

279-3380

01/14/2010

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U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs
Registration Division (H7505C)
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460

EPA Reg. Number:
279-3380

Date of Issuance:
JAN 14 2010

Term of Issuance:
Conditional

Name of Pesticide Product:
F9043 EC Insecticide

NOTICE OF PESTICIDE:

☒ Registration
☐ Reregistration

(Under FIFRA as amended)

Name and Address of Registrant (include ZIP Code):

FMC Corporation
1735 Market Street
Philadelphia, PA 19103

Note: Changes in labeling affecting in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is **conditionally** registered in accordance with FIFRA sec. 3(c)(7)(A), provided that:

1. You will submit and/or cite all data required for registration/reregistration of your product under FIFRA sec. 3(c)(5) when the Agency requires all registrants of similar products to submit such data; and submit acceptable responses required for reregistration of your product under FIFRA section 4.
2. You will make the following label changes before you release the product for shipment:
 - a) Revise the EPA Registration Number to read "EPA Reg. No. 279-3380."
 - b) The acute toxicity for this product is as follows:

Acute oral toxicity	II
Acute dermal toxicity	IV
Acute inhalation toxicity	IV
Primary eye irritation	III
Primary dermal irritation	III
Dermal sensitization	Non-Sensitizer

Signature of Approving Official:

Richard Gebken
Richard Gebken Interim Product Manager 13
Insecticide Branch/Registration Division (7505P)

Date:

January 14, 2010

Enclosure

Based on the above toxicity profile please revise the Precautionary Statements to read as follows:

“May be fatal if swallowed. Harmful if absorbed through skin. 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”

Also, based on the acute toxicity for acute dermal and inhalation toxicity (both classified Toxicity Category IV), you are not required to have an “If on skin or clothing” or “If Inhaled” first aid statement.

- c) Move the Engineering Control Statements section to the Precautionary Statements section following the User Safety Recommendations.
- d) Under BUFFER ZONES replace “Only apply products containing zeta-cypermethrin onto fields where a maintained ... etc.” with “Only apply products containing zeta-cypermethrin and bifenthrin onto fields where a maintained ... etc.”
- e) Under *Canola, Crambe, Rapeseed* replace, “Do not make applications less than 7 days apart” with “Do not make applications less than 14 days apart”. Add “Maximum amount of F9043 EC allowed per season”, “Maximum amount of zeta-cypermethrin allowed per season” and “Maximum amount of bifenthrin allowed per season” to the restrictions section.
- f) Under *Field Corn (Grain and Silage), Popcorn, Field Corn Grown for Seed* add, the rate of application for the (At Plant Use), (PRE & PPI) and (Foliar Use). Also add, “Maximum amount of F9043 EC allowed per season”, “Maximum amount of zeta-cypermethrin allowed per season” and “Maximum amount of bifenthrin allowed per season” to the restrictions section.
- g) Under *Sweet Corn (Grain and Silage), Sweet Corn Grown for Seed* add, the rate of application for the (At Plant Use) and (Foliar Use). Also add, “Maximum amount of F9043 EC allowed per season”, “Maximum amount of zeta-cypermethrin allowed per season” and “Maximum amount of bifenthrin allowed per season” to the restrictions section.
- h) Under *Cotton* add, “Maximum amount of F9043 EC allowed per season”, “Maximum amount of zeta-cypermethrin allowed per season” and “Maximum amount of bifenthrin allowed per season” to the restrictions section.
- i) Under *Peanut* add, “Maximum amount of F9043 EC allowed per season”, “Maximum amount of zeta-cypermethrin allowed per season” and “Maximum amount of bifenthrin allowed per season” to the restrictions section. Also add, “Do not feed green immature plants and peanut hay to livestock” to the Restrictions section.

- j) Under *Potato* add, "Maximum amount of F9043 EC allowed per season", "Maximum amount of zeta-cypermethrin allowed per season" and "Maximum amount of bifenthrin allowed per season" to the restrictions section.
- k) Under *Soybean* add, "Maximum amount of F9043 EC allowed per season", "Maximum amount of zeta-cypermethrin allowed per season" and "Maximum amount of bifenthrin allowed per season" to the restrictions section.
- l) Under *Head & Stem Brassica* add, "Maximum amount of F9043 EC allowed per season", "Maximum amount of zeta-cypermethrin allowed per season" and "Maximum amount of bifenthrin allowed per season" to the restrictions section.
- m) Under *Leafy Brassica* add, "Maximum amount of F9043 EC allowed per season", "Maximum amount of zeta-cypermethrin allowed per season" and "Maximum amount of bifenthrin allowed per season" to the restrictions section.
- n) Under *Cucurbits* add, "Maximum amount of F9043 EC allowed per season", "Maximum amount of zeta-cypermethrin allowed per season" and "Maximum amount of bifenthrin allowed per season" to the restrictions section.
- o) Under *Eggplant, Pepper (Bell & Non-Bell), and Pepino* add, "Maximum amount of F9043 EC allowed per season", "Maximum amount of zeta-cypermethrin allowed per season" and "Maximum amount of bifenthrin allowed per season" to the restrictions section.
- p) Under *Tomato* delete "(including groundcherry and tomatillos)". Also add "Maximum amount of F9043 EC allowed per season", "Maximum amount of zeta-cypermethrin allowed per season" and "Maximum amount of bifenthrin allowed per season" to the restrictions section.
- q) Under *Head Lettuce* add, "Maximum amount of F9043 EC allowed per season", "Maximum amount of zeta-cypermethrin allowed per season" and "Maximum amount of bifenthrin allowed per season" to the restrictions section.
- r) Under *Dried and Succulent and Beans and Peas* add, "Maximum amount of F9043 EC allowed per season", "Maximum amount of zeta-cypermethrin allowed per season" and "Maximum amount of bifenthrin allowed per season" to the restrictions section.
- s) Under *Root and Tuber vegetables* add, "Maximum amount of F9043 EC allowed per season", "Maximum amount of zeta-cypermethrin allowed per season" and "Maximum amount of bifenthrin allowed per season" to the restrictions section. Also add, "Apply foliar treatments in at least 25 gallons per acre" to the restrictions section.

