OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION
WASHINGTON, D.C. 20460

October 29th, 2025

Edward Bockrath
Product Registration Manager
US Registrations & Regulatory Affairs
FMC Corporation
2929 Walnut Street
Philadelphia, PA 19104

Subject: Label Amendment - Registration Review Mitigation for Abamectin and Zeta-Cypermethrin
Product Name: F9318
EPA Registration Number: 279-3441
Case Number: 477578 and 476992
Application Date: September 9, 2019, and August 24, 2021

Dear Edward Bockrath:

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

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. 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 Assurance.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling and must be used at your next label printing. You must

submit one 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.

If you have any questions about this letter, please contact Concepción Rodríguez by phone at 202-566-0820, or via email at rodriguez.concepcion@epa.gov.

Sincerely,

Maryam K. Muhammad-Perch, Team Lead
Risk Management and Implementation Branch 4
Pesticide Re-Evaluation Division
Office of Pesticide Programs

ENCLOSURE: Stamped label

RESTRICTED USE PESTICIDE
Toxic to fish and aquatic organisms.
For retail sale to and use only by certified applicators, or persons under their direct supervision and only for those uses covered by the certified applicator's certificate.

ZETA-CYPERMETHRIN	GROUP	3A	INSECTICIDE
ABAMECTIN	GROUP	6	INSECTICIDE

F9318

[Alternate Brand Name: Gladiator Insecticide/Miticide]

EPA Reg. No. 279-3441 **EPA Est. No.**

Active Ingredient:	**By Wt.**
Zeta-Cypermethrin:*	2.01%
Abamectin**	0.91%
Other Ingredients:	97.08%
	100.0%

*Cis/Trans isomer ratio: Max 75% (+/-) cis and Min. 25% (+/-) trans
**CAS No. 65195-56-4 and No. 65195-55-3
This product contains 0.172 pounds active ingredient zeta-cypermethrin and 0.078 pounds active ingredient Abamectin per gallon.
Contains petroleum distillate.

KEEP OUT OF REACH OF CHILDREN

CAUTION

See other panels for additional precautionary information

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

HOTLINE NUMBER

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

NOTE TO PHYSICIAN

This product contains a pyrethroid, avermectins, and petroleum distillate. May pose an aspiration pneumonia hazard. Treatment is symptomatic. Have a person sip a glass of water if able to swallow. If toxicity from exposure has progressed to severe vomiting, the extent of resultant fluid and electrolyte imbalance should be gauged. Since avermectins are believed to enhance GABA activity in animals, it is probably wise to avoid drugs that enhance GABA activity (barbiturates, benzodiazepines, and volproic acid).

For Emergency Assistance Call 1-800-321-1FMC (1362).

Sold By

FMC Corporation
2929 Walnut Street
Philadelphia, PA 19104

Net Contents:

ACCEPTED
10/29/2025
Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 279-3441

D-4303 091825

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PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

CAUTION

Harmful if swallowed. Causes mild eye irritation. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

Personal Protective Equipment:

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, or viton ≥ 14 mils.
- Shoes plus socks

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

User Safety Requirements

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

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.

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.

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. Exception; for grape girdling, cane turning, and tying in grapes, do not enter or allow worker entry into treated areas during the restricted-entry interval of (REI) of 4-days.

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, and shoes plus socks.

Environmental Hazards

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

The use of this product 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.**

The use of this product may pose a risk to threatened and endangered species of fish, amphibians, crustaceans (including fresh water shrimp), and insects. All use of this product in the state of California should comply with the recommendations of the California Endangered Species Project. Before using this product in California, consult with your agriculture commissioner to determine use limitations that apply in your area.

This product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having a medium potential for reaching both surface water and aquatic sediment via runoff for several weeks to months after application. A level, well maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of abamectin from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall is forecast to occur within 48 hours.

Attention: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

DIRECTIONS FOR USE

Restricted Use Pesticide

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

F9318 insecticide/miticide is an emulsifiable in water formulation with two modes of action. F9318 insecticide/miticide will control insect and mite pests on the crops listed within this label when applied according to the Directions of Use unless otherwise directed by registered supplemental labeling. Thorough coverage is essential for good insect and mite control.

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.

Rate of application is variable according to the pest. Use lower rates under light to moderate infestations; higher rates under heavy insect pressure. Arid climates generally require higher rates.

Following best management practices can help reduce risk to terrestrial pollinators. Examples of best management practices 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 the 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/stateagencies.html.

Chemigation:

Do not apply through any type of irrigation system.

Adjuvants:

The use of a spray adjuvant that meets or exceeds CDPA Adjuvant Certification is recommended for optimum performance. Refer to the individual crop recommendation sections of this label for specific adjuvant type and use rates. Do not use binder or sticker type adjuvants.

Resistance Management:

For resistance management, please note that F9318 Insecticide/Miticide contains both a Group 3A and Group 6 insecticides. Any insect population may contain individuals naturally resistant to F9318 Insecticide/Miticide and other Group 3A or Group 6 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 F9318 Insecticide/Miticide or other Group 3A and Group 6 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.
- For further information or to report suspected resistance contact FMC representatives at 1-800-331-3148 or at www.fmc.com.

Rotational Crops:

For crops that have both zeta-cypermethrin and abamectin tolerances, the plant back is immediate. All other crops may be rotated 30 days following the final application.

Buffer Zones:

Do not apply with ground application equipment within 25 ft., or with aircraft within 150 ft. of lakes, reservoirs, rivers, permanent streams, marshes, pot holes, natural ponds, estuaries, or commercial fish farm ponds.
In New York State this product cannot be applied within 100 feet (using ground equipment) to 300 feet (using aerial equipment) of coastal marshes or streams that drain into coastal marshes.

Vegetative Buffer Zones

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 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). o 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:
o The area of application is considered prime farmland (as defined in 7 CFR § 657.5).
o 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.
o A functional terrace system is maintained on the area of application.
o Water and sediment control basins for the area of application are functional and maintained.
o The area of application is less than or equal to 10 acres.

Rice fields are not required to have a vegetative filter strip.

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://wwwregulations.gov/document?D=EPA-HQ-OPP-2008-0331-0175

Buffer Zone for Ground Application (groundboom or airblast)

Do not apply within 25 feet of aquatic habitats (such as, but not limited to lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries, and commercial fish farm ponds).

