

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

October 30, 2013

Mr. Timothy M Formella FMC Corporation 1735 Market Street Philadelphia, PA 19103

Subject:

Notification – Revise the Ingredient Statement

F9043 EC Insecticide

EPA Registration Number: 279-3380 Date of Submission: September 26, 2013

Dear Mr. Formella:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration (PRN)98-10 dated September 26, 2013, for the above mentioned product. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the actions requested fall within the scope of PRN 98-10. The label submitted with the application has been stamped "Notification" and will be placed in our records.

If you have any questions regarding this letter, please contact BeWanda Alexander at (703) 305-7460 or e-mail <u>alexander.bewanda@epa.gov</u>.

Sincerely,

DECLANDA UNIANDER JOS Richard Gebken

Product Manager Team 10

Insecticide Branch

Registration Division (7505P)

		•	d		2
Please read instructions on reverse be			Form Approv	JMB No. 2070	-0060, Approval expires 05-31-98
SEPA EF	United States		☐ Regist	ration	OPP Identifier Numbe
EFA Er	vironmental Protection	•		dment	
	Washington, DC 2046	50	☐ Other:		
	Applicatio	n for Pesti	cide - Sectio	n l	
1. Company/Product Number 279-3380		2. EPA Prod Richard Geb			3. Proposed Classification
Company/Product (Name) F9043 EC Insecticide		PM# 10	,		None Restricted
5. Name and Address of Applicant	(Include ZIP Code)	6. Expedit	ed Review. II	n accordance v	vith FIFRA Section 3(c)(3)
FMC Corporation 1735 Market Street	•	1	product is simil	ar or identical	in composition and labeling
Philadelphia, PA 19103		to: EPA Reg. No) <u>.</u> .		
		g	*		
Check if this is a new	address	Product Nam	e		
		Section -	· []		
Amendment – Explain below.			Final printed la	bels in response to	o Agency letter dated
Resubmission in response to	Agency letter dated	"Me Too" Application			
Notification - Explain below.			Other - Explain below or Section I and Section II.)		
98-10 and EPA regulations at 40 Formula for this product. I under understand that if this notification of FIFRA and I may be subject to	rstand that it is a violation of n is not consistent with the te	18 U.S.C. Sec erms of PR No	c 1001 to willfull tice 98-10 and 4	y make any false 10 CFR 152.46,	e statement to EPA. I further
		Section -	III	 	
Material This Product Will Be F	ackaged In:				
Child-Resistant Packaging	Unit Packaging	· V	Vater Soluble Pac	kaging	Type of Container
Yes*	│		Yes No	1	Metal Plastic
L NO ,		No. per	No f "Yes"	No. per	Glass
*Certification must			Package wgt.	container	Paper
be submitted				1	Other
3. Location of Net Contents Inforr	nation 4. Size(s) Re	etail Container	· · · · · · · · · · · · · · · · · · ·	5. Location of	of Label Directions
Label Co	ontainer			On Label	el ing accompanying product
6. Manner in Which Label is Affixe	= *		Other _		
	☐ Paper gl ☐ Stencile				
		Section -	IV		
1. Contact Point (Complete items	directly below for identification of	of individual to b	e contacted, if ne	cessary, to proces	s this applicໍaີເເບົາກໍ)ຸ
Name	Title				Telephone No. (Include Area
Timothy M. Formella	S	enior Produc	t Registration	Manager	Code) (

Certification

1 certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or botting or the law.

5. Date

Timothy M. Formella

EPA Form 8570-1 (Rev. 8-94) Previous editions are obsolete

under applicable law.

2. Signature,

White- EPA File Copy (original) Yellow- Applicant Copy

Senior Product Registration Manages

Sept. 26, 2013

6. Date Application Received



FMC Corporation 1735 Market Street Philadelphia, PA 19103 USA

215.299.6000 fmc.com

September 26, 2013

BeWanda Alexander
United States Environmental Protection Agency
Document Processing Desk (NOTIF)
Office of Pesticide Programs (7505P)
Room S-4900, One Potomac Yard
2777 South Crystal Drive
Arlington, VA 22202

Subject:

Notification Regarding PR Notice 97-5

F9043 EC Insecticide

EPA Reg. No. 279-3380

Dear Ms. Alexander:

FMC Corporation herein submits notification of our intent to amend the registration of F9043 EC Insecticide (EPA Reg. No. 279-3380) containing the active ingredients zeta-cypermethrin and bifenthrin order to revise the ingredients statement on the label so as to list the chemical name of the zeta-cypermethrin active ingredient along with the common name.