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- t) Under *Turnip Greens* add, "Maximum amount of F9043 EC allowed per season", "Maximum amount of zeta-cypermethrin allowed per season" and "Maximum amount of bifenthrin allowed per season" to the restrictions section.
 - u) Under *Tree Nuts Group* add, "Maximum amount of F9043 EC allowed per season", "Maximum amount of zeta-cypermethrin allowed per season" and "Maximum amount of bifenthrin allowed per season" to the restrictions section.
- 3. You agree that the subject registrations are conditional under the same terms and conditions for data generation as stipulated in the Agency's November 15, 1993 and November 15, 2004 letters for use of these products on cotton.
 - 4. Generate and submit the results of an one year storage stability and corrosion characteristics study to the Agency on completion. It is recommended that the observations be made at 0, 3, 6, 9, and 12 months intervals.
 - 5. Please submit three (3) copies of your final printed labeling before releasing the product for shipment. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product bearing amended labeling constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records.

If you have any questions regarding this action, please contact BeWanda Alexander at www.alexander.bewanda@epa.gov or (703) 305-7460.

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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.

F9043 EC Insecticide

ACCEPTED
with COMMENTS
In EPA Letter Dated
JAN 14 2010

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

279-3380

EPA Reg. No. 279-XXXX

EPA Est. 279-

Active Ingredients:

By Wt.

Zeta-Cypermethrin*	8.20%
Bifenthrin**	9.80%
Other Ingredients***	82.00%
	100.0%

F9043 EC contains 1.5 pounds active ingredients per gallon.

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

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

*** Contains Petroleum Distillates

U.S. Patent No. Pending

KEEP OUT OF REACH OF CHILDREN

WARNING

See other panels for additional precautionary information.

FMC.

FMC Corporation
Agricultural Products Group
1735 Market Street
Philadelphia PA 19103

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NET CONTENTS:

FIRST AID	
IF SWALLOWED	Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give any liquid to the person. 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. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes. Call a poison control center for treatment advice.
IF ON SKIN OR CLOTHING	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
IF INHALED	Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth to mouth if possible. Call a poison control center or doctor for further treatment advice.
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.	

PRECAUTIONARY STATEMENTS

Hazards to Humans (and Domestic Animals)

Caution

May be fatal if swallowed. Harmful if inhaled or absorbed through the skin. Causes moderate eye irritation. Avoid contact with eyes or clothing. Avoid breathing vapor or spray mist. Do not get on skin, in eyes or on clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

Personal Protective Equipment:

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

Handlers who may be exposed to the dilute through application or other tasks must wear: Long-sleeved shirt and long pants, chemical-resistant gloves such as Barrier Laminate; or Butyl, Nitrile, or Neoprene Rubber ≥ 14 mls; or Viton ≥ 14 mls, and 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 Butyl, Nitrile, or Neoprene Rubber ≥ 14 mls; or Viton ≥ 14 mls, and shoes plus socks and protective eyewear.

User Safety Requirements

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

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

User Safety Recommendations

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

Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Environmental Hazards

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

The use of F9043 EC 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 if bees are visiting the treatment area.

Physical or Chemical Hazards

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

DIRECTIONS FOR USE

Restricted Use Pesticide

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

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

If resistance to this product develops in your area, this product, or other products with a similar mode of action, may not provide adequate control. If poor performance cannot be attributed to improper application or extreme weather conditions, a resistant strain of insect may be present. If you experience difficulty with control and resistance is a reasonable cause, immediately consult your local company representative or agricultural advisor for the best alternative method of control for your area.

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.

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, and shoes plus socks.

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.

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. 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 FMC: (800) 331-3148.

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 Disposal

Metal Containers: Non-refillable container. Do not reuse or refill this container. Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill or by other procedures approved by state and local authorities. Do not cut or weld metal containers.

Plastic Containers: Non-refillable container. Do not reuse or refill this container. Triple rinse (or equivalent). Then offer for recycling or reconditioning, 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.

Returnable/Refillable Sealed Containers: Do not rinse container. Do not empty remaining formulated product. Do not break seals. Return intact to point of purchase.

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.

F9043 EC Insecticide should be applied continuously for the duration of the water application. F9043 EC Insecticide should be diluted in sufficient volume to insure 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.

BUFFER ZONES

Vegetative Buffer Zones

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

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

For guidance, refer to the following publication for information on constructing and maintaining effective buffers: Conservation Buffers to Reduce Pesticide Losses. Natural Resources Conservation Services. USDA, NRCS. 2000. Fort Worth, Texas. 21pp. <http://www.in.nrcs.usda.gov/technical/agronomy/newconbuf.pdf>.

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

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

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

Spray Drift Requirements

Wind Direction and Speed

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

Temperature Inversion

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

Droplet Size

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

Additional Requirements for Ground Applications

Wind speed must be adjacent to the application site on the upwind side, immediately prior to application.

For ground boom applications, apply using a nozzle height of no more than 4 feet above the ground or crop canopy.

For airblast applications, turn off outward pointing nozzles at row ends and when spraying the outer two rows. To minimize spray loss over the top in orchard applications, spray must be directed into the canopy.

Additional Requirements for Aerial Applications

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

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

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

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

GENERAL INSTRUCTIONS

Use low rate under light to moderate infestation. Higher rates should be used under heavy insect pressure. The rate of application is variable according to insect pressure, timing of spray and field scouting.

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.

Preventive Use

For cutworm, armyworm grape colapsis, or stalk borer control, F9043 insecticide may be applied before, during, or after planting.