Buffer Zone for non-ULV (ultra low volume) aerial application

Do not apply within 150 feet of aquatic habitats such as, but not limited to lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries, and commercial fish farm ponds).

Buffer Zone for ULV (ultra low volume) aerial application
Do not apply within 450 feet of aquatic habitats such as, but not limited to lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries, and commercial fish farm ponds).

Runoff Prevention

To protect the environment, do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters or surface waters. Applying this product in calm weather when rain is not predicted for the next 24 hours will help 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 runoff to water bodies or drainage systems.

MANDATORY SPRAY DRIFT MANAGEMENT

Aerial Applications:

- Do not release spray at a height greater than 10 ft above the ground or vegetative canopy, unless a greater application height is necessary for pilot safety.
- Applicators are required to select the nozzle and pressure that deliver medium or coarser droplets in accordance with the most current version of the American Society of Agricultural & Biological Engineers Standard 641 (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 not exceed 65% of the wingspan for fixed wing aircraft or 75% of the rotor diameter for helicopters. Otherwise, the boom length must not exceed 75% of the wingspan for fixed wing aircraft or 90% of the rotor diameter for helicopters.
- If the windspeed is 10 miles per hour or less, applicators must use ½ swath displacement upwind at the downwind edge of the field. When the windspeed is between 11-15 miles per hour, 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 the row end and when spraying the outer row.
- Do not apply during temperature inversions.

Ground Boom Applications:

- User must only apply with the release height recommended by the manufacturer, but no more than 4 feet above the ground or crop canopy.
- Applicators are required to select the nozzles and pressure that deliver medium or coarser droplets in accordance with the most current version of the American Society of Agricultural & Biological Engineers Standard 572 (ASAE 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) indicates 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.

Observe the following precautions when using ground application to spray tree crops or hops in the vicinity of aquatic areas such as lakes, reservoirs, permanent streams, marshes, potholes, natural ponds, estuaries, or commercial fish ponds:

- Do not apply within 110 ft. upwind of aquatic areas or when wind speed is above 8 mph.
- Spray last 3 rows windward of aquatic areas using nozzles on one side only, with spray directed away from the aquatic areas.
- Avoid spray going over tops of trees by adjusting or turning off top nozzles. Shut off nozzles on the side away from the grove/orchard when spraying the outside row. Shut off nozzles when turning at ends of row and passing tree gaps in rows.

Do not apply using aerial application in New York State.

Do not apply F9318 using aerial applications to the following crops: Apples, Celeriac, Grapes, Pears, Stone Fruit Group and the Tree Nut Group.

Tank-Mixture
F9318 Insecticide/Miticide may be applied in tank mixtures with other products approved for use on registered crops. Observe all restrictions and precautions which appear on the labels of these products. Test for compatibility of products before mixing.

Maximum Usage when Applying Abamectin Products to the Same Crops Within the Same Season

Crop	Max Seasonal Total when applying Abamectin (lb ai/A)	
	F9318 (279-3441)	Abamectin
Apples	0.024	0.047
Avocados	0.046	0.047
Celeriac	0.036	0.056
Citrus – Crop Group 10	0.024	0.047
Cotton	0.024	0.038
Cucurbits – Crop Group 9	0.036	0.056
Dry Bean	0.036	0.056
Fruiting Vegetables – Crop Group 8	0.036	0.056
Grapes	0.024	0.038
Leafy Vegetables – Crop Group 4	0.036	0.056
Onion, bulb – Crop Subgroup 0-07A	0.036	0.056
Pears	0.024	0.047
Stone Fruit – Crop Group 12	0.036	0.047
Tuberous and Corm Vegetables – Crop Subgroup 1C	0.036	0.056
Tree Nut – Crop Group 14	0.036	0.047

Maximum Usage when Applying Zeta-Cypermethrin and Cypermethrin Products to the Same Crops Within the Same Season

Do not apply more than the maximum seasonal total for any product when used alone AND do not apply more than the combined maximum seasonal total of cypermethrin and zeta-cypermethrin when using more than one product containing these active ingredients as outlined in the table below.

Crop	Max Seasonal Total when applying an individual product (lb ai/A)					Maximum Seasonal Total (lb ai/A) when applying Zeta-Cypermethrin products to the same crops	Maximum Seasonal Total (lb ai/A) When Applying Cypermethrin and Zeta-Cypermethrin Products to the Same Crop
	Zeta-cypermethrin				Cypermethrin		
	F9318	Mustang Insecticide	Mustang Maxx Insecticide	Hero Insecticide	(Any cypermethrin product)		
Apples	0.05	0.3	0.15	NA[2]	NA[3]	0.3	NA[3]
Avocado	0.05	0.3	0.15	NA[2]	NA[3]	0.3	NA[3]
Celeriac	0.075	0.3	0.15	0.1121	NA[3]	0.3	NA[3]
Citrus - Crop Group 10	0.05	0.2	NA[1]	NA[2]	NA[3]	0.2	NA[3]
Cotton	0.05	0.3	0.15	0.1121	0.6	0.3	0.6
Cucurbits - Crop Group 9	0.075	0.3	0.15	0.1	NA[3]	0.3	NA[3]
Dry Bean	0.075	0.3	0.15	0.067	NA[3]	0.3	NA[3]
Fruiting Vegetables - Crop Group 8	0.075	0.3	0.15	0.1*	NA[3]	0.3	NA[3]
Grapes	0.05	0.3	0.15	0.025	NA[3]	0.3	NA[3]
Leafy Vegetables - Crop Group 4	0.075	0.3	0.15	NA[2]	0.6	0.3	0.6
Onion, bulb – Crop Subgroup 3-07A	0.075	0.25	0.125	NA[2]	NA[3]	0.25	NA[3]
Pears	0.05	0.3	0.15	NA[2]	NA[3]	0.3	NA[3]
Stone Fruit - Crop Group 12	0.075	0.3	0.15	NA[2]	NA[3]	0.3	NA[3]
Tuberous and Corm Vegetables - Crop Subgroup 1C	0.075	0.3	0.15	0.1121	NA[3]	0.3	NA[3]
Tree Nut – Crop Group 14	0.075	0.25	0.125	0.1121	0.6	0.25	0.6

*This maximum seasonal rate pertains to tomatoes, for other fruiting vegetables refer to the specific Hero labels
NA[1] – Not applicable: Mustang Maxx is not labeled for use on this crop
NA[2] – Not applicable: The Hero products are not labeled for use on this crop
NA[3] – Not applicable: Cypermethrin is not labeled for use on this crop.
Always follow application rates, use instructions, and restrictions on the individual product labels.

