

#### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

February 8, 2017

Kelly K. Rahn AMVAC Chemical Corporation 4695 MacArthur Court, Suite 1200 Newport Beach, CA 92660

Subject: Notification per PRN 98-10 –Minor changes in label Product Name: 2016BIFENTHRIN EPA Registration Number: 5481-609 Application Date: 1/20/2017 Decision Number: 525444

Dear Ms. Rahn:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 for the above referenced product. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action requested falls within the scope of PRN 98-10.

The label submitted with the application has been stamped "Notification" and will be placed in our records.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

If you have any questions, you may contact Angela Hollis at 703-347-0216 or via email at <u>hollis.angela@epa.gov</u>.

Sincerely,

Kable Bo Davis, Product Manager 3 Invertebrate and Vertebrate Branch 1 Registration Division (7505P) Office of Pesticide Programs

#### *{NOTE TO REVIEWER:* THIS IS A MASTER LABEL FOR 2016BIFENTHRIN SUB-LABEL A CONTAINS CROP USES SUB-LABEL B CONTAINS NON-CROP USES*}*

### **SUB-LABEL A**

#### **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 certification.

GROUP 3 INSECTICIDE

### 2016bifenthrin <u>{Alternate Brand Name: Xpedient Plus V}</u>

For use on artichokes, beans, brassicas, brassica vegetables, bushberries, caneberries, canola, christmas trees, cilantro, citrus, conifer seed orchards, coriander, corn, cotton, crambe, cucurbits, eggplant, field corn, garden beets, grapes, grasses, head lettuce, hops, leafy brassicas, leafy petiole vegetables, mayhaw, okra, peanuts, pears, peas, peppers, popcorn, rapeseed, root crops (except sugar beets), soybeans, spinach, succulent peas and beans, sweet corn, tobacco, tomatoes, tree nuts and tuberous vegetables, turnip greens and corm vegetables to control listed insects/pests and mites.

[Product Name] is formulated to be compatible with liquid fertilizers.

#### **ACTIVE INGREDIENT:**

Contains petroleum distillate

\*\*Contains xylene range aromatic solvents.

#### NOTIFICATION

#### 5481-609

The applicant has certified that no changes, other than those reported to the Agency have been made to the labeling. The Agency acknowledges this notification by letter dated:

02/08/2017

This product contains 2 pounds active ingredient per gallon.

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

### KEEP OUT OF REACH OF CHILDREN WARNING - AVISO

(This label must be in the possession of the user at the time of application.) See other panels for additional precautionary information.

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.)

EPA Reg. No. **5481-609** 

EPA Est. No.

(Made in U.S.A.)

As Marked on Container

Net Weight:

609-20160427(FPL Master) for (S)20160411201720.merged laebl swap.redline





AMVAC Chemical Corporation

4100 E. Washington Blvd. Los Angeles, CA 90023 U.S.A. 1-888-462-6822

	FIRST AID
If swallowed	Call a poison control center or doctor immediately for treatment advice.
	• Do not give any liquid to the person.
	• Do not induce vomiting unless told to do so by the poison control center or doctor.
	• Do not give anything by mouth to an unconscious person.
If inhaled	Move person to fresh air.
	• If person is not breathing, call 911 or an ambulance, then give artificial respiration,
	preferably mouth-to-mouth, if possible.
	Call a poison control center or doctor for further treatment advice.
If in eyes	• Hold eye open and rinse slowly and gently with water for 15-20 minutes.
	• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
	Call a poison control center or doctor for treatment advice.
If on skin or	Take off contaminated clothing.
clothing	• Rinse skin immediately with plenty of water for 15-20 minutes.
	Call a poison control center or doctor for treatment advice.
	EMERGENCY INFORMATION
Have the product co	ontainer or label with you when calling a poison control center or doctor, or going for
treatment. FOR TI	HE FOLLOWING EMERGENCIES, PHONE 24 HOURS A DAY:
For Medical Emerg	encies phone:1-888-681-4261
For Transportation	Emergencies, including spill, leak or fire, phone: CHEMTREC <sup>®</sup>
For Product Use I	nformation phone: AMVAC <sup>®</sup> 1-888-462-6822
	NOTE TO PHYSICIAN
This product is a py	rethroid. If large amounts have been ingested, the stomach and intestine should be evacuated.
Treatment is sympt	omatic and supportive. Digestible fats, oils, or alcohol may increase absorption and so should
be avoided. Contain	ns petroleum distillate – vomiting may cause aspiration pneumonia.

