper Species Leafminer (adults) Loopers Saltmarsh Caterpillar Stink Bug Tobacco Budworm**	4.0 – 10.3 fl oz/A of product
Carmine Mite Lygus Species Onion Thrips Twospotted Spider Mite Whitefly	10.3 fl oz/A of product
<p><b>RESTRICTIONS</b></p> <p><b>PHI:</b> Do not apply within 7 days of harvest.</p> <p><b>Maximum Amount per Application:</b> Do not apply more than 10.3 fl oz/A of product (0.025 lb/A zeta-cypermethrin + 0.075 lb/A bifenthrin) per application.</p> <p><b>Maximum Amount of HERO Insecticide allowed per Year:</b> Do not apply more than 46.35 fl oz/A of product (0.112 lb/A zeta-cypermethrin + 0.336 lb/A bifenthrin) per year.</p> <p>Do not make more than 4 applications per year when applications are made at the maximum rate.</p> <p><b>Refer to the maximum usage tables when applying more than one product containing either zeta-cypermethrin or bifenthrin to this crop.</b></p> <p>Do not make applications less than 7 days apart.</p> <p><b>REMARKS</b></p> <p>Apply in water as necessary for insect control using a minimum of 15 gallons of finished spray per acre with ground equipment and 5 gallons of finished spray per acre by air. When applying by air, 1 to 2 quarts of emulsified oil may be substituted for 1 to 2 quarts of water in the finished spray.</p> <p>Thorough coverage is essential to achieve control.</p> <p>*Coverage is essential for control of this pest. For heavy outbreaks, tank mix with another product that is labeled for this pest.</p> <p>**Pyrethroid resistance is common for this pest. Please consult your local or state agricultural authority to determine if resistance pest populations are in your area. If so, refer the resistance management statement in the DIRECTION FOR USE section of this label.</p>	

## Head & Stem Brassica

Broccoli; Chinese Broccoli (gai lon, white flowering broccoli); Brussels Sprouts; Cauliflower, Cavalo broccoli; Kohlrabi; Cabbage; Chinese Cabbage (napa)

Pests Controlled	Rate of Application
Aphid Species Armyworm, fall* Armyworm, southern Armyworm, true Armyworm, Yellowstriped Bagrada bug Click Beetle (wireworm adult) Corn Earworm Crickets Cucumber Beetle Cutworm Species Diamondback Moth** Flea Beetle Grasshoppers Imported Cabbageworm Leafhopper Species Leafminer Species Loopers Saltmarsh Caterpillar Southern Cabbageworm Stink Bug Tobacco Budworm**	4.0 – 10.3 fl oz/A of product
Banks Grass Mite Cabbage Webworm Carmine Mite Lygus Species Pacific Spider Mite Thrips Species Twospotted Spider Mite Whitefly	10.3 fl oz/A of product
<p><b>RESTRICTIONS</b></p> <p><b>PHI:</b> Do not apply within 7 days of harvest.</p> <p><b>Maximum Amount per Application:</b> Do not apply more than 10.3 fl oz/A (0.025 lb/A zeta-cypermethrin + 0.075 lb/A bifenthrin) of product per application.</p> <p><b>Maximum Amount of HERO Insecticide allowed per Year:</b> Do not apply more than 46.35 fl oz/A of product (0.112 lb/A zeta-cypermethrin + 0.336 lb/A bifenthrin) per year.</p> <p>Do not make more than 4 applications after bloom.</p> <p><b>Refer to the maximum usage tables when applying more than one product containing either zeta-cypermethrin or bifenthrin to this crop.</b></p> <p>Do not make applications less than 7 days apart.</p> <p><b>REMARKS</b></p> <p>Apply in a minimum of 5 gallons of finished spray per acre by air or in a minimum of 15 gallons of finished spray per acre with ground equipment. When applying by air, 1 to 2 quarts of emulsified oil may be substituted for 1 to 2 quarts of water in the finished spray.</p> <p>Thorough coverage is essential to achieve control.                      *Coverage is essential for control of this pest. For heavy outbreaks, tank mix with another product that is labeled for this pest.</p> <p>**Pyrethroid resistance is common for this pest. Please consult your local or state agricultural authority to determine if resistance pest populations are in your area. If so, refer the resistance management statement in the DIRECTION FOR USE section of this label.</p>	