Crop	PHI	Target Pests	Rate	Special Directions
Apples (azarole, crabapple, loquat, mayhaw, medlar)	28 days	Apple Curculio Apple Maggot Codling Moth European Apple Sawfly European Red Mite Green Fruitworm Japanese Beetle Leafroller spp. Lesser Appleworm McDaniel Spider Mite Oblique Banded Leafroller Oriental Fruit Moth Pandemis Leafroller Pear Psylla Plum Curculio Potato Leafroller Redbanded Leafroller Rosy Apple Aphid San Jose Scale Spirea Aphid Stink Bugs Tarnished Plant Bug Tentiform Leafminer Twospotted Spider Mite Tufted Apple Bud Moth Variegated Leafroller White Apple Leafhopper White Apple Leafroller	Concentrate Sprays 19 fl oz/A Dilute Sprays 4.75 fl oz per 100 gallons based upon a dilute spray volume of 400 gal/A	**Method of Application** Broadcast ground only (minimum 40 gallons per acre). **Timing** Begin applications at pink and/or petal fall through first cover to protect developing fruit and foliage from the target insect pest and mite species common to the production area. Timing and frequency of applications should be based upon insect populations reaching locally determined economic threshold levels. Avoid applications when honey bees are actively foraging by applying during the early morning or evening hours. **Application Interval** Do not make applications less than 21 days apart. **Adjuvants** Surfactants can improve pest control. Do not use binder or sticker type surfactants. Vegetable oil can be used as a spray additive (1 qt/A). Use of a horticulture spray oil fewer than 14 days before or after applying Captan® or after sulfur-containing products can result in phytotoxicity and crop loss. A nonionic surfactant is recommended to avoid fruit injury such as russetting on certain varieties. **Spider Mites**: For better residual control of spider mites, applications should be made as close as possible to petal fall on newer leaves. Applications for spider mite control should be limited to a period from petal fall through 6 weeks following petal fall. Heavy mite pressure may need additional miticide for effective control. Apply before mites reach a threshold of 5 per leaf. **Tentiform Leafminer:** Apply targeting egg and early sap feeder stages of first and second generation tentiform leafminers when local thresholds are reached. Do not apply during bloom. **White Apple Leafhopper** (not for use west of Rocky Mountains): Application limited to first generation white apple leafhopper. Apply soon after petal fall.

		Restrictions: 1. Do not apply within 28 days of harvest. 2. Do not apply more than 19 fl oz of F9318 per acre per application . 3. Do not apply more than 38 fl oz of F9318 per acre annually. Refer to seasonal max tables at the beginning of the label when making additional applications of other products containing either zeta-cypermethrin or abamectin. 4. Do not make more than 2 consecutive applications of F9318 or any other product containing abamectin or zeta-cypermethrin. 5. Do not make applications less than 21 days apart 6. Do not apply using aerial applications. **Grazing Restrictions**: Do not allow livestock to graze or feed treated foliage to livestock.

Crop	PHI	Target Pests	Rate	Special Directions
Avocado	14 days	Ambrosia beetle (adults) Avocado Lace Bug Avocado Leafhopper Avocado Leafroller Avocado Loopers Avocado Tree Girdler Avocado Whitefly Brown Soft Scale Caterpillars Mirids Omnivorous Loopers Orange Tortrix Persea Mites Scale Crawlers Spanworm Thrips Twig Borers	19 fl ounces per acre	**Method of Application** Apply F9318 using broadcast ground application equipment (minimum 20 gallons per acre) or aerial application. (Aerial application is not the preferred method of application, but permitted.) **Timing** Apply as required by scouting. Timing and frequency of applications should be based upon insect populations reaching locally determined economic threshold levels. Avoid applications when honey bees are actively foraging by applying during the early morning or evening hours. **Application Interval** Do not make applications less than 30 days apart. **Adjuvants** F9318 should be mixed with a spray adjuvant. 1%-4% v/v of a horticultural spray oil (not dormant oil) approved for use on avocados is recommended. Do not use binder or sticker type adjuvants. Applying the combination of F9318 and horticultural spray oil fewer than 14 days before or after sulfur containing products can result in phytotoxicity and crop loss. A non-ionic surfactant may be used instead of horticultural spray oil to avoid fruit injury such as russetting on certain varieties. Note: To prevent crop injury, test on a small area before making wide area application **Thrips:** For best control apply when immature thrips are first observed and before numbers exceed 5 per leaf/fruit. For best results use ground application.
		Restrictions: 1. Do not apply within 14 days of harvest. 2. Do not apply more than 19 fl oz of F9318 per acre per application. 3. Do not apply more than 76 fl oz of F9318 per acre annually. Refer to seasonal max tables at the beginning of the label when making additional applications of other products containing either zeta-cypermethrin or abamectin. 4. Do not make more than 2 consecutive applications of F9318 or any other product containing abamectin or zeta-cypermethrin. 5. Do not make applications less than 30 days apart. **Grazing Restrictions**: Do not allow livestock to graze in treated orchards or feed treated foliage to livestock.		

Crop	PHI	Target Pests	Rate	Special Directions
Celeriac	7 days	Aphid spp. Armyworm spp.* Cabbageworm Celery Leaf Tier Corn Earworm Cutworm spp. Diamondback Moth European Corn Borer Fire Ant spp. Flea Beetle spp. Green Cloverworm Hornworm spp. Imported Cabbageworm Looper spp. Tobacco Budworm** Twospotted Spider Mite** Velvetbean Caterpillar Whitefly (adult) Twospotted Spider Mite** Whitefly (adult)	19 fl ounces per acre	**Method of Application** Broadcast ground only (minimum 20 gallons per acre). **Timing** Apply as required by scouting. Timing and frequency of applications should be based upon insect populations reaching locally determined economic threshold levels. **Application Interval** Do not make applications less than 7 days apart. **Adjuvants** Surfactants can improve pest control. A nonionic surfactant is recommended. Do not use binder or sticker type surfactants. * Includes all armyworm species except beet armyworm ** Pyrethroid resistance is common for this pest. Please consult your local or state agricultural authority to determine if resistant pest populations are in your area. If so, refer to the resistance management statement in the "DIRECTION FOR USE" section of this label. Heavy mite pressure may need additional miticide for effective control.
		Restrictions: 1. Do not apply within 7 days of harvest. 2. Do not apply more than 19 fl oz of F9318 per acre per application. 3. Do not apply more than 57 fl oz of F9318 per acre annually. Refer to seasonal max tables at the beginning of the label when making additional applications of other products containing either zeta-cypermethrin or abamectin. 4. Do not make more than 2 consecutive applications of F9318 or any other product containing abamectin or zeta-cypermethrin. 5. Do not make applications less than 7 days apart. 6. Do not apply using aerial applications.		