This label notification follows the Agency guidance for use of common and chemical names for active ingredients as detailed in Pesticide Registration Notice 97-5. The common name for the active ingredient in these products, "zeta-cypermethrin", is approved by the American National Standards Institute (ANSI). The chemical name to be added represents the cypermethrin isomers registered by EPA as the active ingredient for the zeta-cypermethrin technical product used to formulate this end-use product. This is the only change being made to the product label at this time.

Enclosed please find the following materials to support this registration notification:

- 1. completed Application for Pesticide Registration (EPA Form 8570-1);
- 2. a "red-lined" copy of the amended label showing the addition of the chemical name of the active ingredient;
- 3. a clean copy version of the revised label;
- 4. a CD with the label in electronic format (file name: 000279-03380.20130926.pdf);
- 5. completed Certification with Respect to Label Integrity form.

If you have any questions concerning this submission, please contact me at (215) 299-6717 or email at $\underline{tim.formella@fmc.com}$.

Sincerely.

Timothy M. Formella

Senior Product Registration Manager

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

NOTIFICATION

EPA Reg. No. 279-3380

EPA Est. 279-

OCT 3 0 2013

Active Ingredients:

By Wt.

Zeta-Cypermethrin

S-Cyano (3-phenoxyphenyl)methyl

(+) cis/trans 3-(2,2-dichloroethenyl)

-2,2 dimethylcyclopropane

carboxylate*.....8.20%

100.0%

F9043 EC Insecticide contains 1.5 pounds active ingredients per gallon.

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

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

*** Contains Petroleum Distillates

U.S. Patent No. Pending

KEEP OUT OF REACH OF CHILDREN

WARNING AVISO

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

See other panels for additional precautionary information.



FMC Corporation Agricultural Products Group 1735 Market Street Philadelphia PA 19103

NET CONTENTS:

Rev: September 26, 2013

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 petroleur pneumonia.	n distillates. Vomiting may cause aspiration	
HOTLINE NUM	MBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact		

PRECAUTIONARY STATEMENTS

1-(800)-331-3148 for Emergency Assistance.

Hazards to Humans (and Domestic Animals)

Warning

May be fatal if swallowed. Harmful if inhaled or absorbed through the skin. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Avoid breathing spray mist. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or before using the toilet. 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, chergical-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: Longsleeved shirt and long pants, chemical-resistant gloves such as Barrier Laminate; or Butyl, Nitrile, or Neoprene Rubber ≥ 14 mls; or 'Viton' 5 14 mls, and shoes plus socks and protective eyewear.

User Safety Requirements

Followmanufacturer'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.

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

User Safety Recommendations

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

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

Engineering Control Statements

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides (540CFR 170.240(d)(4-6), the handler PPE requirements may be reduced or modified as specified in the WPS.

Environmental Hazards

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

The use of F9043 EC Insecticide is prohibited in areas where its application may result in exposure to endangered species. Prior to use in a particular county contact the local extension service for procedures and precautions to use to protect endangered species

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops 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 conforms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, o condecontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the equipment 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 Rainier Laminate or Viton, and shoes plus socks.

STORAGE AND DISPOSAL

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

Pesticide Storage

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

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

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

Pesticide Disposal

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

Container Handling

Nonrefillable Container.

Do not reuse or refill this container.

Triple rinse container (or equivalent) promptly after emptying.

Triple rinse as follows:

For containers equal to 5 gallons or less: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

For containers greater than 5 gallons: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

Then offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Refillable/Returnable Container.

Refill this container with pesticide only. Do not reuse this container for any other purpose.

Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump finsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

Then offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or incineration, or, if a jowed by state and local authorities, by burning. If burned, stay out of smoke.

