# 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** |

# HERO® EW

INSECTICIDE

**EPA Reg. No. 279-3329** **EPA Est. 279-NY-1**

| **Active Ingredients:** | **By Wt.** |
|---|---|
| **Zeta-Cypermethrin*** | 3.24% |
| **Bifenthrin**** | 9.72% |
| **Other Ingredients***:** | 87.04% |
| | 100.0% |

Hero EW Insecticide contains 0.286 pound zeta-cypermethrin and 0.858 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

# WARNING
# AVISO

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 to you in detail.)

## FIRST AID

| | |
|---|---|
| **If swallowed** | • Immediately call a poison control center or doctor.<br>• Do not induce vomiting unless told to do so by a poison control center or doctor.<br>• Do not give **any** liquid to the person.<br>• Do not give anything by mouth to an unconscious person. |
| **If in eyes** | • Hold eye open and rinse slowly and gently with water for 15 to 20 minutes.<br>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes.<br>• Call a poison control center for treatment advice. |

## NOTE TO PHYSICIAN

Contains petroleum distillates. Vomiting may cause aspiration pneumonia.

## HOTLINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-(800)-331-3148 for Emergency Assistance.

**See other panels for additional precautionary information.**

Sold By

FMC

FMC Corporation
2929 Walnut Street
Philadelphia, PA 19104

**Net Contents: 1 Gallon**

SL-4628 030822 11-19-21

# PRECAUTIONARY STATEMENTS

## Hazards to Humans and Domestic Animals

## WARNING

May be fatal if swallowed. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

**Personal Protective Equipment:**

**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 ≥ 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 such as barrier laminate; or viton ≥ 14 mils
- Shoes plus socks
- Protective eyewear

**Mixers and loaders supporting aerial applications to cotton must wear at a minimum:**

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

## 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. To protect the environment, do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters or surface water. Applying this product in calm weather when rain is not predicted for the next 24 hours will help to ensure that wind or rain does not blow or wash pesticide off the treatment area. Rinsing application equipment over the treated area will help avoid run off to water bodies or drainage systems.
The use of Hero EW 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

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.
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.

## Resistance Management

For resistance management, Hero EW Insecticide contains a Group 3A insecticide. Any insect population may contain individuals naturally resistant to Hero EW 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 EW 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, such as 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.

Hero EW Insecticide should be applied continuously for the duration of the water application. Hero EW Insecticide should be diluted 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. 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

# GENERAL INSTRUCTIONS

Use lower labeled rate for 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 EW Insecticide.

# Tank-Mixture

Hero EW 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 EW Insecticide contains the pyrethroids zeta-cypermethrin and bifenthrin.

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

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*** | | **Cypermethrin**** | **Zeta-cypermethrin* plus Cypermethrin**** | **Zetacypermethrin*** |
| | ***Mustang Maxx Insecticide*** | ***Hero EW Insecticide*** | | | |
| Canola | 0.15 | 0.0265 | NA | NA | 0.15 |
| Cotton | 0.15 | 0.113 | 0.4 | 0.4 | 0.15 |
| Field Corn | 0.1 | 0.1 | NA | NA | 0.1 |
| Sweet Corn | 0.15 | 0.067 | NA | NA | 0.15 |
| Peanut | 0.15 | 0.1 | NA | NA | 0.15 |
| Potato | 0.15 | 0.113 | NA | NA | 0.15 |
| Soybeans | 0.15 | 0.1 | NA | NA | 0.15 |
| Cucurbits | 0.15 | 0.1 | NA | NA | 0.15 |
| Eggplant, okra, pepper | 0.15 | 0.067 | NA | NA | 0.15 |
| Tomato | 0.15 | 0.105 | NA | NA | 0.15 |
| Head Lettuce | 0.15 | 0.113 | 0.6 | 0.6 | 0.15 |
| Head and Stem Brassica | 0.15 | 0.113 | 0.6 | 0.6 | 0.15 |
| Leafy Brassica | 0.15 | 0.113 | 0.4 | 0.4 | 0.15 |
| Dried and Succulent Peas and Beans | 0.15 | 0.067 | NA | NA | 0.15 |
| Root and tuber vegetables | 0.15 | 0.113 | NA | NA | 0.15 |
| Blueberries | 0.15 | 0.113 | NA | NA | 0.15 |
| Caneberries | 0.15 | 0.067 | NA | NA | 0.15 |
| Grape | 0.15 | 0.025 | NA | NA | 0.15 |
| Tree nuts | 0.125 | 0.113 | 0.5 | 0.5 | 0.125 |
| Avocado | 0.15 | 0.094 | NA | NA | 0.15 |