#### **PRECAUTIONARY STATEMENTS**

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**WARNING:** May be fatal if swallowed. Harmful if inhaled or absorbed through skin. Causes moderate eye irritation. Avoid breathing vapor or spray mist. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, using tobacco, or using the toilet. Remove contaminated clothing and wash clothing before reuse.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

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

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

- Long-sleeved shirt and long pants.
- Chemical-resistant gloves, such as barrier laminate or nitrile rubber or neoprene rubber or Viton<sup>®</sup>.
- 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 nitrile rubber or neoprene rubber or Viton.
- Shoes plus socks, and
- Protective eyewear.

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

#### **User Safety Recommendations**

Users should:

- 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.

#### **ENVIRONMENTAL HAZARDS**

This pesticide is extremely toxic to fish and aquatic invertebrates. Use with care when applying in areas adjacent to any body of water. 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 make applications when weather conditions favor drift from treated areas. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwaters.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees are foraging the treatment area.

The use of bifenthrin is prohibited in areas that may result in exposure of endangered species to bifenthrin. Prior to use in a particular county, contact the local extension service for procedures and precautions to use to protect endangered species.

#### PHYSICAL AND CHEMICAL HAZARDS

Do not use or store near heat or open flame.

#### **DIRECTIONS FOR USE**

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

(Management of) Pest Resistance: Pests have demonstrated the ability to develop resistance to continual use of the same product or to products with a similar mode of action. In order to avoid conditions which favor development of pest resistance, follow established resistance management guidelines in your geography as recommended by state agricultural extension personnel and crop consultants. If product performance diminishes and pest resistance is suspected to have developed in your geography, and specifically on your crop, repeated use of this product may not adequately control the target pest. As soon as practical, contact your local crop consultant, agricultural advisor, or company representative to obtain information on alternative pest management strategies in your geography.

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 nitrile rubber or neoprene rubber or Viton, and
- Shoes plus socks.

*{NOTE TO REVIEWER* – The Chemigation Use Directions will appear on commercial labels when crops are included that allow for application of pesticide by means of chemigation. If the commercial labels only contain crops for which application is not done by means of chemigation, the statement "Do not apply using chemigation" will be used instead of the Chemigation Use Directions.}

#### CHEMIGATION USE DIRECTIONS

Apply this product only through sprinklers 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 an irrigation system (including greenhouse systems) used for pesticide application to a public water system.

For Low Energy Precision Application (LEPA) irrigation of a minimum of 0.75 inch of water per acre is recommended. Where non-emulsified oils are used as the diluent, 1 to 2 pints per acre is recommended.

Results from utilizing chemigation have been variable and depend upon the set up and calibration of equipment. Crop injury, lack of effectiveness, or illegal residues in the crop can result from non-uniform distribution of treated water. Contact your State Agricultural Extension Service specialists, equipment manufacturers or other experts for consultation on the suitability of the equipment set up to obtain effective control of the target insect pests.

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. Failure to cease application during a mechanical stoppage may result in undesireable residues to adjacent areas.

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 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 which 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.

Do not apply when wind speed favors drift beyond the area intended for treatment. Product should be applied continuously for the duration of the water application. Product should be diluted in sufficient volume to ensure accurate application over the area to be treated. When using chemigation, a minimum of 0.5 inch per acre of irrigation water is recommended. Agitation generally is not required when a suitable diluent is used. A diluent test should be conducted to ensure that phase separation will not occur during dilution and application. Failure to achieve a uniform dilution throughout the time of application may result in undesirable residues or less than desirable control.

#### **Rotational Crops**

Crops for which bifenthrin tolerances exist may be rotated at any time. All other crops may be rotated 30 days following the final application of bifenthrin.

#### **Tank-Mixture**

Product may be applied in tank mixtures with other products approved for use on registered crops. Observe all restrictions and precautions which appear on the labels of these products. Test for compatibility of products before mixing.

#### **Application Instructions (Directions for Application and Mixing)**

(The product is designed to be mixed with liquid fertilizers or with water.) Rate of application is variable according to pest pressure, timing of sprays, and field scouting. Use lower rates under light to moderate infestations; higher rates under heavy insect pressure and for mite control. Arid climates generally require higher rates.

Mix product with water or fertilizer in the following manner. Fill the spray tank approximately one-half full with water or liquid fertilizer, add the proper amount of product, and then add the rest of the water or fertilizer. Provide sufficient agitation during mixing and application to maintain a uniform spray mixture.