## Leafy Brassica - Crop Subgroup 4-16B

Broccoli raab; cabbage, Chinese (bokchoy); collards; kale; mizuna; mustard greens; mustard spinach; rape greens

Pest Controlled	Rate of Application
Aphid spp. Armyworm, fall* Armyworm, southern Armyworm, true Armyworm, yellowstriped Bagrada bug Cabbageworm Click beetle (wireworm adult) Corn earworm Crickets Cucumber beetle (adult) Cutworm spp. Diamondback moth** Flea beetle spp. Grasshopper spp. Imported cabbageworm Japanese beetle (adult) Leafhopper spp. Leafminer (adult) Looper spp. Saltmarsh caterpillar Stinkbug spp. Thrips Tobacco budworm** Wireworm (adult)	4.0 – 10.3 fl oz/A of product
Carmine mite Plant bug spp. Pacific spider mite Thrips Twospotted spider mite	10.3 fl oz/A of product
<p><b>RESTRICTIONS</b></p> <p><b>PHI:</b> Do not apply within 7 days of harvest.</p> <p><b>Application Interval:</b> Do not make applications less than 7 days apart.</p> <p><b>Maximum Amount per Application:</b> Do not apply more than 10.3 fl oz/A of product (0.025 lb/A zeta-cypermethrin + 0.075 lb/A bifenthrin) per application.</p> <p><b>Maximum Amount of HERO Insecticide allowed per Year:</b> Do not apply more than 46.35 fl oz/A of product (0.112 lb/A zeta-cypermethrin + 0.336 lb/A bifenthrin) per year.</p> <p>Do not make more than 4 applications per year when applications are made at the maximum rate.</p> <p><b>Refer to the maximum usage tables when applying more than one product containing either zeta-cypermethrin or bifenthrin to this crop.</b></p> <p><b>Remarks</b></p> <p>Apply as required by scouting. Base timing and frequency of applications on insect populations reaching locally determined economic thresholds.</p> <p>Apply by ground or air equipment using sufficient water to obtain full coverage of foliage (minimum of 15 gallons of finished spray per acre by ground and 5 gallons of finished spray per acre by air).                      Follow appropriate spray drift precautions on this label.</p> <p>*Coverage is essential for control of this pest. For heavy outbreaks, tank mix with another product that is labeled for this pest.</p> <p>**Pyrethroid resistance is common for this pest. Please consult your local or state agricultural authority to determine if resistance pest populations are in your area. If so, refer the resistance management statement in the DIRECTION FOR USE section of this label.</p>	

**Dried and Succulent Peas and Beans (except Soybeans)**

**Succulent Edible-Podded Pea and Bean or Succulent Shelled Pea and Bean** Dwarf Pea; Edible-pod Pea; Snow Pea; Sugar Snap Pea; Pigeon pea; Soybean (immature seed); Swordbean; English Pea; Garden Pea; Green Pea; Runner Bean; Snap Bean; Wax Bean; Asparagus Bean; Chinese Longbean; Moth Bean; Yardlong Bean; Jackbean; Lima Bean (Green); Broad Bean (Succulent); Blackeyed Pea; Southern Pea; Cowpea.

**Dried Shelled Pea and Bean (except Soybean)** Broad Bean (Fava Bean); Blackeyed Pea; Southern Pea; Grain Lupin; Sweet Lupin; White Lupin; White Sweet Lupin; Field Bean; Kidney Bean; Lima Bean (Dry); Navy Bean; Pinto Bean; Tepary Bean; Adzuki Bean; Catjang; Cowpea; Crowder Pea; Moth Bean; Mung Bean; Rice Bean; Urd Bean; Chickpea (Garbanzo Bean); Guar; Lablab bean; Lentil; Field pea; Pigeon Pea.