Crop	PHI	Target Pests	Rate	Special Directions
Citrus Group Crop Group 10 Including: Calamondin, Citrus citron, Citrus hybrids (includes chironja, tangelo, tangor), Grapefruit, Kumquat, Lemon, Lime, Mandarin (tangerine), Sour orange, Sweet orange, Pummelo, and Satsuma mandarin Uniq Fruit	7 days	Armyworm, Beet* Asian Citrus Psyllid Asian Cockroach Blue-Green Citrus Root Weevils Broad Mite Citrus Bud Mite Citrus Leafminer Citrus Rust Mite Citrus Thrips Cutworms Diaprepes Root Weevil Fire Ants Fuller Rose Beetle Glassy-Winged Sharpshooter Grasshopper Katydid Leafhoppers Leafrollers Little Leaf Notcher Loopers Orange Tortrix Orangedog Caterpillars Plantbugs	19 fl ounces per acre	**Method of Application** Ground application is allowed for all pests. Apply by ground equipment using sufficient water to obtain full coverage of foliage in a minimum of 20 gallons for concentrate spray or a minimum of 100 gallons for dilute spray. Aerial application may result in reduced level and duration of control compared with ground application. For aerial application use a minimum of 10 gallons of finished spray per acre. **Timing** Apply as required by scouting. Timing and frequency of applications should be based upon insect populations reaching locally determined economic threshold levels. **Application Interval** Do not make applications less than 30 days apart. **Adjuvants** F9318 must be applied with a spray adjuvant or vegetable/horticultural oil. Surfactants can improve pest control. A nonionic surfactant is recommended. Do not use binder or sticker type surfactants. **Asian Citrus Psyllid:** Apply F9318 to protect newly expanded expanding foliage flush during spring, summer, or fall. F9318 will only control adults and nymphs at the time of application. Use a minimum of 2 gallons per acre in a low volume concentrate spray for ground application. **Mites:** Apply F9318 during spring, summer, and/or fall when mites first appear. **Citrus Bud Mite:** For best results apply F9318 at bud swell. **Citrus Leafminer:** Apply F9318 during spring, summer, or fall to protect new growth. Use a minimum of 2 gallons per acre in a low volume concentrate spray for ground application. **Citrus Thrips:** Apply as required by scouting. Timing and frequency of applications should be based upon insect populations reaching locally determined economic threshold levels.

		Restrictions: 1. Do not apply within 7 days of harvest. 2. Do not apply more than 19 fl oz of F9318 per acre per application. 3. Do not apply more than 38 fl oz of F9318 per acre annually. Refer to seasonal max tables at the beginning of the label when making additional applications of other products containing either zeta-cypermethrin or abamectin. 4. Do not make applications less than 30 days apart. 5. For resistance management do not use F9318 in citrus nurseries 6. Aerial application is permitted only for citrus leafminer and Asian citrus psyllid control. 7. Aerial applications are not allowed in California. **Grazing Restrictions:** Do not allow livestock to graze or feed treated foliage to livestock.

Crop	PHI	Target Pests	Rate	Special Directions
Cotton	20 days	Armyworm, Beet* Armyworm, Fall Armyworm, Yellowstripped Bollworm Cabbage Looper Carmine Spider Mite* Cotton Aphid* Cotton Fleahopper Cotton Leafperforator Cutworms European Corn Borer Lygus Bugs Pacific Spider Mite* Pink Bollworm Saltmarsh Caterpillar Soybean (banded) Thrips Stink Bug spp. Tobacco Budworm* Tobacco Thrips Twospotted Spider Mite* Whitefly (adults)*	19 fl ounces per acre	**Method of Application** Broadcast ground (minimum 5 gallons per acre) or air (minimum 5 gallons per acre) **Timing** Apply as required by scouting. Timing and frequency of applications should be based upon insect populations reaching locally determined economic threshold levels. **Application Interval** Wait at least 21 days between applications. **Adjuvants** Surfactants can improve pest control. A nonionic surfactant is recommended. Do not use binder or sticker type surfactants. **Notes:** For control of mites apply F9318 when mites first appear. The use rate will depend on plant size and foliage density. Repeat applications on 21-day interval if needed to maintain mite control. The lower use rate of 7.5 to 13 ounces are only recommended if cotton is early season and under 10 inches in height. Do not use less than 7.5 ounces. * Pyrethroid resistance is common for this pest. Please consult your local or state agricultural authority to determine if resistant pest populations are in your area. If so, refer to the resistance management statement in the "DIRECTION FOR USE" section of this label. Heavy mite pressure may need additional miticide for effective control.
		Restrictions: 1. Do not apply within 20 days of harvest. 2. Do not apply more than 19 fl oz of F9318 per acre per application. 3. Do not apply more than 38 fl oz of F9318 per acre annually. Refer to seasonal max tables at the beginning of the label when making additional applications of other products containing either zeta-cypermethrin or abamectin. 4. Do not make more than 2 consecutive applications of F9318 or any other product containing abamectin or zeta-cypermethrin. Do not make applications less than 21 days apart. **Grazing Restrictions:** Do not allow livestock to graze or feed treated foliage to livestock.		