**Mustang Maxx Insecticide; Hero EW 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 (lbai/A) | | |
|---|---|---|---|
| | Bifenthrin | | *When Applying Bifenthrin * Products Plus Hero EW Insecticide to the Same Crop* |
| | *Hero EW Insecticide* | *Bifenthrin ** | |
| Canola | 0.08 | 0.08 | 0.08 |
| Cotton | 0.338 | 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 | 0.338 | 0.5 | 0.5 |
| Soybeans | 0.3 | 0.3 | 0.3 |
| Cucurbits | 0.3 | 0.3 | 0.3 |
| Eggplant, okra, pepper | 0.2 | 0.2 | 0.2 |
| Tomato | 0.316 | 0.32 | 0.32 |
| Head Lettuce | 0.338 | 0.5 | 0.5 |
| Head and Stem Brassica | 0.338 | 0.5 | 0.5 |
| Leafy Brassica | 0.338 | 0.4 | 0.4 |
| Dried and Succulent Peas and Beans | 0.2 | 0.2 | 0.2 |
| Root and tuber vegetables | 0.338 | 0.5 | 0.5 |
| Blueberries | 0.338 | 0.5 | 0.5 |
| Caneberries | 0.201 | 0.2 | 0.2 |
| Grape | 0.075 | 0.1 | 0.1 |
| Treenuts | 0.338 | 0.5 | 0.5 |
| Avocado | 0.282 | 0.282 | 0.282 |
| **Any bifenthrin product approved for crop use.* | | | |

# FIELD CROPS

## Canola, Crambe and Rapeseed

| Pests Controlled | Rate of Application |
|---|---|
| Cutworm spp.<br>Flea beetle | 2.8 - 5.95 fl oz/A of product |
| Aphid spp.<br>Armyworm, fall*<br>Armyworm, southern<br>Armyworm, true<br>Armyworm, yellowstriped<br>Diamondback moth**<br>Fleahopper<br>Grasshopper<br>Looper spp.<br>Seedpod weevil<br>Stinkbug spp. | 4.5 – 5.95 fl oz/A of product |

**RESTRICTIONS**
**PHI:** Do not apply within 35 days of harvest.
**Application Interval:** Do not make applications less than 14 days apart.
**Maximum Amount per Application:** Do not apply more than 5.95 fl oz/A of product (0.013 lb/A zeta-cypermethrin + 0.04 lb/A bifenthrin) per application.
**Maximum Amount of Hero EW Insecticide allowed per Year:** Do not apply more than 11.9 fl oz/A of product (0.027 lb/A zeta-cypermethrin + 0.08 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 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 2 gallons of finished spray per acre by air).
*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 to the resistance management statement in the DIRECTIONS FOR USE section of this label.

## Cotton

| Pests Controlled | Rate of Application |
|---|---|
| European Corn Borer<br>Grasshoppers<br>Soybean (Banded) Thrips<br>Tobacco Thrips | 3.9 – 11.2 fl oz/A of product |
| Armyworm, Fall*<br>Armyworm, Yellowstriped<br>Bagrada bug<br>Boll Weevil<br>Bollworm<br>Cabbage Looper<br>Cotton Aphid<br>Cotton Fleahopper<br>Cotton Leafperforator<br>Cutworms<br>Saltmarsh Caterpillar<br>Southern Garden<br>Leafhopper<br>Stink Bugs<br>Tobacco Budworm* | 5.6 – 11.2 fl oz/A of product |
| Carmine Spider Mite<br>Lygus Species<br>Pink Bollworm<br>Twospotted Spider Mite<br>Whitefly | 11.2 fl oz/A of product |

**RESTRICTIONS**
**PHI:** Do not apply within 14 days of harvest.
**Maximum Amount per Application:** Do not apply more than 11.2 fl oz/A of product (0.025 lb/A zeta-cypermethrin + 0.075 lb/A bifenthrin) per application.
**Maximum Amount of Hero EW Insecticide allowed per** Year**:** Do not apply more than 50.5 fl oz/A of product (0.113 lb/A zeta-cypermethrin + 0.338 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 EW 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 EW 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 EW Insecticide at an interval of 3 to 4 days until pest numbers are reduced to acceptable levels.
**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

| Pests Controlled | Rate of Application |
|---|---|
| Armyworm spp. (true armyworm)<br>Common Stalk Borer<br>Cutworm spp. (Army cutworm, Black cutworm)<br>Seed cord maggot<br>Root aphids (Corn root aphid)<br>White grub<br>Wireworm spp. | 4.5 – 11.2 fl oz/A of product |

**RESTRICTIONS**
**PHI:** Do not apply within 30 days of harvest for grain and stover and 60 days of harvest for forage.
**Maximum Amount per Application:** Do not apply more than 11.2 fl oz/A of product (0.025 lb/A zeta-cypermethrin + 0.075 lb/A bifenthrin) as an at-plant application.
**Maximum Amount of Hero EW Insecticide allowed per Season:** Do not apply more than 44.8 fl oz/A of product per year (0.1 lb/A zeta-cypermethrin + 0.3 lb/A bifenthrin) including at-plant plus foliar applications for this product.
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**
For Seed cord maggot, Root aphids, White grubs and Wireworms: 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.
**For Armyworm spp. and Cutworm spp:** Apply at planting on the soil surface in a 5 – 7 inch band in a minimum of 2 to 7 gallons of finished spray per acre or broadcast in a minimum of 10 gallons of finished spray per acre.
Use higher labeled rate for increased residual pest control.

| Row spacing (inches) | fl oz/1000 linear feet | lb ai/1000 linear feet |
|---|---|---|
| 30 | 0.25 - 0.64 | 0.0006 zeta-cypermethrin + 0.0017 bifenthrin<br>to<br>0.0014 zeta-cypermethrin + 0.0043 bifenthrin |
| 20 | 0.17 - 0.42 | 0.0004 zeta-cypermethrin + 0.0011 bifenthrin<br>to<br>0.0009 zeta-cypermethrin + 0.0028 bifenthrin |
| 15 | 0.12 - 0.32 | 0.0003 zeta-cypermethrin + 0.0008 bifenthrin<br>to<br>0.0007 zeta-cypermethrin + 0.0021 bifenthrin |