<b>Pests Controlled</b>	<b>Rate of Application</b>
Alfalfa Caterpillar Aphid Spp. Armyworm, Fall* Armyworm, Southern Armyworm, True Armyworm, Yellowstriped Bagrada bug Bean Leaf Beetle Blister Beetle Spp. Chinch bug Corn Earworm Corn Rootworm (adult) Cowpea Curculio Cucumber beetle (adult)** Cutworm spp. Dectes stem borer (adult)** European Corn Borer False Chinch Bug Flea Beetle spp. Grasshopper spp. Green Cloverworm Hornworm spp. Imported Cabbageworm Japanese beetle (Adult) Leaf Skeletonizer spp. Leafhopper spp. Leafminer spp. (adult) Lesser Cornstalk Borer Looper spp. Mexican Bean Beetle Painted Lady (Thistle) Caterpillar Pea Leaf Weevil Pea seed weevil Saltmarsh Caterpillar Sap Beetle Seedcorn Beetle Seedcorn Maggot Silverspotted Skipper Southwest Corn Borer Spittlebug Stinkbug spp. Threecornered alfalfa hopper Tobacco Budworm* Velvetbean Caterpillar Webworm Spp. Western Bean Cutworm	4.0 – 10.3 fl oz/A of product
Banks Grass Mite Carmine Mite Lygus Species Thrips Species Twospotted Spider Mite Whitefly	10.3 fl oz/A of product

**RESTRICTIONS**

**Succulent Edible-Podded Pea and Bean or Succulent Shelled Pea and Bean:**

**PHI:** Do not apply within 3 days of harvest.

**Application Interval:** Do not make applications less than 5 days apart.

**Dried Shelled Pea and Bean (except Soybean):**

**PHI:** Do not apply within 21 days of harvest.

**Application Interval:** Do not make applications less than 7 days apart.

**Maximum Amount per Application:** Do not apply more than 10.3 fl oz/A of product (0.025 lb/A zeta-cypermethrin + 0.075 lb/A bifenthrin) per application.

**Maximum Amount of HERO Insecticide allowed per Year:** Do not apply more than 27.39 fl oz/A of product (0.066 lb/A zeta-cypermethrin + 0.198 lb/A bifenthrin) per year. Do not make more than 2 applications per year when applications are made at the maximum rate.

**Refer to the maximum usage tables when applying more than one product containing either zeta-cypermethrin or bifenthrin to this crop.**

**REMARKS**

Apply in a minimum of 2 gallons of finished spray per acre by air or in a minimum of 10 gallons of finished spray per acre with ground equipment. When applying by air, 1 to 2 quarts of emulsified oil may be substituted for 1 to 2 quarts of water in the finished spray.

\*Coverage is essential for control of this pest. For heavy outbreaks, tank mix with another product that is labeled for this pest.

\*\*Pyrethroid resistance is common for this pest. Please consult your local or state agricultural authority to determine if resistance pest populations are in your area. If so, refer the resistance management statement in the DIRECTION FOR USE section of this label.

**Root and Tuber Vegetables – Crop Group 1 (except Sugar Beet, Garden Beet and Potato) :** Arracacha; Arrowroot; Artichoke (Chinese and Jerusalem); Edible Burdock; Edible Cannas; Carrot; Cassava (Bitter and Sweet); Celeriac (Celery Root); Chayote (Root); Turnip-Rooted Chervil; Chicory; Chufa; Dasheen (Taro); Ginger; Ginseng; Horseradish; Leren; Turnip-Rooted Parsley; Parsnip; Oriental Radish (Daikon); Rutabaga; Salsify (Oyster Plant); Black Salsify; Spanish Salsify; Skirret; Sweet Potato; Tanier (Cocoyam); Turmeric; Turnip; Yam Bean; and Yam (True)

Pests Controlled	Rate of Application
Cutworms Flea Beetle Grasshoppers	2.6 – 6.1 fl oz/A of product
Aphids Armyworm, fall* Armyworm, southern Armyworm, true Armyworm, yellowstriped Bagrada bug Banded Cucumber beetle Black flea beetle Chinch bug Colorado Potato Beetle Cucumber beetle Adult European cornborer False chinch bug Grasshopper spp. Japanese beetle June beetle Loopers Potato leafhopper Sugarcane beetle Sweetpotato flea beetle Sweetpotato weevil Adult Potato Tuberworm** Rootworm spp. (adults)	4.0 – 10.3 fl oz/A of product