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

For guidance, refer to the following publication for information on constructing and maintaining effective buffers: Conservation Buffers to Reduce Pesticide Losses. Natural Resources Conservation Services. USDA, 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** 0000

Use only Medium or coarser spray nozzles (for ground and non-ULV aerial application) according to ASAE (S572) definition for o 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 croß caffepy. 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. 60 00 000000 e e

Additional Requirements for Aerial Applications

The spray boom should be mounted on the aircraft as to minimize drift caused by wingtip or rotor votices. The minimum practical boom length should be used and must not exceed 75% of the wing span or 80% rotor diameter. C 000000 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 o displacement at the downwind edge of the application area by adjusting the path of the aircraft upwind.

Rev: September 26, 2013

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 colaspsis, or stalk borer control, F9043 EC 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 EC Insecticide. 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 EC Insecticide 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.

Maximum Seasonal Total

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

0	Maximum Seasonal Total (Ibs ai/acre)		Maximum Seasonal Total (Ibs ai/acre) When Applying Cypermethrin and Zeta- cypermethrin Products to the Same Crop	Maximum Seasonal Total (Ibs ai/acre) When Applying Zeta-cypermethrin Products to the Same Crop		
Crop	Zet	a-cypermethri	n *	Cypermethrin**		
	Mustang	Mustang Max	F9043		· Zeta-cypermethrin* plus Cypermethrin **	Zeta-cypermethrin*
Canola	0.3	0.15	0.07	NA	NA NA	0.3
Field Corn	0.2	0.10	0.10	NA NA	NA NA	0.2
Sweet Corn	0.3	0.15	0.15	NA	· NA	0.3
Cotton	0.3	0.15	0.15	0.6	0.6	0.3
Peanut	0.3	0.15	0.15	NA	NA NA	0.3
Potato	0.3	0.15	0.15	_ NA	NA NA	0.3
Soybean	0.3	0.15	0.15	NA	NA NA	0.3
Head and Stem Brassica	0.3	, 0.15	0.15	0.6	0.6	0.3
Leafy Brassica	0.3	0.15	0.15	0.4	0.4	0.3
Cucurbits	0.3	0.15	0.15	NA	NA NA	0.3
Eggplant	0.3	0.15	0.15	NA	NA NA	0.3
Pepper (Bell & Non- Bell)	0.3	0.15	0.15	NA	NA	0.3
Tomato	0.3	0.15	0.15	NA	NA NA	0.3
Head Lettuce	0.3	0.15	0.15	0.6	0.6	0.3
Succulent Peas and Beags o o	0.3	0.15	0.15	NA	NA	0.3
Dry Peas and Bean	0.3	0.15	0.15	NA -	NA NA	0.3
Turnip Greens	0.3	0.15	0.15	NA	NA NA	0.3
Rootsand Teuber	0.3	0.15	0.15	NA	NA	0.3
Treenuts	0.3.	0.15	0.15	NA	NA NA	0.3

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

	Maximum Seasonal Total (Ibs ai/acre)			
Crop		Bifenthirn	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)

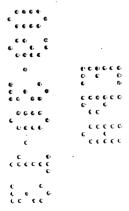
Pests Controlled	Rate of Application
Cutworm spp. Flea beetle	2.5 - 3.5 fl oz/A (0.029 - 0.041 lb ai/A
Aphid spp. Armyworm, fall* Armyworm, southern Armyworm, true Armyworm, yellowstriped Diamondback moth** Fleahopper Grasshopper Looper spp. Seedpod weevil Stinkbug spp.	3.5 – 4.7 fl oz/A (0.041 – 0.055lb ai/A)

- Restrictions
 PHI: Do not apply within 35 days of harvest.
- Application Interval: Do not make applications less than 14 days apart.
- Maximum Amount per Application: Do not apply more than 4.7 fl oz/A (0.055 lb ai/A) per application.
- Maximum Amount of F9043 EC Insecticide allowed per Season: Do not apply more than 12.8 fl oz/A (0.15 lb ai/A) per
- Refer to the maximum usage tables when applying more than one product containing either zeta-cypermethrin or bifenthrin to this crop.