## Field Corn (Grain and Silage), Popcorn, Field Corn Grown for Seed. Foliar Use

| Pests Controlled | Rate of Application |
|---|---|
| Army Cutworm<br>Bean Leaf Beetle<br>Common Stalk Borer<br>Cutworm Species<br>Flea Beetle<br>Grasshoppers<br>Green Cloverworm<br>Hop Vine Borer<br>Western Bean Cutworm | 2.8 – 6.7 fl oz/A of product |
| Aphid Species<br>Armyworm, Fall*<br>Armyworm, Southern<br>Armyworm, True<br>Armyworm Species<br>Armyworm, Yellowstriped<br>Cereal Leaf Beetle<br>Chinch Bug<br>Corn blotch leafminer (adult)<br>Corn Earworm<br>Corn Leaf hopper<br>Corn Rootworm Adult<br>Corn Silk Fly<br>Cucumber Beetle Adult<br>European Corn Borer<br>False Chinch Bug<br>Greenbug<br>Hornworms<br>Japanese Beetle Adult<br>Meadow Spittlebug<br>Sap Beetle<br>Southern Corn Leaf Beetle<br>Southwestern Corn Borer<br>Stinkbugs<br>Tobacco Budworm**<br>Webworms | 4.5 – 11.2 fl oz/A of product |
| Banks Grass Mite<br>Carmine Mite<br>Lygus Species<br>Twospotted Spider Mite | 11.2 fl oz/A of product |

**RESTRICTIONS**

**Maximum Amount per Application:** Do not apply more than 11.2 fl oz/A of product (0.025 lb/A zeta-cypermethrin + 0.075 lb/A bifenthrin) per application.

**Maximum Amount of Hero EW Insecticide allowed per** Year**:** Do not apply more than 44.8 fl oz/A of product (0.1 lb/A zeta-cypermethrin + 0.3 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 EW 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. Do not exceed maximum labeled rate.

**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 to 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.<br>Army Cutworm<br>Armyworm, Fall*<br>Armyworm, Southern<br>Armyworm Species<br>Armyworm, True<br>Armyworm, Yellowstriped<br>Cereal Leaf Beetle<br>Chinch Bug<br>Common Stalk Borer<br>Corn blotch leafminer (adult)<br>Corn Earworm<br>Corn Rootworm Adult<br>Corn Silk Fly<br>Cucumber Beetle Adult<br>Cutworm Species<br>European Corn Borer<br>False chinch bug<br>Flea Beetle<br>Grasshoppers<br>Greenbug<br>Japanese Beetle Adult<br>Leafhoppers<br>Sap Beetle<br>Southern Corn Leaf Beetle<br>Southwestern Corn Borer<br>Stinkbugs<br>Webworms<br>Western Bean Cutworm | 4.5 – 11.2 fl oz/A of product |
| Banks Grass Mite<br>Carmine Mite<br>Lygus Species<br>Twospotted Spider Mite | 11.2 fl oz/A of product |

**RESTRICTIONS**

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

**Maximum Amount per Application:** Do not apply more than 11.2 fl oz/A of product (0.025 lb/A zeta-cypermethrin + 0.075 lb/A bifenthrin) per application.

**Maximum Amount of Hero EW Insecticide allowed per** Year**:** Do not apply more than 29.86 fl oz/A of product (0.067 lb/A zeta-cypermethrin + 0.2 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 EW 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.

Use higher labeled rates for heavier initial populations and corn under heat or drought stress. 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.

## Peanut

| Pests Controlled | Rate of Application |
|---|---|
| Lesser cornstalk borer**<br>Thrips (adults)<br>Spider mite spp. | 11.2 fl oz/A of product |
| Aphid spp.<br>Armyworm, fall*<br>Armyworm, southern<br>Armyworm, true<br>Armyworm, yellowstriped<br>Bean Leaf Beetle<br>Corn earworm<br>Cutworm spp.<br>Grasshopper spp.<br>Green Cloverworm<br>Leafhopper spp.<br>Lesser cornstalk borer<br>Looper spp.<br>Red-necked peanut worm<br>Southern corn rootworm (adult)<br>Stinkbug spp<br>Threecornered alfalfa hopper<br>Vegetable weevil<br>Velvetbean caterpillar<br>Whitefringed beetle (adult) | 4.5 – 11.2 fl oz/A of product |

**RESTRICTIONS**
**PHI:** Do not apply within 14 days of harvest.
**Application Interval:** Do not make applications less than 14 days apart.
**Maximum Amount per Application:** Do not apply more than 11.2 fl oz/A of product (0.025 lb/A zeta-cypermethrin + 0.075 lb/A bifenthrin) per application.
**Maximum Amount of Hero EW Insecticide allowed per** Year**:** Do not apply more than 44.8 fl oz/A of product (0.1 lb/A zeta-cypermethrin + 0.3 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 area. Do not use treated vines or hay for animal feed. Do not feed green immature plants and peanut hay to livestock.
**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 2 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.
** Aids in control.