Lygus species Two Spotted Spider Mite	10.3 fl oz/A of product
<p><b>RESTRICTIONS</b></p> <p><b>PHI:</b> Do not apply within 21 days of harvest.</p> <p>Do not make applications less than 21 days apart.</p> <p><b>Maximum Amount per Application:</b> Do not apply more than 10.3 fl oz/A of product (0.025 lb/A zeta-cypermethrin + 0.075 lb/A bifenthrin) per application.</p> <p><b>Maximum Amount of HERO Insecticide allowed per Year:</b> Do not apply more 46.35 fl oz/A of product (0.112 lb/A zeta-cypermethrin + 0.336 lb/A bifenthrin) per year, including soil application.</p> <p>Do not make more than 2 foliar applications per year.</p> <p><b>Refer to the maximum usage tables when applying more than one product containing either zeta-cypermethrin or bifenthrin to this crop.</b></p> <p>Leaves of Root and Tuber Vegetables (except sugar beet tops) cannot be used for food or feed.</p> <p><b>REMARKS</b></p> <p>Apply by ground or air equipment using sufficient water to obtain full coverage of foliage (minimum of 25 gallons of finished spray per acre by ground and 3 gallons of finished spray per acre by air).</p> <p>Thorough coverage is essential to achieve control.</p> <p>Apply as required by scouting. Base timing and frequency of applications on insect populations reaching locally determined economic threshold levels.</p> <p>* Please consult your local or state agricultural authority to determine if resistance pest populations are in your area. Refer to the resistance management statement in the DIRECTIONS FOR USE section of this label.</p> <p>*Coverage is essential for control of this pest. For heavy outbreaks, tank mix with another product that is labeled for this pest.</p> <p>**Pyrethroid resistance is common for this pest. Please consult your local or state agricultural authority to determine if resistance pest populations are in your area. If so, refer the resistance management statement in the DIRECTION FOR USE section of this label.</p> <p>** For Tuberworm control (adults and larvae) apply prior to harvest or senesce when economic thresholds are met.</p>	



## Garden Beet

Pests Controlled	Rate of Application
Cutworms Flea Beetle Grasshoppers	2.6 – 6.1 fl oz/A of product
Aphids Armyworm, fall* Armyworm, southern Armyworm, true Armyworm, yellowstriped Bagrada bug Banded Cucumber beetle Black flea beetle Chinch bug Colorado Potato Beetle Cucumber beetle Adult European corn borer False chinch bug Grasshopper spp. Japanese beetle June beetle Loopers Potato leafhopper Sugarcane beetle Sweetpotato flea beetle Sweetpotato weevil Adult Potato Tuberworm** Rootworm spp. (adults)	4.0 – 10.3 fl oz/A of product
Lygus species Two Spotted Spider Mite	10.3 fl oz/A of product

**RESTRICTIONS**

**PHI:** Do not apply within 1 day of harvest.

Do not make applications less than 7 days apart.

**Maximum Amount per Application:** Do not apply more than 10.3 fl oz/A of product (0.025 lb/A zeta-cypermethrin + 0.075 lb/A bifenthrin) per application.

**Maximum Amount of HERO Insecticide allowed per Season:** Do not apply more 46.35 fl oz/A of product (0.112 lb/A zeta-cypermethrin + 0.336 lb/A bifenthrin) per year, including soil application.

Do not make more than 2 foliar applications per year.

**Refer to the maximum usage tables when applying more than one product containing either zeta-cypermethrin or bifenthrin to this crop.**

Leaves cannot be used for food or feed.

**REMARKS**

Apply by ground or air equipment using sufficient water to obtain full coverage of foliage (minimum of 25 gallons of finished spray per acre by ground and 3 gallons of finished spray per acre by air).

Thorough coverage is essential to achieve control.

Apply as required by scouting. Base timing and frequency of applications on insect populations reaching locally determined economic threshold levels.

\* Please consult your local or state agricultural authority to determine if resistance pest populations are in your area. Refer to the resistance management statement in the DIRECTIONS FOR USE section of this label.

\*Coverage is essential for control of this pest. For heavy outbreaks, tank mix with another product that is labeled for this pest.

\*\*Pyrethroid resistance is common for this pest. Please consult your local or state agricultural authority to determine if resistance pest populations are in your area. If so, refer the resistance management statement in the DIRECTION FOR USE section of this label.

\*\* For Tuberworm control (adults and larvae) apply prior to harvest or senesce when economic thresholds are met.

**BUSHES, VINES and TREES****Blueberries**

Pests Controlled	Rate of Application
Aphid spp. Blueberry maggot Fruitworms Leaf hopper spp. Lecanium scale (crawlers) Plum curculio Oblique leafroller Red banded leafroller Spanworm Variegated leafroller	4.0 – 10.3 fl oz/A of product
Twospotted mite Carmine mite Pacific mite Lygus sp.	10.3 fl oz/A of product

**RESTRICTIONS**

**PHI:** Do not apply within 1 day of harvest.

**Application Interval:** Do not make applications less than 7 days apart.

**Maximum Amount per Application:** Do not apply more than 10.3 fl oz/A of product (0.025 lb/A zeta-cypermethrin + 0.075 lb/A bifenthrin) per application.