Crop	PHI	Target Pests	Rate	Special Directions
Cucurbit group Crop Group 9 Including: Chayote (fruit) (Sechium edule), Chinese waxgourd (Chinese preserving melon) (Benincasa hispida, Citron melon (Citrullus lanatus var. citroides), Cucumber (Cucumis sativus), Gherkin (Cucumis anguria), Gourd, edible (Lagenaria spp.) (includes hyotan, cucuzza); (Luffa acutangula, L. cylindrica) (includes hechima, Chinese okra), Momordica spp. (includes balsam apple, balsam pear, bitter melon, Chinese cucumber), Muskmelon (hybrids and/or cultivars of Cucumis melo) (includes true cantaloupe, cantaloupe, casaba, crenshaw melon, golden pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon, and snake melon), Pumpkin (Cucurbita spp.); Squash, summer (Cucurbita pepo var. melopepo) (includes crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini), Squash, winter (Cucurbita maxima, C. moschata) (includes butternut squash, calabaza, hubbard squash); (C. mixta; C. pepo) (includes acorn squash, spaghetti squash), Watermelon (includes hybrids and/or varieties of Citrullus lanatus)	7 days	Aphid spp. Armyworm, Beet* Cabbage Looper Corn Earworm Cucumber Beetle spp. (adult)Cutworm spp. Leafhopper spp. Leafminer Melonworm Pickleworm Plant Bug spp. Rindworm Spider Mites* Squash Bug Squash Vine Borer Stinkbug spp.	19 fl ounces per acre	**Method of Application** For cutworms apply as a broadcast application in a minimum of 10 gallons per acre. For foliar applications apply broadcast ground (minimum 20 gallons per acre) or air (minimum 5 gallons per acre **Timing** Apply as required by scouting. Timing and frequency of applications should be based upon insect populations reaching locally determined economic threshold levels. **Application Interval** Do not make applications less than 7 days apart. **Adjuvants** Surfactants can improve pest control. A nonionic surfactant is recommended. Do not use binder or sticker type surfactants. * Pyrethroid resistance is common for this pest. Please consult your local or state agricultural authority to determine if resistant pest populations are in your area. If so, refer to the resistance management statement in the "DIRECTION FOR USE" section of this label. Heavy mite pressure may need additional miticide for effective control.
		Restrictions: 1. Do not apply within 7 days of harvest. 2. Do not apply more than 19 fl oz of F9318 per acre per application. 3. Do not apply more than 57 fl oz of F9318 per acre annually. Refer to seasonal max tables at the beginning of the label when making additional applications of other products containing either zeta-cypermethrin or abamectin 4. Do not make more than 2 consecutive applications of F9318 or any other product containing abamectin or zeta-cypermethrin. 5. Do not make applications less than 7 days apart. 6. Do not apply by air in New York.		

Crop	PHI	Target Pests	Rate	Special Directions
Dry Bean Snap Bean; Wax Bean; Asparagus Bean; Chinese Longbean; Moth Bean; Yardlong Bean; Lima Bean; Broad Bean (Fava Bean); Blackeyed Pea; Southern Pea; Grain Lupin; Sweet Lupin; White Lupin; White Sweet Lupin; Kidney Bean; Navy Bean; Pinto Bean; Adzuki Bean; Catjang; Cowpea*; Crowder Pea; Moth Bean; Mung Bean; Rice Bean; Urd Bean; Chickpea (Garbanzo Bean) * For use on cowpeas that are grown for dry seed only. Do not allow livestock to graze cowpea forage and do not harvest cowpea forage or hay for livestock feed.	21 days	Alfalfa Caterpillar Aphid spp. Armyworm spp.* Armyworm, Beet** Armyworm, Fall Bean Leaf beetle Blister Beetle spp. Colorado Potato Beetle Corn Borer, European Corn Borer, Southwestern Corn Earworm Corn Rootworm (adult) Cowpea Curculio Cucumber Beetle Cutworm spp. Flea Beetle spp. Grasshoppers Green Cloverworm Ground Beetles Imported Cabbageworm Japanese Beetle Leaf Skeletonizer spp. Leafhopper spp. Leafminers Lesser Cornstalk Borer Looper spp. Mexican Bean Beetle Pea Leaf Weevil Pea Weevil Plant Bug spp. Potato Leafhopper Saltmarsh Caterpillar Seedcorn Beetle Seedcorn Maggot (adult) Silverspotted Skipper Spider Mites Spittlebug Stink Bug spp. Thistle Caterpillar (Painted lady) Three-cornered Alfalfa Hopper Thrips spp. Tobacco Budworm** Velvetbean Caterpillar Webworm spp. Whitefly spp. (adult) Woolly Bear Caterpillar	19 fl ounces per acre	**Method of Application** Apply by broadcast ground or aerial application Apply in a minimum of 10 gallons of water by ground and 5 gallons of water by air. **Timing** Apply as required by scouting. Timing and frequency of applications should be based upon insect populations reaching locally determined economic threshold levels. **Application Interval** Do not make applications less than 7 days apart. **Adjuvants** Surfactants can improve pest control. A nonionic surfactant is recommended. Do not use binder or sticker type surfactants * Includes all armyworm species except beet armyworm ** Pyrethroid resistance is common for this pest. Please consult your local or state agricultural authority to determine if resistant pest populations are in your area. If so, refer to the resistance management statement in the "DIRECTION FOR USE" section of this label. Heavy mite pressure may need additional miticide for effective control.
		Restrictions: 1. Do not apply within 21 days of harvest. 2. Do not apply more than 19 fl oz of F9318 per acre per application. 3. Do not apply more than 38 fl oz of F9318 per acre annually. Refer to seasonal max tables at the beginning of the label when making additional applications of other products containing either zeta-cypermethrin or abamectin. 4. Do not make more than 2 consecutive applications of F9318 or any other product containing abamectin or zeta-cypermethrin. 5. Do not make applications less than 7 days apart. 6. Do not apply by air in New York.		