## Potato

| Pests | Rate of Application |
|---|---|
| Cutworm spp.<br>Flea beetle spp.<br>Grasshopper | 2.8 - 6.7 fl oz/A of product |
| Aphid spp.<br>Armyworm, fall*<br>Armyworm, southern<br>Armyworm, true<br>Armyworm, yellowstriped<br>Banded cucumber beetle<br>Chinch bug<br>Colorado potato beetle*<br>Cucumber beetle (adult)<br>European cornborer<br>False chinch bug<br>Grasshopper spp.<br>Looper spp.<br>Potato leafhopper<br>Sugarcane beetle<br>Sweetpotato flea beetle<br>Sweetpotato weevil (adult)<br>Potato tuberworm** | 4.5 – 11.2 fl oz/A of product |
| Plant bug spp.<br>Twospotted spider mite | 11.2 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 11.2 fl oz/A of product (0.025 lb/A zeta-cypermethrin + 0.075 lb/A bifenthrin) per application.
**Maximum Amount of Hero EW Insecticide allowed per Year:** Do not apply more than 50.4 fl oz/A of product (0.113 lb/A zeta-cypermethrin + 0.338 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<br>Cutworms<br>Flea beetle<br>Grasshoppers<br>Green cloverworm<br>Painted Lady (Thistle) Caterpillar<br>Silverspotted Skipper | 2.8 - 6.7 fl oz/A of product |
| Alfalfa Caterpillar<br>Armyworm, fall*<br>Armyworm, southern<br>Armyworm, true<br>Armyworm, yellowstriped<br>Blister Beetle spp.<br>Corn Earworm<br>Corn Rootworm Adult<br>Cowpea Curculio<br>Cucumber Beetle Adult<br>Dectes Stem Borer<br>European Corn Borer<br>False Chinch Bug<br>Grape colaspsis (adult)<br>Hornworms<br>Imported Cabbageworm<br>Japanese beetle Adult<br>Leaf Skeletonizer spp.<br>Leafhoppers<br>Leafminers Adults<br>Lesser Cornstalk Borer<br>Loopers<br>Mexican Bean Beetle<br>Pea Leaf Weevil<br>Saltmarsh Caterpillar<br>Seedcorn Maggot Adult<br>Soybean Aphid<br>Spittlebug<br>Stink Bug<br>Three-Cornered Alfalfa Hopper<br>Thrips<br>Tobacco Budworm**<br>Velvetbean Caterpillar<br>Webworm<br>Woollybear Caterpillar | 4.5 – 11.2 fl oz/A of product |
| Lygus Species<br>Whitefly Thrips<br>Two Spotted Spider Mite | 11.2 fl oz/A of product |

**RESTRICTIONS**

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

**Maximum Amount per Application:** Do not apply more than 11.2 fl oz/A of product (0.025 lb/A zeta-cypermethrin + 0.075 lb/A bifenthrin) per application.

**Maximum Amount of Hero EW Insecticide allowed per** Year**:** Do not apply more than 44.9 fl oz/A of product (0.1 lb/A zeta-cypermethrin + 0.301 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 by ground and 2 gallons 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 outbreak conditions, 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)<br>Cutworm spp. (Army cutworm)<br>Seed corn maggot<br>Root aphids<br>White grub<br>Wireworm spp. | 4.5 – 11.2 fl oz/A of product |

**RESTRICTIONS**
**PHI:** Do not apply within 21 days of harvest.
**Maximum Amount of Hero EW Insecticide allowed per Application:** Do not apply more than 11.2 fl oz/A of product (0.025 lb/A zeta-cypermethrin + 0.075 lb/A bifenthrin) per application.
**Maximum Amount of Hero EW Insecticide allowed per** Year**:** Do not apply more than 44.9 fl oz/A of product (0.1 lb/A zeta-cypermethrin + 0.301 lb/A bifenthrin) per year.
Do not make more than 4 applications per year when applications are made at the maximum rate.
**REMARKS**
**For Seed corn maggot, Root aphids, White grubs and Wireworms:** Apply in-furrow or in a 3 – 4 inch T-Band (band over the open furrow) at planting in a minimum of 2 to 7 gallons per acre.
**For Armyworm spp. and Cutworm spp:** Apply at planting on the soil surface in a 5 – 7 inch band in a minimum of 2 to 7 gallons per acre or broadcast in a minimum of 10 gallons per acre**.**
Use higher dosage for increased residual pest control.

| Row spacing (inches) | fl oz/ 1000 linear feet | lbs ai/ 1000 linear feet |
|---|---|---|
| 30 | 0.26 - 0.64 | 0.0006 zeta-cypermethrin + 0.0017 bifenthrin<br>to<br>0.0014 zeta-cypermethrin + 0.0043 bifenthrin |
| 20 | 0.17 - 0.43 | 0.0004 zeta-cypermethrin + 0.0011 bifenthrin<br>to<br>0.0010 zeta-cypermethrin + 0.0029 bifenthrin |
| 15 | 0.13 - 0.32 | 0.0003 zeta-cypermethrin + 0.0009 bifenthrin<br>to<br>0.0007 zeta-cypermethrin + 0.0021 bifenthrin |