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) Foliar Use Only.

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. Tobacco budworm** Webworm spp.	3.5 – 4.7 fl oz/A (0.041 – 0.055 lb ai/A)

Restrictions

- 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 of F9043 EC Insecticide allowed per Season: Do not apply more than 18.7 fl oz/A (0.22 lb ai/A) per season.
- Refer to the maximum usage tables when applying more than one product containing either zeta-cypermethrin or bifenthrin to this crop.
- Grazing: Do not graze livestock in treated areas or cut treated crops for feed within 30 days of the last application.

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

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

Remarks

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.

To control ear– attacking pests: Apply F9043 EC Insecticide when silking begins and repeat as necessary to maintain control.

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.

For control of other insect pests: Apply when pests first appear and repeat as necessary.

Higher rates will be necessary for heavier initial populations and corn under heat or drought stress.

*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.

Sweet Corn (Grain and Silage), Sweet Corn Grown for Seed (PHI 3 days)
Foliar Use Only.

Aphid spp. Army cutworm Armyworm, fall* Armyworm, southern Armyworm, southern Armyworm, yellowstriped Cereal leaf beetle Chinch bug Common stalk borer Corn blotch leafminer (adult) Corn earworm* Corn rootworm (adult) Cutworm spp. European corn borer False chinch bug Flea beetle Grasshopper spp. Greenbug Japanese beetle (adult) Leafhopper spp. Sap beetle Southwestern corn borer Stinkbug spp. Webworm spp. Western bean cutworm	Pests Controlled	Rate of Application
Armyworm, fall* Armyworm, southern Armyworm, yellowstriped Cereal leaf beetle Chinch bug Common stalk borer Corn blotch leafminer (adult) Corn earworm* Corn rootworm (adult) Com silk fly Cucumber beetle (adult) Cutworm spp. European corn borer False chinch bug 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		
Armyworm, southern Armyworm, true Armyworm, true Armyworm, yellowstriped Cereal leaf beetie 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 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		
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 Flea beetle Grasshopper spp. Greenbug Japanese beetle (adult) Leafhopper spp. Sap beetle Southwestern corn borer Stinkbug spp. Webworm spp. Western bean cutworm	Armyworm, fall*	
Armyworm, yellowstriped Cereal leaf beetle Chinch bug Common stalk borer Corn blotch leafminer (adult) Corn earworm* Corn rootworm (adult) Com silk fly Cucumber beetle (adult) Cutworm spp. European corn borer False chinch bug Flea beetle Grasshopper spp. Greenbug Japanese beetle (adult) Leafhopper spp. Sap beetle Southwestern corn borer Stinkbug spp. Webworm spp. Western bean cutworm		
Cereal leaf beetle Chinch bug Common stalk borer Corn blotch leafminer (adult) Corn earworm* Corn rootworm (adult) Courn silk fly Cucumber beetle (adult) Cutworm spp. European corn borer False chinch bug Flea beetle Grasshopper spp. Greenbug Japanese beetle (adult) Leafhopper spp. Sap beetle Southwestern corn borer Stinkbug spp. Webworm spp. Western bean cutworm		
Chinch bug Common stalk borer Corn blotch leafminer (adult) Corn earworm* Corn rootworm (adult) Com silk fly Cucumber beetle (adult) Cutworm spp. European corn borer False chinch bug 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		1
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 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		
Corn blotch leafminer (adult) Corn earworm* Corn rootworm (adult) Corn silk fly Cucumber beetle (adult) Cutworm spp. European corn borer False chinch bug Flea beetle Grasshopper spp. Greenbug Japanese beetle (adult) Leafhopper spp. Sap beetle Southwestern corn borer Stinkbug spp. Webworm spp. Uestern bean cutworm		
Corn earworm* Corn rootworm (adult) Com silk fly Cucumber beetle (adult) Cutworm spp. European corn borer False chinch bug Flea beetle Grasshopper spp. Greenbug Japanese beetle (adult) Leafhopper spp. Sap beetle Southwestern corn borer Stinkbug spp. Webworm spp. Western bean cutworm	Common stalk borer	
Corn rootworm (adult) Corn silk fly Cucumber beetle (adult) Cutworm spp. European corn borer False chinch bug 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	Corn blotch leafminer (adult)	
Com silk fly Cucumber beetle (adult) Cutworm spp. European corn borer False chinch bug 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	Corn earworm*	
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Cutworm spp. European corn borer False chinch bug 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	Corn silk fly	Ì
European corn borer False chinch bug 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	Cucumber beetle (adult)	
False chinch bug 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	Cutworm spp.	(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		
Grasshopper spp. Greenbug Japanese beetle (adult) Leafhopper spp. Sap beetle Southern corn leaf beetle Southwestern corn borer Stinkbug spp. Webworm spp. Western bean cutworm		
Greenbug Japanese beetle (adult) Leafhopper spp. Sap beetle Southern corn leaf beetle Southwestern corn borer Stinkbug spp. Webworm spp. Western bean cutworm	Flea beetle	F
Japanese beetle (adult) Leafhopper spp. Sap beetle Southern corn leaf beetle Southwestern corn borer Stinkbug spp. Webworm spp. Western bean cutworm	Grasshopper spp.	
Leafhopper spp. Sap beetle Southern corn leaf beetle Southwestern corn borer Stinkbug spp. Webworm spp. Western bean cutworm	Greenbug	
Sap beetle Southern corn leaf beetle Southwestern corn borer Stinkbug spp. Webworm spp. Western bean cutworm	Japanese beetle (adult)	
Southern corn leaf beetle Southwestern corn borer Stinkbug spp. Webworm spp. Western bean cutworm	Leafhopper spp.	
Southwestern corn borer Stinkbug spp. Webworm spp. Western bean cutworm		
Stinkbug spp. Webworm spp. Western bean cutworm	Southern corn leaf beetle	
Webworm spp. Western bean cutworm	Southwestern corn borer	
Western bean cutworm		
Postrictions		