**Maximum Amount of HERO Insecticide allowed per Year:** Do not apply more than 46.35 fl oz/A of product (0.112 lb/A zeta-cypermethrin + 0.336 lb/A bifenthrin) per year.

Do not make more than 4 applications per year when applications are made at the maximum rate.  
**Refer to the maximum usage tables when applying more than one product containing either zeta-cypermethrin or bifenthrin to this crop.**

**Remarks**

Apply by ground or air equipment using sufficient water to obtain full coverage of foliage (minimum of 20 gallons of finished spray per acre by ground and 2 gallons of finished spray per acre by air).  
 Follow appropriate spray drift precautions on this label.

**Caneberries**

Blackberries, Bingleberries, Boysenberry, Dewberries, Lowberries, Marionberries, Olallieberries, Youngberries, Loganberries, Raspberries (black and red)

Pests Controlled	Rate of Application
Leafroller spp. Orange tortrix Root weevil spp. Blackvine weevil	4.0 – 10.3 fl oz/A of product
Twospotted Spider mite Carmine mite Raspberry crown borer	10.3 fl fl oz/A of product

**RESTRICTIONS**

**PHI:** Do not apply within 3 day of harvest.

**Application Interval:** Do not make applications less than 7 days apart.

**Maximum Amount per Application:** Do not apply more than 10.3 fl oz/A of product (0.025 lb/A zeta-cypermethrin + 0.075 lb/A bifenthrin) per application.

**Maximum Amount of HERO Insecticide allowed per Year:** Do not apply more than 27.4 fl oz/A of product (0.066 lb/A zeta-cypermethrin + 0.198 lb/A bifenthrin) per Year.

Do not make more than 2 applications per year when applications are made at the maximum rate.

**Refer to the maximum usage tables when applying more than one product containing either zeta-cypermethrin or bifenthrin to this crop.**

**Remarks**

Apply by air or ground equipment using sufficient water to obtain full coverage of foliage (minimum of 10 gallons of finished spray per acre by air and 50 gallons of finished spray per acre by ground).

One application may be made pre-bloom and a second application may be made post bloom

For Crown Borer, apply 0.10 lb ai/A post-harvest (fall) or pre-bloom (spring), as a drench application directed at the crown of plants in a minimum of 200 gallons water/A. Greater efficacy is observed at higher water gallonages (up to 400 gallons/A) or in an application prior to a significant rainfall event.

Do not make both pre-bloom foliar and pre-bloom drench applications.

Follow appropriate spray drift precautions on this label.

## Grape

Pests Controlled	Rate of Application
Asian lady bird beetle Cutworm spp. Eastern grape leafhopper Grape berry moth Grape vine root borer (adult) Japanese beetle (adult) Lady bird beetle Variegated leafhopper Western grape leafhopper	4.0 – 10.3 fl oz/A of product
Black vine weevil Glassywinged sharpshooter Twospotted spider mite	10.3 fl oz/A of product
<p><b>RESTRICTIONS</b></p> <p><b>PHI:</b> Do not apply within 30 days of harvest.</p> <p><b>Application Interval:</b> Do not make applications less than 7 days apart.</p> <p><b>Maximum Amount per Application:</b> Do not apply more than 10.3 fl oz/A of product lb ai/A (0.025 lb/A zeta-cypermethrin + 0.075 lb/A bifenthrin) per application.</p> <p><b>Maximum Amount of HERO Insecticide allowed per Year:</b> Do not apply more than 10.3 fl oz/A of product (0.025 lb/A zeta-cypermethrin + 0.075 lb/A bifenthrin) per year. Do not make more than 1 application per year when applications are made at the maximum rate.</p> <p><b>Refer to the maximum usage tables when applying more than one product containing either zeta-cypermethrin or bifenthrin to this crop.</b></p> <p><b>Remarks</b>            Apply as required by scouting. Base timing and frequency of applications on insect populations reaching locally determined economic threshold levels.</p> <p>Apply by ground or air equipment using sufficient water to obtain full coverage of foliage (minimum of 25 gallons of finished spray per acre by ground and 10 gallons of finished spray per acre by air).</p> <p>Follow appropriate spray drift precautions on this label.</p>	