## Soybeans
## PPI and PRE Uses

| Pests | Rate of Application |
|---|---|
| **Pre-Plant Incorporated (PPI)** | |
| Black Cutworm<br>White grub<br>Wireworm<br>Seedcorn Maggot<br>Armyworm spp. | 4.5 – 11.2 fl oz/A of product |
| **Pre-Emergence (PRE)** | |
| Black Cutworm<br>Armyworm spp.<br>Stalkborer | 2.8 – 6.7 fl oz/A of product |

**RESTRICTIONS**
**PHI:** Do not apply within 21 days of harvest.
**Maximum Amount of Hero EW Insecticide allowed per Application:** Do not apply more than 11.2 fl oz/A of product (0.025 lb/A zeta-cypermethrin + 0.075 lb/A bifenthrin) per application.
**Maximum Amount of Hero EW Insecticide allowed per** Year**:** Do not apply more than 41.2 fl oz/A of product (0.092 lb/A zeta-cypermethrin + 0.276 lb/A bifenthrin) per year.
Do not make more than 3 applications per year when applications are made at the maximum rate.
**REMARKS**
**For PPI treatments:** Hero EW Insecticide can be tank mixed and applied with PPI herbicides. Do not incorporate Hero EW 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 EW 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.<br>Armyworm, fall*<br>Armyworm, southern<br>Armyworm, true<br>Armyworm, yellowstriped<br>Bagrada bug<br>Cabbage looper<br>Corn earworm<br>Cucumber beetle<br>Cutworm spp.<br>Grasshopper<br>Leafhopper spp.<br>Melonworm<br>Pickleworm<br>Rindworm<br>Squash bug<br>Squash vine borer<br>Stink bug spp.<br>Tobacco budworm** | 4.5 – 11.2 fl oz/A of product |
| Carmine mite<br>Plant bug spp.<br>Twospotted spider mite<br>Whitefly | 11.2 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 11.2 fl oz/A of product (0.025 lb/A zeta-cypermethrin + 0.075 lb/A bifenthrin) per application.

**Maximum Amount of Hero EW Insecticide allowed per** Year**:** Do not apply more than 44.8 fl oz/A of product or (0.1 lb/A zeta-cypermethrin + 0.3 lb/A bifenthrin) per year.

Do not make more than 4 applications per year at higher application 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 more than 2 applications after bloom.

**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*<br>Armyworm, Southern<br>Armyworm, True<br>Armyworm, Yellowstriped<br>Bagrada bug<br>Cabbage Looper<br>Celery Leaf Tier<br>Colorado Potato Beetle**<br>Corn Earworm<br>Cucumber Beetle<br>Cutworm Species<br>European Corn Borer<br>Flea Beetle<br>Garden Webworm<br>Grasshoppers<br>Hornworms<br>Leafhopper Species<br>Meadow Spittlebug<br>Pepper Maggot Adult<br>Pepper Weevil<br>Southwestern Corn Borer<br>Stink Bug<br>Tobacco Budworm<br>Tomato Fruitworm<br>Tomato Hornworm<br>Tomato Pinworm<br>Vegetable Leafminer | 4.5 – 11.2 fl oz/A of product |
| Banks Grass Mite<br>Carmine Mite<br>Lygus Species<br>Pacific Spider Mite<br>Thrips Species<br>Psyllid Species<br>Twospotted Spider Mite<br>Whitefly | 11.2 fl oz/A of product |

**RESTRICTIONS**

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

**Maximum Amount per Application:** Do not apply more than 11.2 fl oz/A of product (0.025 lb/A zeta-cypermethrin + 0.075 lb/A bifenthrin) per application.

**Maximum Amount of Hero EW Insecticide allowed per** Year**:** Do not apply more than 29.86 fl oz/A of product (0.067 lb/A zeta-cypermethrin + 0.2 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 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.

**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*<br>Armyworm, Southern<br>Armyworm, Yellowstriped<br>Armyworm, True<br>Bagrada bug<br>Cabbage Looper<br>Celery Leaf Tier<br>Colorado Potato Beetle**<br>Corn Earworm<br>Cucumber Beetle<br>Cutworm Species<br>European Corn Borer<br>Flea Beetle<br>Garden Webworm<br>Grasshoppers<br>Hornworms<br>Leafhopper Species<br>Meadow Spittlebug<br>Pepper Maggot Adult<br>Pepper Weevil<br>Southwestern Corn Borer<br>Stink Bug<br>Tobacco Budworm**<br>Tomato Fruitworm<br>Tomato Hornworm<br>Tomato Pinworm<br>Vegetable Leafminer | 4.5 – 11.2 fl oz/A of product |
| Banks Grass Mite<br>Carmine Mite<br>Lygus Species<br>Pacific Spider Mite<br>Thrips Species<br>Psyllid Species<br>Twospotted Spider Mite<br>Whitefly | 11.2 fl oz/A of product |

**RESTRICTIONS**

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

**Maximum Amount per Application:** Do not apply more than 11.2 fl oz/A of product (0.025 lb/A zeta-cypermethrin + 0.075 lb/A bifenthrin) per application.

**Maximum Amount of Hero EW Insecticide allowed per** Year**:** Do not apply more than 47.15 fl oz/A of product (0.105 lb/A zeta-cypermethrin + 0.316 lb/A bifenthrin) per year.