Restrictions

. 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 of F9043 EC Insecticide allowed per Season: Do not apply more than 28.1 fl oz/A (0.33 lb ai/A) per season.
- Refer to the maximum usage tables when applying more than one product containing either zeta-cypermethrin or bifenthrin to this crop.
- Grazing: Do not graze livestock in treated areas or cut treated crops for feed within 3 days of the last application.

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

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

Remarks

General: Apply in a minimum of 2 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.

To control ear– attacking pests: Apply F9043 EC Insecticide when silking begins and repeat as necessary to maintain control. Direct applications at corn ears for optimum control.

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.

For control of other insect pests: Apply when pests first appear and repeat as necessary.

Higher rates will be necessary for heavier initial populations and corn under heat or drought stress.

*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.

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 Southern garden leafhopper Stinkbug spp. Tobacco budworm**	3.5 – 4.7 fl oz/A (0.041 – 0.055 lb ai/A)

Restrictions

- 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 of F9043 EC Insecticide allowed per Season: Do not apply more than 28.1 fl oz/A (0.33 lb ai/A) per season.
- Refer to the maximum usage tables when applying more than one product containing either zeta-cypermethrin or bifenthrin to this crop.
- **Grazing:** Do not graze livestock in treated areas or cut treated crops for feed.

Remarks

F9043 EC 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 EC Insecticide in refined vegetable oil in a minimum of 1 quart of finished spray per acre with aircraft calibrated to give adequate coverage.

To:ControbBoll Weevil: Apply F9043 EC Insecticide at an interval of 3 to 4 ปีผู้ริง 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 tarfic prixing with another product that is labeled for this pest is recommended for controls

**Pycethroid resistance iscommon 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 state nent in the DIRECTION FOR USE section of this label.

6 6 6 6 6 6 Peanut (PHI 14 days)

Restrictions

- PHI: Do not apply within 14 days of harvest.
- Application Interval: Do not make applications less than 14 days
- Maximum Amount per Application: Do not apply more than 4.7 fl oz/A (0.055 lb ai/A) per application.
- Maximum Amount of F9043 EC Insecticide allowed 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.
- Refer to the maximum usage tables when applying more than one product containing either zeta-cypermethrin or bifenthrin to this crop.