For soil-incorporated applications, use higher rates for improved control

Adjuvants

Adjuvants may be used with F9043. When selecting an adjuvant, select an adjuvant that meets or exceeds CPDA Adjuvant Certification is recommended for optimum performance. Refer to the individual crop recommendation sections of this label for specific adjuvant type and use rates.

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 F9043 EC Insecticide.

Tank-Mixture

F9043 EC Insecticide may be applied in tank mixtures with other products approved for use on the F9043 and tank mix partners' labels. Observe all restrictions and precautions that appear on the labels of these products. Test for compatibility of products before mixing.

F9043 EC Insecticide contains the pyrethroids zeta-cypermethrin and bifenthrin.

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

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

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Maximum Seasonal Total

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

Crop	Maximum Seasonal Total (lbs ai/acre)			
	Zeta-cypermethrin *			Cypermethrin**
	Mustang	Mustang Max	F9043	
Canola	0.3	0.15	0.07	0.6
Field Corn	0.2	0.10	0.10	NA
Sweet Corn	0.3	0.15	0.15	NA
Cotton	0.3	0.15	0.15	0.6
Peanut	0.3	0.15	0.15	NA
Potato	0.3	0.15	0.15	NA
Soybean	0.3	0.15	0.15	NA
Head and Stem Brassica	0.3	0.15	0.15	0.6
Leafy Brassica	0.3	0.15	0.15	0.6
Cucurbits	0.3	0.15	0.15	NA
Eggplant	0.3	0.15	0.15	NA
Pepper (Bell & Non-Bell)	0.3	0.15	0.15	NA
Tomato	0.3	0.15	0.15	NA
Head Lettuce	0.3	0.15	0.15	0.6
Succulent Peas and Beans	0.3	0.15	0.15	NA
Dry Peas and Bean	0.3	0.15	0.15	NA
Turnip Greens	0.3	0.15	0.15	0.6
Root and Tuber	0.3	0.15	0.15	0.6
Treenuts	0.3	0.15	0.15	NA

Mustang or Fury (1.5 EW or 1.5 EC); Mustang Max (0.8 EC or 0.8 EW); F9043; or any zeta-cypermethrin product approved for crop use.
 ** Any cypermethrin product approved for crop use. NA = Not Applicable.

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

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

Crop	Maximum Seasonal Total (lbs ai/acre)		
	Bifenthrin		When Applying Bifenthrin * Products Plus F9043 to the Same Crop
	F9043	Bifenthrin *	
Canola	0.08	0.08	0.08
Field Corn	0.12	0.30	0.30
Sweet Corn	0.18	0.20	0.20
Cotton	0.18	0.50	0.50
Peanut	0.18	0.50	0.50
Potato	0.18	0.50	0.50
Soybean	0.18	0.30	0.30
Head and Stem Brassica	0.18	0.50	0.50
Leafy Brassica	0.18	0.40	0.40
Cucurbits	0.18	0.30	0.30
Eggplant	0.18	0.20	0.20
Pepper (Bell & Non-Bell)	0.18	0.20	0.20
Tomato	0.18	0.32	0.32
Head Lettuce	0.18	0.50	0.50
Dry Peas and Beans	0.18	0.30	0.30
Succulent Peas and Beans	0.18	0.20	0.20
Root and Tuber	0.18	0.50 (foliar + soil app.)	0.50
Turnip Greens	0.18	0.40	0.40
Treenuts	0.18	0.50	0.50

* Any bifenthrin product approved for crop use.

Field Crops

Canola, Crambe and Rapeseed (PHI 35 days)

Pests Controlled	Rate of Application
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Cutworm spp. Flea beetle	2.5 – 3.5 fl oz/A (0.029 – 0.041 lb ai/A)
Aphid spp. Armyworm, fall* Armyworm, southern Armyworm, true Armyworm, yellowstriped Diamondback moth** Fleahopper Grasshopper Looper spp. Seedpod weevil Stinkbug spp.	3.5 – 4.7 fl oz/A (0.041 – 0.055lb ai/A)
Restrictions <ul style="list-style-type: none"> • PHI: Do not apply within 35 days of harvest. • Application Interval: Do not make applications less than 7 days apart. • Maximum Amount per Application: Do not apply more than 4.7 fl oz/A (0.055 lb ai/A) per application. • Maximum Amount per Season: Do not apply more than 12.8 fl oz/A (0.15 lb ai/A) per season. Remarks Apply as required by scouting. Timing and frequency of applications should be based upon 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 by ground and 2 gallons by air). *Coverage is essential for control of this pest. Under heavy outbreaks tank mixing with another product that is labeled for this pest is recommended for control. **Pyrethroid resistance is common for these pests. Please consult your local or state agricultural authority to determine if resistance pest populations are in your area. If so refer the the resistance management statement in the DIRECTION FOR USE section of this label.	

**Field Corn (Grain and Silage), Popcorn, Field Corn Grown for Seed.
(PHI 30 days for grain and stover and 60 days for forage)**

Pests Controlled	Rate of Application
Army cutworm Bean leaf beetle Common stalk borer Cutworm spp. Flea beetle spp. Green cloverworm Hop vine borer Western bean cutworm	2.5 -3.5 fl oz/A (0.029 – 0.041 lb ai/A)
Aphid spp. Armyworm, fall* Armyworm, southern Armyworm, true Armyworm, yellowstriped Cereal leaf beetle Chinch bug Corn blotch leafminer (adult) Corn earworm* Corn leaf hopper Corn rootworm (adult) Corn silk fly Cucumber beetle (adult) European corn borer False chinch bug Grasshopper spp. Greenbug Japanese beetle (adult) Leafhopper spp. Meadow spittlebug Sap beetle Southern corn leaf beetle Southwestern corn borer Stinkbug spp.	3.5 – 4.7 fl oz/A (0.041 – 0.055 lb ai/A)