Crop	PHI	Target Pests	Rate	Special Directions
Fruiting Vegetable group Crop Group 8 Including: Eggplant (Solanum melongena), Groundcherry (Physalis spp.), Pepino (Solanum muricatum), Pepper (Capsicum spp.) (includes bell pepper, chili pepper, cooking pepper, pimento, sweet pepper), Tomatillo (Physalis ixocarpa), Tomato (Lycopersicon esculentum)	7 days	Aphid spp.* Armyworm, Beet* Armyworm, Fall Armyworm, Southern Armyworm, True Armyworm, Yellowstriped Broad Mite Brown Stink Bug Cabbage Looper Celery Leaf Tier Colorado Potato Beetle Corn Earworm Cucumber Beetle Cutworm spp. European Corn Borer Flea Beetle Garden Webworm Grasshoppers Green Stinkbug Hornworms Leafhopper spp. *Liriomyza* Leafminers Lygus Bugs Meadow Spittlebug Pepper Maggot (adults) Pepper Weevil Southwestern Corn Borer Spider Mites *Thrips palmi* Tobacco Budworm* Tobacco Fruitworm Tomato Pinworm Tomato Psyllid Tomato Russet Mite Whitefly spp.*	19 fl ounces per acre	**Method of Application** Broadcast ground (minimum 20 gallons per acre) or air (minimum 5 gallons per acre). **Timing** Apply as required by scouting. Timing and frequency of applications should be based upon insect populations reaching locally determined economic threshold levels. **Application Interval** Do not make applications less than 7 days apart. **Adjuvants** Surfactants can improve pest control. A nonionic surfactant is recommended. Do not use binder or sticker type surfactants. **Mites:** For optimum control apply F9318 when mites first appear. Heavy mite pressure may need additional miticide for effective control. ***Thrips palmi*:** For thrips control apply F9318 when first observed. * Pyrethroid resistance is common for this pest. Please consult your local or state agricultural authority to determine if resistant pest populations are in your area. If so, refer to the resistance management statement in the "DIRECTION FOR USE" section of this label.
		Restrictions: 1. Do not apply within 7 days of harvest. 2. Do not apply more than 19 fl oz of F9318 per acre per application. 3. Do not apply more than 57 fl oz of F9318 per acre annually. Refer to seasonal max tables at the beginning of the label when making additional applications of other products containing either zeta-cypermethrin or abamectin. 4. Do not make more than 2 consecutive applications of F9318 or any other product containing abamectin or zeta-cypermethrin. Do not make applications less than 7 days apart. 5. For resistance management, do not apply to plants being grown for transplants. 6. Do not apply by air in New York.		

Crop	PHI	Target Pests	Rate	Special Directions
Grapes	28 days	Asian Lady Bird Beetle Brown Marmorated Stinkbug Cutworm spp. Eastern grape leafhopper Grape Berry Moth Grape Vine Root Borer Japanese Beetle (adult) Lady Bird Beetle Pacific Spider mite Tarnished Plantbug Twospotted Spider Mite Variegated Leafhopper Western Grape Leafhopper Western Grapeleaf Skeletonizer Willamette Spider Mite	19 fl ounces per acre	**Method of Application** Broadcast ground only (minimum 50 gallons per acre). **Timing** Apply as required by scouting. Timing and frequency of applications should be based upon insect populations reaching locally determined economic threshold levels. **Application Interval** Do not make applications less than 21 days apart. **Adjuvants** Surfactants can improve pest control. A nonionic surfactant is recommended. Do not use binder or sticker type surfactants. **Spider Mites:** Apply when mites first appear and before motiles exceed 5 per leaf. Heavy mite pressure may need additional miticide for effective control. **Western grapeleaf skeletonizer:** Apply when larvae are first observed. Apply immediately after egg hatch for optimum control.
		Restrictions: 1. Do not apply within 28 days of harvest. 2. Do not apply more than 19 fl oz of F9318 per acre per application 3. Do not apply more than 38 fl oz of F9318 per acre annually. Refer to seasonal max tables at the beginning of the label when making additional applications of other products containing either zeta-cypermethrin or abamectin. 4. Do not make more than 2 consecutive applications of F9318 or any other product containing abamectin or zeta-cypermethrin. 5. Do not make applications less than 21 days apart. 6. Do not apply using aerial applications. **Grazing Restrictions:** Do not allow livestock to graze in treated vineyards		

Crop	PHI	Target Pests	Rate	Special Directions
Leafy Vegetable group (except Brassica) Crop Group 4 Including: Amaranth (leafy amaranth, Chinese spinach, tampala); Arugula (Roquette); Cardoon, Celery, Celery, Chinese, Celtuce, Chervil, Chrysanthemum, edible leaved and garland, Cilantro (not for use on cilantro grown for seed or coriander), Corn salad, Cress, garden, Cress, upland, (yellow rocket, winter cress); Dandelion, Dock (sorrel), Endive (escarole), Fennel, Florence (finochio), Lettuce, head and leaf, Orach, Parsley, Purslane, garden, Purslane, winter, Radicchio (red chicory), Rhubarb, Spinach (including New Zealand and vine, Malabar spinach, Indian spinach), and Swiss chard	7 days	Aphid spp. Armyworms* Broad Mite Colorado Potato Beetle Corn Earworm Crickets Cucumber Beetles Cutworms Diamondback Moth* Flea Beetles Imported Cabbageworm Ground Beetles Leafhoppers *Liriomyza* Leafminers Loopers Lygus Bugs Onion Thrips Saltmarsh Caterpillar Spider Mites Stink Bugs *Thrips palmi* Tobacco Budworm* Tomato Pinworm Tomato Psyllid Tomato Russet Mite Western Flower Thrips Whitefly spp. Wireworm (adults)	19 fl ounces per acre	**Method of Application** Broadcast ground (minimum 20 gallons per acre) or air (minimum 5 gallons per acre). **Timing** Apply as required by scouting. Timing and frequency of applications should be based upon insect populations reaching locally determined economic threshold levels. **Application Interval** Do not make applications less than 7 days apart. **Adjuvants** Surfactants can improve pest control. A nonionic surfactant is recommended. Do not use binder or sticker type surfactants. **Spider Mites:** Apply when mites first appear and repeat as needed to maintain control (See **Restrictions** below). Heavy mite pressure may need additional miticide for effective control. **Leafminers:** Apply when adult flies are first observed and repeat as needed to maintain control (See **Restrictions** below) * Pyrethroid resistance is common for this pest. Please consult your local or state agricultural authority to determine if resistant pest populations are in your area. If so, refer to the resistance management statement in the "DIRECTION FOR USE" section of this label.
		Restrictions: 1. Do not apply within 7 days of harvest. 2. Do not apply more than 19 fl oz of F9318 per acre per application 3. Do not apply more than 57 fl oz of F9318 per acre annually. Refer to seasonal max tables at the beginning of the label when making additional applications of other products containing either zeta-cypermethrin or abamectin. 4. Do not make more than 2 consecutive applications of F9318 or any other product containing abamectin or zeta-cypermethrin. 5. Do not make applications less than 7 days apart. 6. For resistance management, do not apply to plants being grown for transplants. 7. Do not apply by air in New York.		