## Pecans

Pests Controlled	Rate of Application
Black Pecan Aphid Hickory Shuckworm Pecan Nut Casebearer Pecan Weevil Yellow Pecan Aphid	10.3 fl oz/A of product
<p><b>RESTRICTIONS</b></p> <p><b>PHI:</b> Do not apply within 21 days of harvest.</p> <p><b>Maximum Amount per Application:</b> Do not apply more than 10.3 fl oz/A of product (0.025 lb/A zeta-cypermethrin + 0.075 lb/A bifenthrin) per application.</p> <p><b>Maximum Amount of HERO Insecticide allowed per Year:</b> Do not apply more than 46.35 fl oz/A of product (0.112 lb/A zeta-cypermethrin + 0.336 lb/A bifenthrin) per year.</p> <p>Do not make more than 4 applications per year when applications are made at the maximum rate.</p> <p><b>Refer to the maximum usage tables when applying more than one product containing either zeta-cypermethrin or bifenthrin to this crop.</b></p> <p>Do not make applications less than 15 days apart.</p> <p>Do not graze livestock in treated orchards or cut treated cover crops for feed.</p> <p><b>REMARKS</b></p> <p><b>Application by ground:</b>                      Apply as a dilute (minimum of 200 gallons of finished spray per acre) or concentrate (minimum of 50 gallons of finished spray per acre) spray in sufficient water to provide thorough coverage.</p> <p><b>Application by air:</b>                      Apply the specified dosage in a minimum of 10 gallons of finished spray per acre.</p>	

## Avocado

Pests Controlled	Rate of Application
Avocado Lace Bug Avocado Leafhopper Avocado Leafroller Avocado Loopers Avocado Tree Girdler Avocado Whitefly Brown Soft Scale Caterpillars Mirids Omnivorous Loopers Orange Tortrix Scale Crawlers Spanworm Thrips Twig Borers Redbay Ambrosia Beetle	7.75 fl oz/A of product
<p><b>RESTRICTIONS</b></p> <p><b>PHI:</b> Do not apply within 1 day of harvest.</p> <p><b>Application Interval:</b> Do not make applications less than 14 days apart.</p> <p><b>Maximum Amount per Application:</b> Do not apply more than 7.75 fl oz/A of product (0.019 lb/A zeta-cypermethrin + 0.056 lb/A bifenthrin) per application.</p> <p><b>Maximum Amount of HERO Insecticide allowed per Year:</b> Do not apply more than 38.71 fl oz/A of product (0.093 lb/A zeta-cypermethrin + 0.280 lb/A bifenthrin) per year.</p> <p>Do not make more than 5 applications per year when applications are made at the maximum rate.</p> <p><b>Refer to the maximum usage tables when applying more than one product containing either zeta-cypermethrin or bifenthrin to this crop.</b></p> <p>Do not graze livestock in treated orchards or cut treated cover crops for feed.</p> <p><b>REMARKS</b></p> <p>Apply when insects first appear.</p> <p>Apply in a minimum of 10 gallons of finished spray per acre by air or in a minimum of 95 gallons of finished spray per acre with ground equipment.</p>	

## **STORAGE AND DISPOSAL**

Do not contaminate water, food, or feed, or other pesticides or fertilizers by storage and disposal.

### **Pesticide Storage**

Do not freeze. Keep out of reach of children and animals.

Store in original containers only. Store in a cool, dry place and avoid excess heat. Carefully open containers. After partial use, replace lids and close tightly. Do not put concentrate or dilute material into food or drink containers.

In case of spill, avoid contact, isolate area and keep out animals and unprotected persons. Confine spills. Call CHEMTREC (Transportation and Spills): (800) 424-9300.

**To confine spill:** Dike surrounding area or absorb with sand, cat litter, or commercial clay. Place damaged package in a holding container. Identify contents.

### **Pesticide Disposal**

Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

### **Container Handling**

#### **Nonrefillable Container**

Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying.

Triple rinse as follows:

**For containers equal to 5 gallons or less:** 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  $\frac{1}{4}$  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.