Tobacco budworm** Webworm spp.	
Restrictions <ul style="list-style-type: none"> • PHI: Do not apply within 30 days of harvest for grain and stover and 60 days of harvest for forage. • Application Interval: Apply at a minimum 3 day intervals or as needed for control. • Maximum Amount per Application: Do not apply more than 4.7 fl oz/A (0.055 lb ai/A) per application. • Maximum Amount per Season: Do not apply more than 18.7 fl oz/A (0.22 lb ai/A) per season. • Grazing: Do not graze livestock in treated areas or cut treated crops for feed within 30 days of the last application. <p>Use of ultra low volume (ULV) application on corn is prohibited.</p> <p>Do not make aerial or ground applications to corn if heavy rainfall is imminent.</p> <p>Use of F9043 Insecticide is prohibited in all coastal counties.</p>	
Remarks <p>Apply in a minimum of 2-5 gallons of finished spray per acre by air or in a minimum of 10 gallons 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– 2 quarts of emulsified oil may be substituted for 1– 2 quarts of water in the finished spray. Thorough coverage is essential to achieve control.</p> <p>To control ear– attacking pests: Apply F9043 Insecticide when silking begins and repeat as necessary to maintain control.</p> <p>Southwestern Corn Borer, European Corn Borer: Make 2 applications for corn borer control with the first application at or shortly before egg hatch followed by the second application 7 – 10 days later.</p> <p>For control of other insect pests: Apply when pests first appear and repeat as necessary.</p> <p>Higher rates will be necessary for heavier initial populations and corn under heat or drought stress.</p> <p>*Coverage is essential for control of this pest. Under heavy outbreaks tank mixing with another product that is labeled for this pest is recommended for control.</p> <p>**Pyrethroid resistance is common for these pests. Please consult your local or state agricultural authority to determine if resistance pest populations are in your area. If so refer the resistance management statement in the DIRECTION FOR USE section of this label.</p>	

Sweet Corn (Grain and Silage), Sweet Corn Grown for Seed (PHI 3 days)

Pests Controlled	Rate of Application
Aphid spp. Army cutworm Armyworm, fall* Armyworm, southern Armyworm, true Armyworm, yellowstriped Cereal leaf beetle Chinch bug Common stalk borer Corn blotch leafminer (adult) Corn earworm* Corn rootworm (adult) Corn silk fly Cucumber beetle (adult) Cutworm spp. European corn borer False chinch bug	3.5 – 4.7 fl oz/A (0.041 – 0.055 lb ai/A)

Flea beetle Grasshopper spp. Greenbug Japanese beetle (adult) Leafhopper spp. Sap beetle Southern corn leaf beetle Southwestern corn borer Stinkbug spp. Webworm spp. Western bean cutworm	
<p>Restrictions</p> <ul style="list-style-type: none"> • PHI: Do not apply within 3 days of harvest. • Application Interval: Apply at a minimum 3 to 5 day intervals or as needed for control. • Maximum Amount per Application: Do not apply more than 4.7 fl oz/A (0.055 lb ai/A) per application. • Maximum Amount per Season: Do not apply more than 28.1 fl oz/A (0.33 lb ai/A) per season. • Grazing: Do not graze livestock in treated areas or cut treated crops for feed within 3 days of the last application. <p>Use of ultra low volume (ULV) application on corn is prohibited.</p> <p>Do not make aerial or ground applications to corn if heavy rainfall is imminent.</p> <p>Use of F9043 Insecticide is prohibited in all coastal counties.</p> <p>Remarks</p> <p>General: Apply in a minimum of 2 gallons of finished spray per acre by air or in a minimum of 20 gallons per acre with ground equipment. When applying by air, 1– 2 quarts of emulsified oil may be substituted for 1– 2 quarts of water in the finished spray. Thorough coverage is essential to achieve control.</p> <p>To control ear- attacking pests: Apply F9043 when silking begins and repeat as necessary to maintain control. Direct applications at corn ears for optimum control.</p> <p>Southwestern Corn Borer, European Corn Borer: Make 2 applications for corn borer control with the first application at or shortly before egg hatch followed by the second application 7 – 10 days later.</p> <p>For control of other insect pests: Apply when pests first appear and repeat as necessary.</p> <p>Higher rates will be necessary for heavier initial populations and corn under heat or drought stress.</p> <p>*Coverage is essential for control of this pest. Under heavy outbreaks tank mixing with another product that is labeled for this pest is recommended for control.</p>	

Cotton (PHI 14 days)

Pest Controlled	Rate of Application
Cutworm spp. Soybean (banded) thrips Tobacco thrips	2.5 -3.5 fl oz/A (0.029 – 0.041 lb ai/A)
Armyworm, fall* Armyworm, yellowstriped Boll weevil Bollworm Cabbage looper Cotton aphid** Cotton fleahopper Cotton leafperforator European corn borer Grasshopper spp. Saltmarsh caterpillar	3.5 – 4.7 fl oz/A (0.041 – 0.055 lb ai/A)

Southern garden leafhopper Stinkbug spp. Tobacco budworm***	
Restrictions <ul style="list-style-type: none"> • PHI: Do not apply within 14 days of harvest. • Maximum Amount per Application: Do not apply more than 4.7 fl oz/A (0.055 lb ai/A) per application. • Maximum Amount per Season: Do not apply more than 28.1 fl oz/A (0.33 lb ai/A) per season. • Grazing: Do not graze livestock in treated areas or cut treated crops for feed. Remarks F9043 Insecticide may be applied in water or refined vegetable oil (soybean/cottonseed). Application in Water: Apply in a minimum of 5 gallons per acre with ground equipment or 1 gallon per acre by aircraft. When applying by air, 1 quart of emulsified oil may be substituted for one quart of water in the finished spray. ULV Application: Apply the recommended rate of F9043 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 F9043 Insecticide at an interval of 3 to 4 days until pest numbers are reduced to acceptable levels. To Control Aphids: Apply when pests first appear. Repeat as necessary to maintain control. *Coverage is essential for control of this pest. Under heavy outbreaks tank mixing with another product that is labeled for this pest is recommended for control. ***Pyrethroid resistance is common for these pests. Please consult your local or state agricultural authority to determine if resistance pest populations are in your area. If so refer the resistance management statement in the DIRECTION FOR USE section of this label.	