Crop	PHI	Target Pests	Rate	Special Directions
Onion, Bulb Crop Subgroup 3-07A Including: Onion, bulb including daylily, bulb; fritillaria, bulb; garlic, bulb; great-headed, bulb; garlic, serpent; lily, bulb; onion, Chinese, bulb; onion, pearl; onion, potato, bulb; shallot, bulb; cultivars, varieties, and/or hybrids of these.	30 days	Aphids Armyworms* Cutworms *Liriomyza* Leafminers Onion maggot (adults) Onion Thrips* Stink Bugs	19 fl ounces per acre	**Method of Application** Broadcast ground (minimum 20 gallons per acre) or air (minimum 5 gallons per acre). **Timing** Apply as required by scouting. Timing and frequency of applications should be based upon insect populations reaching locally determined economic threshold levels. **Number of Applications** Make 2 consecutive applications of F9318, then rotate to chemistry with a different mode of action before making additional applications of F9318 or other products containing a pyrethroid or avermectin. **Application Interval** Do not make applications less than 7 days apart. **Adjuvants** Surfactants can improve pest control. A nonionic surfactant is recommended. Do not use binder or sticker type surfactants. **Leafminers:** Apply when adult leafminer flies are first observed and repeat as needed to maintain control. (See **Restrictions** below) * Pyrethroid resistance is common for this pest. Please consult your local or state agricultural authority to determine if resistant pest populations are in your area. If so, refer to the resistance management statement in the "DIRECTION FOR USE" section of this label
		Restrictions: 1. Do not apply within 30 days of harvest. 2. Do not apply more than 19 fl oz of F9318 per acre per application. 3. Do not apply more than 38 fl oz of F9318 per acre annually. Refer to seasonal max tables at the beginning of the label when making additional applications of other products containing either zeta-cypermethrin or abamectin. 4. Do not make more than 2 consecutive applications of F9318 or any other product containing abamectin or zeta-cypermethrin. 5. Do not make applications less than 7 days apart. 6. For resistance management, do not apply to plants being grown for transplants. 7. Do not apply by air in New York. **Grazing Restrictions:** Do not graze livestock in treated areas or cut treated crops for livestock food.		

Crop	PHI	Target Pests	Rate	Special Directions
Pears including Oriental pears	28 days	Apple Maggot Codling Moth European Apple Sawfly European Red Mite Green Fruitworm Japanese Beetle Lesser Appleworm McDaniel Spider Mite Oblique Banded Leafroller Oriental Fruit Moth Pandemis Leafroller Pear Psylla Plum Curculio Potato Leafroller Redbanded Leafroller Rosy Apple Aphid Spirea Aphid Stink Bugs Tarnished Plant Bug Tentiform Leafminer Tufted Apple Bud Moth Twospotted Spider Mite Variegated Leafroller White Apple Leafhopper	19 fl ounces per acre	**Method of Application** Broadcast ground only (minimum 40 gallons per acre). **Timing** Begin applications at pink and/or petal fall through first cover to protect developing fruit and foliage from the target insect pest and mite species common to the production area. Timing and frequency of applications should be based upon insect populations reaching locally determined economic threshold levels. Avoid applications when honey bees are actively foraging by applying during the early morning or evening hours. **Application Interval** Do not make applications less than 21 days apart. **Adjuvants** Surfactants can improve pest control. Do not use binder or sticker type surfactants. Vegetable oil can be used as a spray additive (1 qt/A). Use of a horticultural spray oil (not dormant oil) can improve residual spider mite control. Applying the combination of F9318 and horticultural spray oil fewer than 14 days before or after applying sulfur-containing products can result in phytotoxicity and crop loss. A non-ionic surfactant is recommended to avoid fruit injury such as russetting on certain varieties. **Spider Mites**: For better residual control of spider mites, applications should be made as close as possible to petal fall on newer leaves. Applications for spider mite control should be limited to a period from petal fall through 6 weeks following petal fall. Heavy mite pressure may need additional miticide for effective control. Apply before mites reach a threshold of 5 per leaf. **Tentiform Leafminer**: Apply targeting egg and early sap feeder stages of first and second generation tentiform leafminers when local thresholds are reached. Do not apply during bloom.

				White Apple Leafhopper (not for use west of Rocky Mountains): Application limited to first generation white apple leafhopper. Apply soon after petal fall.
		Restrictions: 1. Do not apply within 28 days of harvest. 2. Do not apply more than 19 fl oz of F9318 per acre per application 3. Do not apply more than 38 fl oz of F9318 per acre annually. Refer to seasonal max tables at the beginning of the label when making additional applications of other products containing either zeta-cypermethrin or abamectin. 4. Do not make more than 2 consecutive applications of F9318 or any other product containing abamectin or zeta-cypermethrin. 5. Do not make applications less than 21 days apart. 6. Do not apply using aerial applications. **Grazing Restrictions:** Do not allow livestock to graze or feed treated foliage to livestock.		

Crop	PHI	Target Pests	Rate	Special Directions
Potato/Tuberous & Corm Group, Root and Tuber vegetables Crop Group 1 Arracach, arrowroot; artichoke, Chinese; artichoke, Jerusalem, canna, edible, cassava, bitter and sweet, chayote (root), chufa, dasheen (taro), ginger, leren, potato sweet potato, tanier, turmeric, yam bean, yam, true	14 days	Aphid spp.* Armyworm, Beet* Armyworm Yellowstriped Cabbage Looper Cabbage Maggot Colorado Potato Beetle Cucumber Beetle (adult) Cutworm spp. European Corn Borer Flea Beetle spp. Grasshopper spp. Imported Cabbageworm Leafhopper spp. *Lyriomyza* Leafminers Potato Leafhoppers Potato Psyllid Southern Corn Rootworm (adult) Spider Mites Tarnished Plant Bug Vegetable Weevil Whitefringed Beetle (adult)	19 fl ounces per acre	**Method of Application** Broadcast ground (minimum 20 gallons per acre) or air (minimum 5 gallons per acre. **Timing** Apply as required by scouting. Timing and frequency of applications should be based upon insect populations reaching locally determined economic threshold levels. **Application Interval** Do not make applications less than 7 days apart. **Adjuvants** Surfactants can improve pest control. A nonionic surfactant is recommended. Do not use binder or sticker type surfactants. **Leafminers spp.**: Begin F9318 applications when adult flies are first observed. Repeat applications as needed to maintain control (See **Restrictions** below). Combining F9318 with a sticker or binder type product may reduce leafminer control. **Spider mites:** Repeat F9318 applications as needed to maintain control (See **Restrictions** below). Aerial application may not provide adequate spray coverage which could result in poor mite control. Combinations with products containing sticker or binder type adjuvants may reduce mite control. Heavy mite pressure may need additional miticide for effective control. * Pyrethroid resistance is common for this pest. Please consult your local or state agricultural authority to determine if resistant pest populations are in your area. If so, refer to the resistance management statement in the "DIRECTION FOR USE" section of this label.
		Restrictions: 1. Do not apply within 14 days of harvest. 2. Do not apply more than 19 fl oz of F9318 per acre per application. 3. Do not apply more than 57 fl oz of F9318 per acre annually. Refer to seasonal max tables at the beginning of the label when making additional applications of other products containing either zeta-cypermethrin or abamectin. 4. Do not make more than 2 consecutive applications of F9318 or any other product containing abamectin or zeta-cypermethrin. 5. Do not make applications less than 7 days apart. 6. Do not apply by air in New York state. **Grazing Restrictions:** Do not allow livestock to graze or feed treated foliage to livestock.		