Remarks
Apply as required by scouting. 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)

by air).
Follow appropriate spray drift precautions on this label.
Do not feed green immature plants and peanut hay to livestock.

*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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Potato (PHI 21 days)

Totato (Frii Er dayo)	
Pests Controlled	Rate of Application
Cutworm spp.	2.5 -3.5 fl oz/A
Flea beetle spp.	(0.041 – 0.029 lb ai/A
Aphid spp.	3.5 – 4.7 fl oz/A
Armyworm, fail*	(0.041 – 0.055 lb ai/A)
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**	

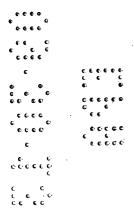
- PHI: Do not apply within 21 days of harvest.
- Application Interval: Do not make applications less than 21 days apart.
- Maximum Amount per Application: Do not apply more than 4.7 fl oz/A (0.055 lb ai/A) per application.
- Maximum Amount of F9043 EC Insecticide allowed per Season: Do not apply more than 28.1 fl oz/A (0.33 lb ai/A) per season. Restricted to 2 foliar applications per season.
- Refer to the maximum usage tables when applying more than one product containing either zeta-cypermethrin or bifenthrin to this crop.
- Leaves cannot be used for food or feed.

Remarks
Apply 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 EC Insecticide.



Soybeans (PHI 21 days)

Soybeans (PHI 21 days)	
Pest Controlled	Rate of Application
Cutworm spp.	2.5 -3.5 fl oz/A
Flea beetle spp.	(0.029 - 0.041 lb ai/A)
Green cloverworm	
Painted lady (thistle) caterpillar	1
Silverspotted skipper	
Alfalfa caterpillar	3.5 – 4.7 fl oz/A
Armyworm, fall*	(0.041 – 0.055 lb ai/A)
Armyworm, southern	
Armyworm, true	
Armyworm, yellowstriped	1
Bean leaf beetle	
Blister beetle spp.	
Corn earworm	
Corn rootworm (adult)	i
Cowpea curculio	\
Cucumber beetle (adult)	
Dectes stem borer (adult)**	1
European corn borer	1
False chinch bug	
Grape colaspis (adult)	
Grasshopper spp	· {
Hornworm spp.	
Imported cabbageworm	
Japanese beetle (adult)	
Leaf skeletonizer spp.	1
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	

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 of F9043 EC Insecticide allowed per Season: Do not apply more than 28.1 fl oz/A (0.33 lb ai/A) per season
- Refer to the maximum usage tables when applying more than one product containing either zeta-cypermethrin or bifenthrin to this crop.
- Grazing: Do not graze 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 EC Insecticide 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.

***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.

Rev: September 26, 2013

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

Aphid spp.* Armyworm, fall* Armyworm, southern Armyworm, true Armyworm, yellowstriped Click beetle (wireworm adult) Corn earworm Crickets Cucumber beetle Cutworm spp. Diamondhack moth*	Pest Controlled	Rate of Application
Flea beetle spp. Grasshopper spp. Imported cabbageworm Leafhopper spp. (adult) Leafminer spp. Looper spp. Saltmarsh caterpillar Southern cabbageworm Stinkbug spp. Tobacco budworm**	Armyworm, fall* Armyworm, southern Armyworm, southern Armyworm, yellowstriped Click beetle (wireworm adult) Corn earworm Crickets Cucumber beetle Cutworm spp. Diamondback moth* Flea beetle spp. Grasshopper spp. Imported cabbageworm Leafnopper spp. (adult) Leafminer spp. Saltmarsh caterpillar Southern cabbageworm Stinkbug spp.	

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 of F9043 EC Insecticide allowed 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.
- Refer to the maximum usage tables when applying more than one product containing either zeta-cypermethrin or bifenthrin to this crop.

Remarks

Apply in a minimum of 5 gallons of finished spray per acre by air or in a minimum of 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.

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.