Peanut (PHI 14 days)

Pests Controlled	Rate of Application
Aphid spp. Armyworm, fall* Armyworm, southern Armyworm, true Armyworm, yellowstriped Bean leaf beetle Corn earworm Cutworm spp. Grasshopper spp. Green cloverworm Leafhopper spp. Lesser cornstalk borer Looper spp. Red-necked peanut worm Southern corn rootworm (adult) Stinkbug spp Threecornered alfalfa hopper Vegetable weevil Velvetbean caterpillar Whitefringed beetle (adult)	3.5 – 4.7 fl oz/A (0.041 – 0.055 lb ai/A)
Restrictions <ul style="list-style-type: none"> • 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 4.7 fl oz/A (0.055 lb ai/A) per application. • Maximum Amount per Season: Do not apply more than 28.1 fl oz/A (0.33 lb ai/A) per season. Restricted to 6 foliar applications per season 	

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Remarks

Apply as required by scouting. Timing and frequency of applications should be based upon 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 by ground and 2 gallons by air).

Follow appropriate spray drift precautions on this label.

*Coverage is essential for control of this pest. Under heavy outbreaks tank mixing with another product that is labeled for this pest is recommended for control.

Potato (PHI 21 days)

Pests Controlled	Rate of Application
Cutworm spp. Flea beetle spp.	2.5 -3.5 fl oz/A (0.041 – 0.029 lb ai/A)
Aphid spp. Armyworm, fall* Armyworm, southern Armyworm, true Armyworm, yellowstriped Banded cucumber beetle Chinch bug Colorado potato beetle* Cucumber beetle (adult) European cornborer False chinch bug Grasshopper spp. Looper spp. Potato leafhopper Sugarcane beetle Sweetpotato flea beetle Sweetpotato weevil (adult) Potato tuberworm**	3.5 – 4.7 fl oz/A (0.041 – 0.055 lb ai/A)

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 4.7 fl oz/A (0.055 lb ai/A) per application.
- **Maximum Amount per Season:** Do not apply more than 28.1 fl oz/A (0.33 lb ai/A) per season. Restricted to 2 foliar applications per season
- Leaves cannot be used for food or feed.

Remarks

Apply as required by scouting. Timing and frequency of applications should be based upon 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 by ground and 3 gallons by air).

Follow appropriate spray drift precautions on this label.

*Coverage is essential for control of this pest. Under heavy outbreaks tank mixing with another product that is labeled for this pest is recommended for control.

** For Tuberworm control (adults and larvae) apply prior to harvest or senesce when economic thresholds are met. Only tuberworms that have not bored or tunneled into the plant can be controlled with a foliar application of F9043.

Soybeans (PHI 21 days)

Pest Controlled	Rate of Application
Cutworm spp. Flea beetle spp. Green cloverworm Painted lady (thistle) caterpillar Silerspotted skipper	2.5 -3.5 fl oz/A (0.029 – 0.041 lb ai/A)

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Alfalfa caterpillar Armyworm, fall* Armyworm, southern Armyworm, true Armyworm, yellowstriped Bean leaf beetle Blister beetle spp. Corn earworm Corn rootworm (adult) Cowpea curculio Cucumber beetle (adult) Dectes stem borer (adult)** European corn borer False chinch bug Grape colaspis (adult) Grasshopper spp. Hornworm spp. Imported cabbageworm Japanese beetle (adult) Leaf skeletonizer spp. Leafhopper spp. Leafminer spp.(adult) Lesser cornstalk borer Looper spp. Mexican bean beetle Pea leaf weevil Saltmarsh caterpillar Seedcorn maggot (adult) Soybean aphid Spittlebug Stinkbug spp. Threecornered alfalfa hopper Thrips Tobacco budworm** Velvetbean caterpillar Webworm	3.5 – 4.7 fl oz/A (0.041 – 0.055 lb ai/A)
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Restrictions

- **PHI:** Do not apply within 21 days of harvest.
- **Application Interval:** Do not make applications less than 30 days apart.
- **Maximum Amount per Application:** Do not apply more than 4.7 fl oz/A (0.055 lb ai/A) per application.
- **Maximum Amount per Season:** Do not apply more than 28.1 fl oz/A (0.33 lb ai/A) per season.
- **Grazing:** Do not graze or harvest treated soybean forage, straw or hay for livestock feed.

Remarks

Apply as required by scouting. Timing and frequency of applications should be based upon 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 by ground and 2 gallons by air).

Follow appropriate spray drift precautions on this label.

*Coverage is essential for control of this pest. Under heavy outbreak conditions, tank mixing with another product that is labeled for this pest is recommended for control.

** For optimum control apply F9043 10 days after adult emergence. Follow 10-14 days later with an application of a product containing zeta-cypermethrin as the sole active ingredient, such as Mustang Max Insecticide, applied at the single maximum application rate under the soybean use directions for that product.

followed by a second application of Mustang Max at 4 oz/acre 10-14 days later.