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

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

Do not make applications less than 10 days apart.

**REMARKS**

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.

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.

## Head Lettuce

| Pests Controlled | Rate of Application |
|---|---|
| Aphid Species<br>Armyworm, fall*<br>Armyworm, southern<br>Armyworm, true<br>Armyworm, yellowstriped<br>Bagrada bug<br>Chinch bug<br>Corn Earworm<br>Crickets<br>Cucumber Beetle<br>Cutworm Species<br>Diamondback Moth**<br>Flea Beetle<br>Imported Cabbageworm<br>Leafhopper Species<br>Leafminer (adults)<br>Loopers<br>Saltmarsh Caterpillar<br>Stink Bug<br>Tobacco Budworm** | 4.5 – 11.2 fl oz/A of product |
| Carmine Mite<br>Lygus Species<br>Onion Thrips<br>Twospotted Spider Mite<br>Whitefly | 11.2 fl oz/A of product |

**RESTRICTIONS**

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

**Maximum Amount per Application:** Do not apply more than 11.2 fl oz/A of product or 0.10 lb ai/A (0.025 lb/A zeta-cypermethrin + 0.075 lb/A bifenthrin) per application.

**Maximum Amount of Hero EW Insecticide allowed per** Year**:** Do not apply more than 50.5 fl oz/A of product or 0.45 lb ai/A (0.113 lb/A zeta-cypermethrin + 0.338 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 7 days apart.

**REMARKS**

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.

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.

## Head & Stem Brassica

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

| Pests Controlled | Rate of Application |
|---|---|
| Aphid Species<br>Armyworm, fall*<br>Armyworm, southern<br>Armyworm, true<br>Armyworm, yellowstriped<br>Bagrada bug<br>Click Beetle (wireworm adult)<br>Corn Earworm<br>Crickets<br>Cucumber Beetle<br>Cutworm Species<br>Diamondback Moth**<br>Flea Beetle<br>Grasshoppers<br>Imported Cabbageworm<br>Leafhopper Species<br>Leafminer Species<br>Loopers<br>Saltmarsh Caterpillar<br>Southern Cabbageworm<br>Stink Bug<br>Tobacco Budworm** | 4.5 – 11.2 fl oz/A of product |
| Banks Grass Mite<br>Cabbage Webworm<br>Carmine Mite<br>Lygus Species<br>Pacific Spider Mite<br>Thrips Species<br>Twospotted Spider Mite<br>Whitefly | 11.2 fl oz/A of product |

**RESTRICTIONS**

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

**Maximum Amount per Application:** Do not apply more than 11.2 fl oz/A of product (0.025 lb/A zeta-cypermethrin + 0.075 lb/A bifenthrin) per application.

**Maximum Amount of Hero EW Insecticide allowed per** Year**:** Do not apply more than 50.5 fl oz/A of product (0.113 lb/A zeta-cypermethrin + 0.338 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 more than 5 applications after bloom. Do not make applications less than 7 days apart. Do not apply within 7 days of harvest.

**REMARKS**

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.

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.

## Leafy Brassica, Crop Subgroup 4-16B

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

| Pests Controlled | Rate of Application |
|---|---|
| Aphid spp.<br>Armyworm, fall*<br>Armyworm, southern<br>Armyworm, true<br>Armyworm, yellowstriped<br>Bagrada bug<br>Cabbageworm<br>Click beetle (wireworm adult)<br>Corn earworm<br>Crickets<br>Cucumber beetle (adult)<br>Cutworm spp.<br>Diamondback moth**<br>Flea Beetle spp.<br>Grasshopper spp.<br>Imported cabbageworm<br>Japanese beetle (adult)<br>Leafhopper spp.<br>Leafminer (adult)<br>Looper spp.<br>Saltmarsh caterpillar<br>Stinkbug spp.<br>Thrips<br>Tobacco budworm**<br>Wireworm (adult) | 4.5 – 11.2 fl oz/A of product |
| Carmine mite<br>Plant bug spp.<br>Pacific spider mite<br>Thrips<br>Twospotted spider mite | 11.2 fl oz/A of product |

**RESTRICTIONS**

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

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

**Maximum Amount per Application:** Do not apply more than 11.2 fl oz/A of product (0.025 lb/A zeta-cypermethrin + 0.075 lb/A bifenthrin) per application.

**Maximum Amount of Hero EW Insecticide allowed per** Year**:** Do not apply more than 50.4 fl oz/A of product (0.113 lb/A zeta-cypermethrin + 0.338 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 as required by scouting. Base timing and frequency of applications on insect populations reaching locally determined economic thresholds.

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.

*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.