<table>
<tr><th>Crop</th><th>PHI</th><th>Target Pests</th><th>Rate</th><th>Special Directions</th></tr>
<tr><td rowspan="2">Stone Fruit Group
Crop Group12
including: Apricot, Cherry (Sweet and Tart), Nectarine; Peach, Plum (including Chickasaw Plum, Damson Plum, and Japanese Plum), Plumcot, and Prune (fresh)</td><td rowspan="2">21 days</td><td rowspan="2">American Plum Borer
Cherry Fruit Fly
European Red Mite
Green Fruitworm
Leafhoppers
Leafrollers
Lesser Peachtree Borer
Oriental Fruit Moth
Pacific Spider Mite
Peachtree Borer
Plum Curculio
Rose Chafer
Spotted Wing Drosophila
Stink Bugs
Tarnished Plant Bug
Twospotted Spider Mite
Western Cherry Fruit Fly</td><td>Concentrate Sprays
19 fl ounces per acre

Dilute Sprays

4.75 fl oz per 100 gallons based upon a dilute spray volume of 400 gal/A</td><td>Method of Application
Broadcast ground only (minimum 40 gallons per acre).

Timing
Apply as required by scouting. Timing and frequency of applications should be based upon insect populations reaching locally determined economic threshold levels.

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

Adjuvants
Surfactants can improve pest control. A nonionic surfactant is recommended. Do not use binder or sticker type surfactants.

Mites: Apply when mites first appear and repeat as needed to maintain control (See Restrictions below). Heavy mite pressure may need additional miticide for effective control.</td></tr>
<tr><td colspan="3">Restrictions:
1. Do not apply within 21 days of harvest.
2. Do not apply more than 19 fl oz of F9318 per acre per application.
3. Do not apply more than 57 fl oz of F9318 per acre annually. Refer to seasonal max tables at the beginning of the label when making additional applications of other products containing either zeta-cypermethrin or abamectin.
4. Do not make more than 2 consecutive applications of F9318 or any other product containing abamectin or zeta-cypermethrin.
5. Do not make applications less than 21 days apart.
6. Do not apply using aerial application.
Grazing Restrictions: Do not allow livestock to graze or feed treated foliage to livestock.</td></tr>
</table>

Crop	PHI	Target Pests	Rate	Special Directions
Tree Nut Group Crop Group14 Including: Almond, Beech nut, Brazil nut, Butternut, Cashew, Chestnut, Chinquapin, Filbert (hazelnut), Hickory nut, Macadamia nut, Pecan, Pistachios and Walnut (black and English)	21 days	Aphid spp. Codling Moth European Red Mite Filbertworm Hickory Shuckworm Leaffooted Bug Leafroller spp. *Lygus* spp. Navel Orangeworm Pacific Spider Mite Peach Twig Borer Pecan Leaf Casebearer Pecan Nut Casebearer Pecan Phylloxera Redhumped Caterpilliar Stink Bug spp. Strawberry Spider Mite Walnut Aphid Walnut Husk Fly	19 fl ounces per acre	**Method of Application** Broadcast ground only (minimum 40 gallons per acre). **Timing** Apply as required by scouting. Timing and frequency of applications should be based upon insect populations reaching locally determined economic threshold levels. **Application Interval** Do not make applications less than 21 days apart. **Adjuvants** Surfactants can improve pest control. A nonionic surfactant is recommended. Do not use binder or sticker type surfactants. **Spider Mites:** Apply when mites first appear and repeat as needed to maintain control (See **Restrictions** below). Under heavy mite pressure may need additional miticide for effective control.
		Restrictions: 1. Do not apply within 21 days of harvest. 2. Do not apply more than 19 fl oz of F9318 per acre per application. 3. Do not apply more than 57 fl oz of F9318 per acre annually. Refer to seasonal max tables at the beginning of the label when making additional applications of other products containing either zeta-cypermethrin or abamectin. 4. Do not make more than 2 consecutive applications of F9318 or any other product containing abamectin or zeta-cypermethrin. 5. Do not make applications less than 21 days apart. 6. Do not apply using aerial applications. **Grazing Restrictions:** Do not allow livestock to graze or feed treated foliage to livestock.		

STORAGE AND DISPOSAL

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

Pesticide Storage

If storing this product below freezing, user should shake or roll the container to ensure proper product consistency.
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. Do not contaminate other pesticides, fertilizers, water, food, or feed by storage or disposal. In case of spill, avoid contact, isolate area, and keep out animals and unprotected persons. Confine spills. Call CHEMTREC (transportation and spills): 1-(800)-424-9300. To confine spill: If liquid, dike surrounding area or absorb with sand, cat litter or commercial clay. If dry material, cover to prevent dispersal. Place damaged package in a holding container. Identify contents.

Pesticide Disposal

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

Container Disposal

Plastic Container: Non-refillable container. Do not reuse or refill this container. **Triple rinse as follows:** Empty the contents into application equipment or a mix tank and drain for 10 seconds after flow begins to drip. Fill container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. **Then offer for recycling,** if available **or reconditioning**, if appropriate, or puncture and dispose of in a **sanitary landfill.**

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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, to the extent consistent with 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 CONSISTENT WITH 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 buyer assumes the risk of any such use.

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