***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.

Vegetable and Small Fruit Crops

Brassica Vegetables

Head & Stem Brassica (PHI 7 days)

Including: Broccoli; broccoli, Chinese; Brussels sprouts; cabbage; cabbage, Chinese (napa); cabbage, Chinese mustard; cauliflower; cavalo broccolo; kohlrabi

Pest Controlled	Rate of Application
Aphid spp.* Armyworm, fall** Armyworm, southern Armyworm, true Armyworm, yellowstriped Click beetle (wireworm adult) Corn earworm Crickets Cucumber beetle Cutworm spp. Diamondback moth** Flea beetle spp. Grasshopper spp. Imported cabbageworm Leafhopper spp. (adult) Leafminer spp. Looper spp. Saltmarsh caterpillar Southern cabbageworm Stinkbug spp. Tobacco budworm***	3.5 – 4.7 fl oz/A (0.041 – 0.055 lb ai/A)
Restrictions <ul style="list-style-type: none"> • 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 4.7 fl oz/A (0.055 lb ai/A) per application. • Maximum Amount per Season: Do not apply more than 28.1 fl oz/A (0.33 lb ai/A) per season. Do not make more than 5 applications after bloom. Remarks <p>Apply in a minimum of 5 gallons of finished spray per acre by air or in a minimum of 15 gallons per acre with ground equipment. When applying by air, 1– 2 quarts of emulsified oil may be substituted for 1– 2 quarts of water in the finished spray.</p> <p>Thorough coverage is essential to achieve control.</p> <p>*Coverage is essential for control of this pest. Under heavy outbreaks tank mixing with another product that is labeled for this pest is recommended for control.</p> <p>**Coverage is essential for control of this pest. Under heavy outbreaks tank mixing with another product which is labeled for this pest is recommended for control.</p> <p>***Pyrethroid resistance is common for this pest. Please consult your local or state agricultural authority to determine if resistance pest populations are in your area. If so refer the resistance management statement in the DIRECTION FOR USE section of this label.</p>	

Leafy Brassica (PHI 7 days)

Including: Broccoli raab; cabbage, Chinese (bok choy); collards; kale;

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mizuna; mustard greens; mustard spinach; rape greens

Pest Controlled	Rate of Application
Aphid spp.* Armyworm, fall** Armyworm, southern Armyworm, true Armyworm, yellowstriped Cabbageworm Click beetle (wireworm adult) Corn earworm Crickets Cucumber beetle (adult) Cutworm spp. Diamondback moth*** Flea beetle spp. Grasshopper spp. Imported cabbageworm Japanese beetle (adult) Leafhopper spp. Leafminer (adult) Looper spp. Saltmarsh caterpillar Stinkbug spp. Onion thrips Tobacco budworm*** Wireworm (adult)	3.5 – 4.7 fl oz/A (0.041 – 0.055 lb ai/A)
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 4.7 fl oz/A (0.055 lb ai/A) per application. • Maximum Amount per Season: Do not apply more than 28.1 fl oz/A (0.33 lb ai/A) per season. Remarks Apply as required by scouting. Timing and frequency of applications should be based upon 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 by ground and 5 gallons by air). Follow appropriate spray drift precautions on this label. *Coverage is essential for control of this pest. Under heavy outbreaks tank mixing with another product which is labeled for this pest is recommended for control. **Coverage is essential for control of this pest. Under heavy outbreaks tank mixing with another product that is labeled for this pest is recommended for control. ***Pyrethroid resistance is common for this pest. Please consult your local or state agricultural authority to determine if resistance pest populations are in your area. If so refer the resistance management statement in the DIRECTION FOR USE section of this label.	

Cucurbits (PHI 3 days)

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

Pests	Rates of Application
Aphid spp. * Armyworm, fall** Armyworm, southern Armyworm, true Armyworm, yellowstriped Cabbage looper Corn earworm Corn rootworm (adult) Cucumber beetle spp. (adult) Cutworm spp. Grasshopper Leafhopper spp.	3.5 – 4.7 fl oz/A (0.041 – 0.055 lb ai/A)

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Melonworm Pickleworm Rindworm Squash bug Squash vine borer Stink bug spp. Tobacco budworm***	
Restrictions <ul style="list-style-type: none"> • 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 4.7 fl oz/A (0.055 lb ai/A) per application. Do not make more than two applications after bloom. • Maximum Amount per Season: Do not apply more than 28.1 fl oz/A (0.33 lb ai/A) per season. Remarks Apply in a minimum of 5 gallons of finished spray per acre by air or in a minimum of 20 gallons per acre with ground equipment. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control. *Coverage is essential for control of this pest. Under heavy outbreaks tank mixing with another product which is labeled for this pest is recommended for control. **Coverage is essential for control of this pest. Under heavy outbreaks tank mixing with another product that is labeled for this pest is recommended for control. ***Pyrethroid resistance is common for this pest. Please consult your local or state agricultural authority to determine if resistance pest populations are in your area. If so refer the resistance management statement in the DIRECTION FOR USE section of this label.	

Fruiting Vegetables

Eggplant, Pepper (Bell & Non-Bell), and Pepino (PHI 7 days)

Pests Controlled	Rate of Application
Aphid spp.* Armyworm, fall** Armyworm, southern Armyworm, true Armyworm, yellowstriped Cabbage looper Celery leaf tier Colorado potato beetle*** Corn earworm Cucumber beetle Cutworm spp. European corn borer Flea beetle spp. Garden webworm Grasshopper spp. Hornworm spp. Leafhopper spp. Meadow spittlebug Pepper maggot (adult) Pepper weevil Southwestern corn borer Stinkbug spp. Tobacco budworm*** Tomato fruitworm Vegetable leafminer (adult)	3.5 – 4.7 fl oz/A (0.041 – 0.055 lb ai/A)
Restrictions <ul style="list-style-type: none"> • PHI: Do not apply within 7 days of harvest. • Application Interval: Do not make applications less than 7 days apart. 	

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• **Maximum Amount per Application:** Do not apply more than 4.7 fl oz/A (0.055 lb ai/A) per application.

• **Maximum Amount per Season:** Do not apply more than 28.1 fl oz/A (0.33 lb ai/A) per season.