**For containers greater than 5 gallons:** Empty the remaining contents into application equipment or a mix tank. Fill the container  $\frac{1}{4}$  full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution. For 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. 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 incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

#### **Refillable/Returnable Container**

Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection systems. Repeat this rinsing procedure two more times. Then offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

## 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 FMC or Seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and Buyer and User agree to hold FMC 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. EXCEPT AS WARRANTED BY THIS LABEL, FMC 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 FMC, and Buyer assumes the risk of any such use.**

To the extent consistent with applicable law FMC 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 FMC 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 FMC OR SELLER, THE REPLACEMENT OF THE PRODUCT.

This Conditions of Sale and Limitation of Warranty and Liability may not be amended by any oral or written agreement.

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# RESTRICTED USE PESTICIDE

Due to toxicity to fish and aquatic organisms.

For retail sale to and use only by Certified Applicators, or persons under their direct supervision and only for the uses covered by the Certified Applicator's certification.

ZETA-CYPERMETHRIN	GROUP	3A	INSECTICIDE
BIFENTHRIN	GROUP	3A	INSECTICIDE

## Supplemental Labeling

This supplemental label expires on December 31, 2024 and must not be used or distributed after this date.



**For use on Avocado**

EPA Reg. No. 279-3329

<b>Active Ingredient:</b>	<b>By Wt.</b>
Zeta-Cypermethrin* .....	3.75%
Bifenthrin** .....	11.25%
<b>Other Ingredients***:</b> .....	<b>85.00%</b>
<b>Total</b>	<b>100.0%</b>

HERO® Insecticide contains 0.309 pound zeta-cypermethrin and 0.927 pound bifenthrin per gallon.

\* *Cis/trans* isomer ratio: Max 75% ( $\pm$ ) *cis* and Min. 25% ( $\pm$ ) *trans*

\*\* *Cis* isomers 97% minimum; *trans* isomers 3% maximum.

\*\*\* Contains Petroleum Distillates

**ACCEPTED**

11/19/2021

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under

EPA Reg. No. 279-3315

**KEEP OUT OF REACH OF CHILDREN  
CAUTION**

### DIRECTIONS FOR USE

**IT IS A VIOLATION OF FEDERAL LAW TO USE THIS PRODUCT IN A MANNER  
INCONSISTENT WITH ITS LABELING.**

**ALL APPLICABLE DIRECTIONS, RESTRICTIONS AND PRECAUTIONS ON THE EPA  
REGISTERED LABEL ARE TO BE FOLLOWED.**

This Supplemental labeling must be in the possession of the user at the time of pesticide application. Read the label affixed to the container for HERO Insecticide before applying. Use of HERO Insecticide according to this supplemental labeling is subject to the use precautions and limitations imposed by the label affixed to the container of HERO Insecticide. Carefully follow all precautionary statements and application use directions.



FMC Corporation  
2929 Walnut Street  
Philadelphia, PA 19104



**Avocado**

Pests Controlled	Rate of Application
Avocado Lace Bug Avocado Leafhopper Avocado Leafroller Avocado Loopers Avocado Tree Girdler Avocado Whitefly Brown Soft Scale Caterpillars Mirids Omnivorous Loopers Orange Tortrix Scale Crawlers Spanworm Thrips Twig Borers Redbay Ambrosia Beetle	7.75 fl oz/A of product
<p><b>RESTRICTIONS</b></p> <p><b>PHI:</b> Do not apply within 1 day of harvest.</p> <p><b>Application Interval:</b> Do not make applications less than 14 days apart.</p> <p><b>Maximum Amount per Application:</b> Do not apply more than 7.75 fl oz/A of product (0.019 lb/A zeta-cypermethrin + 0.056 lb/A bifenthrin) per application.</p> <p><b>Maximum Amount of HERO Insecticide allowed per Year:</b> Do not apply more than 38.71 fl oz/A of product (0.093 lb/A zeta-cypermethrin + 0.280 lb/A bifenthrin) per year.</p> <p>Do not make more than 5 applications per year when applications are made at the maximum rate.</p> <p><b>Refer to the maximum usage tables when applying more than one product containing either zeta-cypermethrin or bifenthrin to this crop.</b></p> <p>Do not graze livestock in treated orchards or cut treated cover crops for feed.</p> <p><b>REMARKS</b></p> <p>Apply when insects first appear.                      Apply in a minimum of 10 gallons of finished spray per acre by air or in a minimum of 95 gallons of finished spray per acre with ground equipment.</p>	

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