Applications of this product alone or in recommended tank mixtures, in conjunction with liquid starter or pop-up fertilizers may be used. A jar compatibility test should be performed with the appropriate ratio of 2016bifenthrin and fertilizer prior to use. Constant agitation should be maintained during mixing and application. If the mixture sits overnight, thoroughly agitate before use.

Apply as a T-band treatment over an open seed furrow, in-furrow with the seed or as a broadcast soil application. Position the spray nozzle behind the planter shoe, in front of the press wheel centered over the row. Use the crop tables below to determine the product needs per acre. Apply in a minimum of 3 gallons of finished spray per acre.

Cultivation within 10 feet of a water body is prohibited to allow for the growth of a vegetative filter strip.

*{NOTE TO REVIEWER:* The following New York-related statement will be included on commercial labels that allow for aerial product application *}* 

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.

#### -OR-

*{NOTE TO REVIEWER:* The following New York-related statement will be included on commercial labels that do not allow for aerial product application *}* 

In **New York State** this product may not be applied within 100 feet (using ground equipment) of coastal marshes or streams that drain into coastal marshes.

#### Maximum Allowable Use of Bifenthrin Per Acre Per Season

Refer to the individual crop sections for maximum allowable product usage per acre per season. The maximum allowable use must include all registered use patterns including at plant, soil applied, and/or foliar applications for a 12 month period. The 12 month period is to begin upon the initial application to the acre.

#### **Buffer Zones**

#### Vegetative Buffer Strip

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

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Only apply products containing 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. 21 pp. <u>http://pesticidestewardship.org/drift/Documents/ conservbuffers.pdf</u>

{*NOTE TO REVIEWER*: The following Buffer Zone for Ground Application paragraph will be used on commercial labels that allow for application by means of chemigation:}

#### **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, streams, marshes, natural ponds, estuaries, and commercial fish ponds).

#### -OR-

{*NOTE TO REVIEWER*: The following Buffer Zone for Ground Application paragraph will be used on commercial labels that prohibit application by means of chemigation:}

#### **Buffer Zone for Ground Application (groundboom or airblast)**

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

{*NOTE TO REVIEWER*: The following Buffer Zone for ULV Aerial Application paragraph will not be included on commercial labels that prohibit aerial application:}

#### **Buffer Zone for ULV Aerial Application**

Do not apply within 450 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, streams, marshes, natural ponds, estuaries, and commercial fish ponds).

{*NOTE TO REVIEWER*: The following Buffer Zone for Non-ULV Aerial Application paragraph will not be included on commercial labels that prohibit aerial application:}

#### **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, 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<sup>TM</sup> (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 measured 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.

{*NOTE TO REVIEWER*: The following Additional Requirements for Aerial Applications paragraph will not be included on commercial labels that prohibit aerial application: } 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.

#### (CROP USE DIRECTIONS)

ARTICHOKE (FOLIAR USE)						
		DOS	SAGE			
PEST	PLACEMENT	Fluid Ounces per Acre	Pounds Active Ingredient			
		(Fl. oz./A)	per Acre			
			(Lbs. a.i./A)			
Artichoke Plume Moths	Foliar	6.40	0.10			
Cribrate Weevils						
DEMADIZS						

#### REMARKS

Apply this product when pest population reaches damaging threshold and repeat as necessary to maintain control, but not more often than 15 day intervals.

Application by ground: Apply a full cover spray in a minimum of 75 gallons of finished spray per acre.

Application by air: Apply specified dosage in a minimum of 10 gallons per acre.

#### RESTRICTIONS

Do not exceed 0.5 pound active ingredient per acre per season. Do not apply within 5 days of harvest.

#### BEANS & PEAS (DRIED) (AT PLANT USE)

Dried cultivars of: Bean (*Lupinus*); Bean (*Phaseolus*), Field bean, Kidney bean, Lima bean (dry), Navy bean, Pinto bean, Tepary bean; Bean (*Vigna*), Adzuki bean, Blackeyed pea, Catjang, Cowpea, Crowder pea, Moth bean, Mung bean, Rice bean, Southern pea, Urd bean; Broad bean (dry), Chickpea, Guar, Lablab bean, Lentil; Pea (*Piscum*), Field pea, Pigeon pea. (NOT FOR USE IN CALIFORNIA)

[OPTIONAL: (For use in California see 'California Use Directions' section of this label) -OR- (Not for use in California)]