Remarks

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

Thorough coverage is essential to achieve control.

*Coverage is essential for control of this pest. Under heavy outbreaks tank mixing with another product which is labeled for this pest is recommended for control.

**Coverage is essential for control of this pest. Under heavy outbreaks tank mixing with another product that is labeled for this pest is recommended for control.

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

Tomato (Including Groundcherry and Tomatillos) (PHI 1 day)

Pest Controlled	Rate of Application
Aphid spp.* Armyworm, fall** Armyworm, southern Armyworm, true Armyworm, yellowstriped Cabbage looper Celery leaf tier Colorado potato beetle*** Corn earworm Cucumber beetle Cutworm spp. European corn borer Flea beetle spp. Garden webworm Grasshopper spp. Hornworm spp. Leafhopper spp. Meadow spittlebug Southwestern corn borer Stinkbug spp. Tobacco budworm*** Tomato fruitworm Vegetable leafminer (adult)	3.5 – 4.7 fl oz/A (0.041 – 0.055 lb ai/A)

Restrictions

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

• **Application Interval:** Do not make applications less than 10 days apart.

• **Maximum Amount per Application:** Do not apply more than 4.7 fl oz/A (0.055 lb ai/A) per application.

• **Maximum Amount per Season:** Do not apply more than 28.1 fl oz/A (0.33 lb ai/A) per season. Do not make more than four applications per season.

Remarks

Apply in water as necessary for insect control using a minimum of 10 gallons of finished spray per acre with ground equipment and 5 gallons per acre by air.

Thorough coverage is essential to achieve control.

*Coverage is essential for control of this pest. Under heavy outbreaks tank mixing with another product which is labeled for this pest is recommended for control.

**Coverage is essential for control of this pest. Under heavy outbreaks tank mixing with another product that is labeled for this pest is recommended for control.

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****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 Vegetables

Head Lettuce (PHI 7 days)

Pests Controlled	Rate of Application
Aphid spp.* Armyworm, fall** Armyworm, southern Armyworm, true Armyworm, yellowstriped Chinch bug Corn earworm Crickets Cucumber beetle Cutworm spp. Diamondback moth*** False chinch bug Flea beetle spp. Imported cabbageworm Leafhopper spp. Leafminer (adults) Looper spp. Saltmarsh caterpillar Stinkbug spp. Tobacco budworm***	3.5 – 4.7 fl oz/A (0.041 – 0.055 lb ai/A)
Restrictions <ul style="list-style-type: none"> • 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 4.7 fl oz/A (0.055 lb ai/A) per application. • Maximum Amount per Season: Do not apply more than 28.1 fl oz/A (0.33 lb ai/A) per season. 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 per acre by air. When applying by air, 1– 2 quarts of emulsified oil may be substituted for 1– 2 quarts of water in the finished spray. Thorough coverage is essential to achieve control. *Coverage is essential for control of this pest. Under heavy outbreaks tank mixing with another product which is labeled for this pest is recommended for control **Coverage is essential for control of this pest. Under heavy outbreaks tank mixing with another product that is labeled for this pest is recommended for control. ***Pyrethroid resistance is common for this pest. Please consult your local or state agricultural authority to determine if resistance pest populations are in your area. If so refer the resistance management statement in the DIRECTION FOR USE section of this label.	

Legume Vegetables

Dried and Succulent and Beans and Peas (except Soybeans) (PHI 3 days for succulent shelled or edible podded peas or bean and 21 days for dried shelled peas or beans)

Succulent Edible-Podded Peas, Succulent Shelled Peas and Dried Shelled Peas (*Pisum* spp.) including: Dwarf Pea; Edible-pod Pea; Snow Pea; Sugar Snap Pea; Pigeon pea; English Pea; Garden Pea; Green Pea; Lentil.
 Succulent Edible-Podded Beans, Succulent Shelled Beans, and Dried Shelled Beans including: Runner Bean; Snap Bean; Wax Bean; Asparagus Bean; Chinese Longbean; Moth Bean; Yardlong Bean; Jackbean; Soybean (immature seed); Swordbean; Lima Bean; Broad Bean (Fava Bean); Blackeyed Pea; Southern Pea; Grain Lupin; Sweet Lupin; White Lupin; White Sweet Lupin; Field Bean; Kidney Bean; Navy Bean; Pinto Bean; Tepary Bean; Adzuki Bean; Calijang; Cowpea; Crowder Pea; Moth Bean; Mung Bean; Rice Bean; Urd Bean; Chickpea (Garbanzo Bean); Guar; Lablab bean.

Pest Controlled	Rate of Application
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Alfalfa caterpillar Aphid spp.* Armyworm, fall* Armyworm, southern Armyworm, true Armyworm, yellowstriped Bean leaf beetle Blister beetle spp. Chinch bug Corn earworm Corn rootworm (adult) Cowpea curculio Cucumber beetle (adult) Cutworm spp. Dectes stem borer (adult) European corn borer False chinch bug Flea beetle spp. Grasshopper spp. Green cloverworm Hornworm spp. Imported cabbageworm Japanese beetle (adult) Leaf skeletonizer spp. Leafhopper spp. Leafminer spp.(adult) Lesser cornstalk borer Looper spp. Mexican bean beetle Painted lady (thistle) caterpillar Pea leaf weevil Pea seed weevil Saltmarsh caterpillar Sap beetle Seedcorn maggot (adult) Silverspotted skipper Southwest corn borer Spittlebug Stinkbug spp. Threecornered alfalfa hopper Thrips spp. Tobacco budworm** Velvetbean caterpillar Webworm spp. Western bean cutworm	3.5 – 4.7 fl oz/A (0.041 – 0.055 lb ai/A)
Restrictions • PHI: Do not apply within 3 days of harvest for succulent shelled or edible—podded peas or beans Do not apply within 21 days of harvest for dried shelled peas or beans • Application Interval: Do not make applications less than 5 days apart. • Maximum Amount per Application: Do not apply more than 4.7 fl oz/A (0.055 lb ai/A) per application. • Maximum Amount per Season: Do not apply more than 28.1 fl oz/A (0.33 lb ai/A) per season.	
Remarks Apply in a minimum of 2 gallons of finished spray per acre by air or in a minimum of 10 gallons per acre with ground equipment. When applying by air, 1– 2 quarts of emulsified oil may be substituted for 1– 2 quarts of water in the finished spray. Thorough coverage is essential to achieve control. *Coverage is essential for control of this pest. Under heavy outbreaks tank mixing with another product that is labeled for this pest is recommended for control. **Pyrethroid resistance is common for this pest. Please consult your local or state agricultural authority to determine if resistance pest populations are in your area. If so refer the resistance management statement in the DIRECTION FOR USE section of this label.	