Leafy Brassica (PHI 7 days)

Including: Broccoli raab; cabbage, Chinese (bok choy); collards; kale; mizuna; mustard greens; mustard spinach; rape greens

Pest Controlled	Rate of Application
Aphid spp.*	3.5 – 4.7 fl oz/A
Armyworm, fall*	(0.041 – 0.055 lb ai/A)
Armyworm, southern	· ·
Armyworm, true	1
Armyworm, yellowstriped	
Cabbageworm	· 1
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.	1 '
Onion thrips	
Tobacco budworm**	}
Wireworm (adult)	
Restrictions	

- PHI: Do not apply within 7 days of harvest.
- Application Interval: Do not make applications less than 7 days
- Maximum Amount per Application: Do not apply more than 4.7 fl oz/A (0.055 lb ai/A) per application.
- Maximum Amount of F9043 EC Insecticide allowed per Season: Do not apply more than 28.1 fl oz/A (0.33 lb ai/A) per
- Refer to the maximum usage tables when applying more than one product containing either zeta-cypermethrin or bifenthrin to this crop.

Remarks

Apply as required by scouting. 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.

**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.

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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*	3.5 – 4.7 fl oz/A
Armyworm, southern	(0.041 – 0.055 lb ai/A)
Armyworm, true	
Armyworm, yellowstriped	
Cabbage looper	
Corn earworm	
Corn rootworm (adult)	
Cucumber beetle spp. (adult)	•
Cutworm spp.	
Grasshopper	
Leafhopper spp.	
Melonworm	
Pickleworm	
Rindworm	
Squash bug	
Squash vine borer	\
Stink bug spp.	İ
Tobacco budworm**	

Restrictions

- PHI Do not apply within 3 days of harvest
- Application Interval: Do not make applications less than 7 days apart.
- Maximum Amount per Application: Do not apply more than 4.7 fl oz/A (0.055 lb ai/A) per application. Do not make more than two applications after bloom.
- Maximum Amount of F9043 EC Insecticide allowed per Season: Do not apply more than 28.1 fl oz/A (0.33 lb ai/A) per season.
- Refer to the maximum usage tables when applying more than one product containing either zeta-cypermethrin or bifenthrin to this crop.

Remarks

Apply in a minimum of 5 gallons of finished spray per acre by air or in a minimum of 20 gallons 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.
- **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. *	3.5 – 4.7 fl oz/A
Armyworm, fall*	(0.041 – 0.055 lb ai/A)
Armyworm, southern	[
Amryworm, true	
Armyworm, yellowstriped	
Cabbage looper	
Celery leaf tier	
Colorado potato beetle**	
Corn earworm	
Cucumber beetle	Į.
Cutworm spp.	1
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)	L

- Restrictions
 PHI: Do not apply within 7 days of harvest.
- Application Interval: Do not make applications less than 7 days
- Maximum Amount per Application: Do not apply more than 4.7 fl oz/A (0.055 lb ai/A) per application.
- Maximum Amount of F9043 EC Insecticide allowed per Season: Do not apply more than 28.1 fl oz/A (0.33 lb ai/A) per season.
- Refer to the maximum usage tables when applying more than one product containing either zeta-cypermethrin or bifenthrin to this crop.

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.

**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 if the DIRECTION FOR USE section of this label.



Tomato (PHI 1 day)

Pest Controlled	Rate of Application
Aphid spp.*	3.5 – 4.7 fl oz/A
Armyworm, fall*	(0.041 – 0.055 lb ai/A)
Armyworm, southern	
Amryworm, 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)	

- 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 of F9043 EC Insecticide allowed 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.
- Refer to the maximum usage tables when applying more than one product containing either zeta-cypermethrin or bifenthrin to this crop.

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
- **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.

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Leafy Vegetables

Head Lettuce (PHI 7 days)

Pests Controlled	Rate of Application
Aphid spp.*	3.5 – 4.7 fl oz/A
Armyworm, fall*	(0.041 – 0.055 lb ai/A)
Armyworm, southern	
Amryworm, true	
Armyworm, yellowstriped	
Chinch bug	
Corn earworm	
Crickets	
Cucumber beetle	
Cutworm spp.	
Diamondback moth**	
False chinch bug	
Flea beetle spp.	
Imported cabbageworm	
Leafhopper spp.	1
Leafminer (adults)	
Looper spp.	
Saltmarsh caterpillar	
Stinkbug spp.	
Tobacco budworm**	

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 of F9043 EC Insecticide allowed per Season: Do not apply more than 28.1 fl oz/A (0.33 lb ai/A) per season.
- Refer to the maximum usage tables when applying more than one product containing either zeta-cypermethrin or bifenthrin to this crop.