		DOSAGE				
PEST	PLACEMENT	Fluid Ounces per Acre (Fl. oz./A)	Fluid Ounces per 1000 Row Feet (Fl. oz./1000 Row Ft.)	Pounds Active Ingredient per Acre (Lbs. a.i./A)		
Armyworm species	At Plant	2.56 - 5.12	0.15 - 0.30	0.04 - 0.08		
(including True*)						
Cutworm species						
(including Army*)						
Grape Colaspis						
Grubs						
Root Maggots						
Wireworms						
Corn Rootworm	At Plant	5.12 - 6.40	0.30 - 0.37	0.08 - 0.10		
Larvae						
REMARKS						

Apply as a 5-7 inch band over the row on the soil surface, 5-7 inch T-band over the open seed furrow, or in-furrow with the seed.

\*Cutworm and Armyworm treatments may be applied as broadcast applications to the soil surface.

#### RESTRICTIONS

Do not apply more than 0.1 pound active ingredient per acre per season as an at plant application. Do not apply more than 0.2 pound active ingredient to peas or 0.3 pound active ingredient to beans per acre per season including at plant plus foliar applications of all bifenthrin products.

#### BRASSICA 'HEAD AND STEM' VEGETABLES (AT PLANT USE)

'Head and Stem' Brassica Vegetables including: Broccoli, Chinese, Broccoli (gai lan, white flowering broccoli), Brussels Sprouts, Cauliflower, 'Cavalo' broccoli, Kohlrabi, Cabbage, Chinese cabbage (napa), and Chinese mustard cabbage (gai choy). (NOT FOR USE IN CALIFORNIA)

[OPTIONAL: (For use in California see 'California Use Directions' section of this label) -OR- (Not for use in California)]

		DOSAGE			
PEST	PLACEMENT	Fluid Ounces per Acre (Fl. oz./A)	Fluid Ounces per 1000 Row Feet (Fl. oz./1000 Row Ft.)	Pounds Active Ingredient per Acre (Lbs. a.i./A)	
Armyworms* Cabbage Maggots Cutworms* (including Army)* Grubs Root Aphids Root Maggots Seedcorn Maggots Wireworms	At Plant	2.56 - 5.12	0.15 - 0.30	0.04 - 0.08	
Rootworm Larvae	At Plant	5.12 - 6.40	0.30 - 0.37	0.08 - 0.10	

#### REMARKS

Apply as a 5-7 inch T-band over the open seed furrow, or in-furrow with the seed.

\*Cutworm and Armyworm treatments may be applied as broadcast applications to the soil surface.

#### RESTRICTIONS

Do not apply more than 0.1 pound active ingredient per acre per season as an at plant application. Do not apply more than 0.5 pound active ingredient per acre per season including at plant plus foliar applications of all bifenthrin products. **BRASSICA 'HEAD AND STEM' VEGETABLES** (FOLIAR USE) Head and Stem Brassica Vegetables including: Broccoli, Chinese Broccoli (gai lan, white flowering broccoli), Brussels Sprouts, Cauliflower, 'Cavalo' broccoli, Kohlrabi, Cabbage, Chinese Cabbage (napa), Chinese Mustard Cabbage (gai choy) [OPTIONAL: (For use in California see 'California Use Directions' section of this label) –OR- (Not for use in California)]

		DOS	AGE
PEST	PLACEMENT	Fluid Ounces per Acre	<b>Pounds Active Ingredient</b>
1231		(Fl. oz./A)	per Acre
			(Lbs. a.i./A)
Aphids	Foliar	2.10-6.40	0.03-0.10
Armyworms			
Corn Earworms			
Crickets			
Cucumber Beetles			
Cutworms			
Diamondback Moths			
Flea Beetles			
Ground Beetles			
Imported Cabbageworms			
Leafhoppers			
Loopers			
Saltmarsh Caterpillars			
Stink Bugs			
Thrips			
Tobacco Budworms			
Whiteflies			
Wireworm (adults)			
Mites (Banks Grass,	Foliar	5.12-6.40	0.08-0.10
Twospotted, Carmine and			
Pacific Spider)			
Plant Bugs (Lygus			
species)			

#### REMARKS

Apply this product 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.

#### RESTRICTIONS

Do not apply more than 0.5 pound active ingredient per acre per season including at plant plus foliar applications of all bifenthrin products.

Do not make more than 5 applications after bloom.

Do not make applications less than 7 days apart.