**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.

| Pests Controlled | Rate of Application |
|---|---|
| Alfalfa Caterpillar<br>Aphid Species<br>Armyworm, Fall*<br>Armyworm, Southern<br>Armyworm, True<br>Armyworm, Yellowstriped Bagrada bug<br>Bean Leaf Beetle Blister Beetle Species Chinch bug<br>Corn Earworm<br>Corn Rootworm (adult)<br>Cowpea Curculio<br>Cucumber Beetle (adult)<br>Cutworms spp.<br>Dectes Stem Borer (adult)**<br>European Corn Borer<br>False chinch bug<br>Flea Beetle Grasshopper spp.<br>Green Cloverworm<br>Hornworm spp.<br>Imported Cabbageworm<br>Japanese beetle Adult<br>Leaf Skeletonizer<br>Leafhopper Species<br>Leafminers Spp. (adult)<br>Lesser Cornstalk Borer<br>Looper spp.<br>Mexican Bean Beetle<br>Painted Lady (Thistle) Caterpillar<br>Pea Leaf Weevil<br>Pea seed Weevil<br>Saltmarsh Caterpillar<br>Sap Beetle<br>Seedcorn Maggot (adult)<br>Silverspotted Skipper<br>Southwest Corn Borer<br>Spittlebug<br>Stink Bug spp.<br>Threecornered alfalfa hopper<br>Tobacco Budworm**<br>Velvetbean Caterpillar<br>Webworm Species<br>Western Bean Cutworm | 4.5 – 11.2 fl oz/A of product |
| Banks Grass Mite<br>Carmine Mite<br>Lygus Species<br>Thrips Species<br>Twospotted Spider Mite<br>Whitefly | 11.2 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 11.2 fl oz/A of product (0.025 lb/A zeta-cypermethrin + 0.075 lb/A bifenthrin) per application.
**Maximum Amount of Hero EW Insecticide allowed per Season:** Do not apply more than 29.86 fl oz/A of product (0.067 lb/A zeta-cypermethrin + 0.2 lb/A bifenthrin) per season.
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.
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.

**Root and Tuber Vegetables, Crop Group 1 (except Sugar Beet, Garden Beet and Potato)** Arracacha; Arrowroot; Artichoke (Chinese and Jerusalem); Edible Burdock; Edible Canna; 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<br>Flea Beetle<br>Grasshoppers | 2.8 - 6.7 fl oz/A of product |
| Aphids Armyworm, fall*<br>Armyworm, southern<br>Armyworm, true<br>Armyworm, yellowstriped<br>Bagrada bug<br>Banded Cucumber beetle<br>Black flea beetle<br>Chinch bug<br>Colorado Potato Beetle<br>Cucumber beetle Adult<br>European cornborer<br>False chinch bug<br>Grasshopper spp.<br>Japanese beetle June beetle Loopers<br>Potato leafhopper Sugarcane beetle<br>Sweetpotato flea beetle<br>Sweetpotato weevil Adult<br>Potato Tuberworm**<br>Rootworm spp. (adults) | 4.5 – 11.2 fl oz/A of product |
| Lygus species<br>Two Spotted Spider Mite | 11.2 fl oz/A of product |

**RESTRICTIONS**
**PHI:** Do not apply within 21 days of harvest.
Do not make applications less than 21 days apart.
**Maximum Amount per Application:** Do not apply more than 11.2 fl oz/A of product (0.025 lb/A zeta-cypermethrin + 0.075 lb/A bifenthrin) per application.
**Maximum Amount of Hero EW Insecticide allowed per Year:** Do not apply more than 50.4 fl oz/A of product (0.113 lb/A zeta-cypermethrin + 0.338 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 of Root and Tuber Vegetables (except sugar beet tops) 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.
*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.

### Garden Beet

| Pests Controlled | Rate of Application |
|---|---|
| Cutworms<br>Flea Beetle<br>Grasshoppers | 2.8 - 6.7 fl oz/A of product |
| Aphids<br>Armyworm, fall*<br>Armyworm, southern<br>Armyworm, true<br>Armyworm, yellowstriped<br>Bagrada bug<br>Banded Cucumber beetle<br>Black flea beetle<br>Chinch bug<br>Colorado Potato Beetle<br>Cucumber beetle Adult<br>European cornborer<br>False chinch bug<br>Grasshopper spp.<br>Japanese beetle<br>June beetle<br>Loopers<br>Potato leafhopper<br>Sugarcane beetle<br>Sweetpotato flea beetle<br>Sweetpotato weevil<br>Adult Potato<br>Tuberworm**<br>Rootworm spp. (adults) | 4.5 – 11.2 fl oz/A of product |
| Lygus species<br>Two Spotted Spider Mite | 11.2 fl oz/A of product |

**RESTRICTIONS**
Do not make applications less than 7 days apart.
**Maximum Amount per Application:** Do not apply more than 11.2 fl oz/A of product (0.025 lb/A zeta-cypermethrin + 0.075 lb/A bifenthrin) per application.
**Maximum Amount of Hero EW Insecticide allowed per Year:** Do not apply more than 50.4 fl oz/A of product fl oz/A of product (0.113 lb/A zeta-cypermethrin + 0.338 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.
*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.<br>Blueberry maggot<br>Fruitworms<br>Leaf hopper spp.<br>Lecanium scale (crawlers)<br>Plum curculio<br>Oblique leafroller<br>Red banded leafroller<br>Spanworm<br>Variegated leafroller | 4.5 – 11.2 fl oz/A of product |
| Twospotted mite<br>Carmine mite<br>Pacific mite<br>Lygus sp. | 11.2 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 11.2 fl oz/A of product (0.025 lb/A zeta-cypermethrin + 0.075 lb/A bifenthrin).
**Maximum Amount of Hero EW Insecticide allowed per Year:** Do not apply more than 50.4 fl oz/A of product or fl oz/A of product (0.113 lb/A zeta-cypermethrin + 0.338 lb/A bifenthrin).
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, and Raspberries (black and red)

| Pests Controlled | Rate of Application |
|---|---|
| Leafroller spp.<br>Orange tortrix<br>Root weevil spp.<br>Blackvine weevil | 4.5 – 11.2 fl oz/A of product |
| Twospotted spider mite<br>Carmine mite<br>Raspberry crown borer | 11.2 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 11.2 fl oz/A fl oz/A of product (0.025 lb/A zeta-cypermethrin + 0.075 lb/A bifenthrin) per application.