Root and Tuber vegetables (except Sugarbeets) (PHI 21 days)

Arracacha; arrowroot; artichoke, Chinese; artichoke, Jerusalem; beet, garden; beet, sugar; burdock, edible; canna, edible; carrot; cassava, bitter and sweet; celeriac; chayote (root); chervil, turnip-rooted; chicory; chufa; dasheen (taro); ginger; ginseng; horseradish; leren; parsley, turnip-rooted; parsnip; radish; radish, oriental; rutabaga; salsify; salsify, black; salsify, Spanish; skirret; sweet potato; tanier; turmeric; turnip; yam bean; yam, true. See Potato section for potato use directions

Pest Controlled	Rate of Application
Cutworm spp. Flea beetle spp. Grasshopper spp.	2.5 -3.5 fl oz/A (0.041 – 0.029 lb ai/A)
Aphid spp.* Armyworm, fall** Armyworm, southern Armyworm, true Armyworm, yellowstriped Banded cucumber beetle Chinch bug Click beetle (adults) Colorado potato beetle*** Cucumber beetle (adult) European cornborer False chinch bug Grasshopper spp. Japanese beetle June beetle Looper spp. Potato leafhopper Sugarcane beetle Sweetpotato flea beetle Sweetpotato weevil (adult) White fringe beetle Rootworm spp. (adults)	3.5 – 4.7 fl oz/A (0.041 – 0.055 lb ai/A)
Restrictions <ul style="list-style-type: none"> • 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 4.7 fl oz/A (0.055 lb ai/A) per application. • Maximum Amount per Season: Do not apply more than 28.1 fl oz/A (0.33 lb ai/A) per season. Restricted to 2 foliar applications per season. <p>Leaves of Root and Tuber Vegetables cannot be used for food or feed.</p> Remarks <p>Apply as required by scouting. Timing and frequency of applications should be based upon insect populations reaching locally determined economic threshold levels.</p> <p>Apply by ground or air equipment using sufficient water to obtain full coverage of foliage (minimum of 10 gallons by ground and 2 gallons by air).</p> <p>Follow appropriate spray drift precautions on this label.</p> <p>*Coverage is essential for control of this pest. Under heavy outbreaks tank mixing with another product which is labeled for this pest is recommended for control</p> <p>**Coverage is essential for control of this pest. Under heavy outbreaks tank mixing with another product that is labeled for this pest is recommended for control.</p> <p>***Pyrethroid resistance is common for this pest. Please consult your local or state agricultural authority to determine if resistance pest populations are in your area. If so refer the resistance management statement in the DIRECTION FOR USE section of this label.</p>	

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Turnip Greens (PHI 7 days)

Pests Controlled	Rate of Application
Aphid spp.* Armyworm, fall* Armyworm, southern Armyworm, true Armyworm, yellowstriped Cabbageworm Cucumber beetle (adult) Diamondback moth*** Flea beetle spp. Grasshopper spp. Harlequin bug Imported cabbageworm Japanese beetle (adult) Leafhopper spp. Looper spp. Stinkbug spp. Tobacco budworm*** Vegetable weevil	3.5 – 4.7 fl oz/A (0.041 – 0.055 lb ai/A)

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 4.7 fl oz/A (0.055 lb ai/A) per application.
- **Maximum Amount per Season:** Do not apply more than 28.1 fl oz/A (0.33 lb ai/A) per season.

Remarks

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

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).

Follow appropriate spray drift precautions on this label.

*Coverage is essential for control of this pest. Under heavy outbreaks tank mixing with another product that is labeled for this pest is recommended for control.

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

Tree Nuts Group (PHI 7 days except Pecan 21 days)

(7 Day PHI) including: almond; beech nut; Brazil nut; butternut; cashew; chestnut; chinquapin; filbert (hazelnut); hickory nut; macadamia nut; and walnut (black and English). (21 Day PHI) Pecan

Pest	Rate of Application
Black pecan aphid* Codling moth Filbert worm Hickory shuckworm Leaffooted bug Pecan weevil Plant bug spp. Navel orange worm Oblique-banded leafroller Peach twig borer Pecan leaf casebearer Pecan nut casebearer Pecan phylloxera Stinkbug spp. Walnut aphid Yellow pecan aphid*	3.5 – 4.7 fl oz/A (0.041 – 0.055 lb ai/A)

Restrictions

- **PHI:** Do not apply within 7 days of harvest for all crops except for pecan. Do not apply within 21 days of harvest for pecans.
- **Application Interval:** Do not make applications less than 15 days apart.

- **Maximum Amount per Application:** Do not apply more than 4.7 fl oz/A (0.055 lb ai/A) per application.
- **Maximum Amount per Season:** Do not apply more than 28.1 fl oz/A (0.33 lb ai/A) per season.
- **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.

*Coverage is essential for control of this pest. Under heavy outbreaks tank mixing with another product that is labeled for this pest is recommended for control.

Dealers Must Sell in Original Packages Only.

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