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
- **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; Field Bean; Kidney Bean; Navy Bean; Pinto Bean; Tepary Bean; Adzuki Bean; Catjang; Cowpea; Crowder Pea; Moth Bean; Mung Bean; Rice Bean; Urd Bean; Chickpea (Garbanzo Bean); Guar; Lablab bean.

Pest Controlled	Rate of Application
Alfalfa caterpillar	3.5 – 4.7 fl oz/A
Aphid spp.*	(0.041 – 0.055 lb ai/A)
Armyworm, fail*	
Armyworm, southern	
Armyworm, true	
Armyworm, yellowstriped	
Bean leaf beetle	
Blister beetle spp.	
Chinch bug	
Corn earworm	1
Corn rootworm (adult)	
Cowpea curculio	
Cucumber beetle (adult)	
Cutworm spp.	1
Dectes stem borer (adult)	1
European corn borer	
False chinch bug	
Flea beetle spp.	1 .
Grasshopper spp.	
Green cloverworm	
Hornworm spp.	
Imported cabbageworm	
Japanese beetle (adult)	1
Leaf skeletonizer spp.	}
Leafhopper spp.	
Leafminer spp.(adult)	
Lesser cornstalk borer	İ
Looper spp.	
Mexican bean beetle	
Painted lady (thistle) caterpillar	
Pea leaf weevil	ĺ
Pea seed weevil	
Saltmarsh caterpillar	
Sap beetle	
Seedcorn maggot (adult)	
Silverspotted skipper	
Southwest corn borer	
Spittlebug	
Stinkbug spp. Threecorpored alfalfa benner	
Threecornered alfalfa hopper	
Thrips spp.	
Tobacco budworm**	
Velvetbean caterpillar	
Webworm spp.	
Western bean cutworm	L
Restrictions	

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 of F9043 EC Insecticide allowed per Season: Do not apply more than 28.1 fl oz/A (0.33 lb ai/A) per season.
- Refer to the maximum usage tables when applying more than one product containing either zeta-cypermethrin or bifenthrin to this crop.

Rev: September 26, 2013

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.	2.5 -3.5 fl oz/A
Flea beetle spp.	(0.041 – 0.029 lb ai/A
Grasshopper spp.	
Aphid spp.*	3.5 – 4.7 fl oz/A
Armyworm, fall*	(0.041 0.055 lb ai/A)
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)	
Restrictions	

PHI: Do not apply within 21 days of harvest.

- Application Interval: Do not make applications less than 21 days
- Maximum Amount per Application: Do not apply more than 4.7 fl oz/A (0.055 lb ai/A) per application.
- Maximum Amount of F9043 EC Insecticide allowed 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.
- Refer to the maximum usage tables when applying more than one product containing either zeta-cypermethrin or bifenthrin to

Leaves of Root and Tuber Vegetables cannot be used for food or

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

Apply by ground or air equipment using sufficient water to obtain full coverage of foliage (minimum of 10 gallons by ground and 2 gallons

Follow appropriate spray drift precautions on this label. Apply foliar treatments in at least 25 gallons per acre.

*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

**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.

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Turnip Greens (PHI 7 days)

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

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 of F9043 EC Insecticide allowed per Season: Do not apply more than 28.1 fl oz/A (0.33 lb ai/A) per
- Refer to the maximum usage tables when applying more than one product containing either zeta-cypermethrin or bifenthrin to this crop.

Remarks

Apply as required by scouting. 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 of F9043 EC Insecticide allowed per Season: Do not apply more than 28.1 fl oz/A (0.33 lb ai/A) per season.
- Refer to the maximum usage tables when applying more than one product containing either zeta-cypermethrin or bifenthrin to this crop.
- Grazing: Do not graze livestock in treated orchards or cut treated cover crops for feed.

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.

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