**Maximum Amount of Hero EW Insecticide allowed per Year:** Do not apply more than 30fl oz/A of product (0.067 lb/A zeta-cypermethrin + 0.201 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 11.2 fl oz/A of product

post-harvest (fall) or pre-bloom (spring), as a drench application directed at the crown of plants in a minimum of 200 gallons water/acre. Greater efficacy is observed at higher water gallonage (up to 400 gallons/acre) 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<br>Cutworm spp.<br>Eastern grape leafhopper<br>Grape berry moth<br>Grape vine root borer (adult)<br>Japanese beetle (adult)<br>Lady bird beetle<br>Variegated leafhopper<br>Western grape leafhopper | 4.5 – 11.2 fl oz/A of product |
| Black vine weevil<br>Glassywinged sharpshooter<br>Twospotted spider mite | 11.2 fl oz/A of product |

**RESTRICTIONS**

**PHI:** Do not apply within 30 days of harvest.

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

**Maximum Amount per Application:** Do not apply more than 11.2 fl oz/A of product (0.025 lb/A zeta-cypermethrin + 0.075 lb/A bifenthrin) per application.

**Maximum Amount of Hero EW Insecticide allowed per Year:** Do not apply more than 11.2 (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.

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

**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 25 gallons of finished spray by ground and 10 gallons of finished spray by air).

Follow appropriate spray drift precautions on this label.

## Tree Nuts Crop Group 14

Almond; beech nut; Brazil nut; butternut; cashew; chestnut; chinquapin; filbert (hazelnut); hickory nut; macadamia nut; pistachio; and walnut (black and English) and pecan.

| Pests Controlled | Rate of Application |
|---|---|
| Black pecan aphid<br>Codling moth<br>Filbert worm<br>Hickory shuckworm<br>Leaffooted bug<br>Pecan weevil<br>Plant bug spp.<br>Navel orange worm<br>Oblique-banded leafroller<br>Peach twig borer<br>Pecan leaf casebearer<br>Pecan nut casebearer<br>Pecan phylloxera<br>Stinkbug spp.<br>Walnut aphid<br>Yellow pecan aphid | 4.5 – 11.2 fl oz/A of product |
| Brown mite<br>San jose scale (crawlers)<br>Pacific mite<br>Two spotted spider mites<br>Walnut husk fly | 11.2 fl oz/A of product |

**RESTRICTIONS**

**PHI:** Do not apply within 7 days of harvest except pecan which is 21 days.

**Application Interval:** Do not make applications less than 15 days apart.

**Maximum Amount per Application:** Do not apply more than 11.2 fl oz/A of product (0.025 lb/A zeta-cypermethrin + 0.075 lb/A bifenthrin) per application.

**Maximum Amount of Hero EW Insecticide allowed per Year:** Do not apply more than 50.4 fl oz/A of product (0.113 lb/A zeta-cypermethrin + 0.338 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.**

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

**REMARKS**

**Application by ground:**

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.

**Application by air:**

Apply the specified dosage in a minimum of 10 gallons of finished spray per acre.

## Avocado

| Pests Controlled | Rate of Application |
|---|---|
| Avocado Lace Bug<br>Avocado Leafhopper<br>Avocado Leafroller<br>Avocado Loopers<br>Avocado Tree Girdler<br>Avocado Whitefly<br>Brown Soft Scale<br>Caterpillars<br>Mirids<br>Omnivorous Loopers<br>Orange Tortrix<br>Scale Crawlers<br>Spanworm<br>Thrips<br>Twig Borers<br>Redbay Ambrosia Beetle | 8.4 fl oz/A of product |

**RESTRICTIONS**
**PHI:** Do not apply within 1 day of harvest.
**Application Interval:** Do not make applications less than 14 days apart.
**Maximum Amount per Application:** Do not apply more than 8.4 fl oz/A of product (0.019 lb/A zeta-cypermethrin + 0.056 lb/A bifenthrin) per application.
**Maximum Amount of Hero EW Insecticide allowed per Year:** Do not apply more than 42.1 fl oz/A of product (0.094 lb/A zeta-cypermethrin + 0.282 lb/A bifenthrin) per year.
Do not make more than 5 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 orchards or cut treated cover crops for feed.
**REMARKS**
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.

## 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 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.
**For containers greater than 5 gallons:** Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ 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 with applicable law, all such risks shall be assumed by Buyer and User, and, to the extent permitted by applicable law, 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. TO THE EXTENT PERMITTED BY APPLICABLE LAW, 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, to the extent permitted by applicable law, Buyer assumes the risk of any such use.**

To the extent permitted by 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 PERMITTED BY 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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