Do not apply within 7 days of harvest.

#### BRASSICA LEAFY VEGETABLES, TURNIP GREENS (AT PLANT USE)

Broccoli raab, Bok choy, Collard, Kale, Mizuna, Mustard greens, Mustard spinach, Rape greens, Turnip and Turnip greens. (NOT FOR USE IN CALIFORNIA)

[OPTIONAL: (For use in California see 'California Use Directions' section of this label) -OR- (Not for use in California)]

		DOSAGE		
PEST	PLACEMENT	Fluid Ounces per Acre (Fl. oz./A)	Fluid Ounces per 1000 Row Feet (Fl. oz./1000 Row Ft.)	Pounds Active Ingredient per Acre (Lbs. a.i./A)
Armyworms* (including True*) Cutworms* (including Army*) Grubs Lettuce Root Aphids	At Plant	2.56 - 5.12	0.15 - 0.30	0.04 - 0.08

Root Maggots Wireworms				
Rootworm Larvae	At Plant	5.12 - 6.40	0.30 - 0.37	0.08 - 0.10

Apply as a 5-7 inch band over the row on the soil surface, a 5-7 inch T-band over the open furrow, or in-furrow with the seed. \*Apply broadcast to the soil surface for control of Army Cutworm, Armyworms, Cutworms, or True Armyworm.

#### RESTRICTIONS

Do not apply more than 0.1 pound active ingredient per acre per season as an at plant application. Do not apply more than 0.4 pound active ingredient per acre per season including at plant plus foliar applications of all bifenthrin products.

#### **BUSHBERRIES (FOLIAR USE)**

Blueberry, highbush and lowbush, Currant, Elderberry, Gooseberry, Huckleberry (NOT FOR USE IN CALIFORNIA)

[OPTIONAL: (For use in California see 'California Use Directions' section of this label) -OR- (Not for use in California)]

			DOSAGE	
PEST	PLACEMENT	Fluid Ounces per Acre (Fl. oz./A)	Fluid Ounces per 1000 Row Feet (Fl. oz./1000 Row Ft.)	Pounds Active Ingredient per Acre (Lbs. a.i./A)
Aphids	Foliar	2.56 - 6.40	0.15 - 0.37	0.04 - 0.10
Blueberry Maggots				
Fruitworms				
Lecanium Scale (Crawlers)				
Leafhoppers				
Obliquebanded Leafrollers				
Plum Curculios				
Red banded Leafrollers				
Spanworms				
Variegated Leafrollers				
Mites (Banks Grass,	Foliar	5.12 - 6.40	0.30 -0.37	0.08 - 0.1
Twospotted Spider, Carmine				
and Pacific Spider)				
Plant Bugs (Lygus species)				

#### REMARKS

Apply in a minimum of 2 gallons of finished spray per acre by air or in a minimum of 10 gallons finished spray per acre with ground equipment. Thorough coverage is essential to achieve control.

#### RESTRICTIONS

Do not apply more than 0.5 pound active ingredient per acre per season. Do not make applications less than 7 days apart. Do not apply within 1 day of harvest.

#### CANEBERRIES

Caneberries including: Blackberries, Bingleberries, Dewberries, Lowberries, Marionberries, Olallieberries, Youngberries, Loganberries, Raspberries [OPTIONAL: (For use in California see 'California Use Directions' section of this label) –OR- (Not for use in California)](For use in California see 'California Use Directions' section of this label) – OR- (Not for use in California)]

		DOSAG	<b>JE</b>
PEST	PLACEMENT	Fluid Ounces per Acre (Fl. oz./A)	Pounds Active Ingredient per Acre (Lbs. a.i./A)

Leafrollers Orange Tortrix Root Weevils	Foliar	3.20-6.40	0.05-0.10
Spider Mites	Foliar	6.40	0.10

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

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

#### RESTRICTIONS

Do not apply within 3 days of harvest.

Do not exceed 0.2 pound active ingredient per acre per season.

		DOSAGE		
PEST	PLACEMENT	Fluid Ounces per Acre (Fl. oz./A)	Pounds Active Ingredient per Acre (Lbs. a.i./A)	
Aphids Armyworms Cutworms Diamondback Moths Flea Beetles Flea Hoppers Grasshoppers Loopers Other <i>Lepidopterous</i> Larvae Plant Bugs ( <i>Lygus</i> species) Stink Bugs Seedpod Weevils Thrips Whiteflies	Foliar	2.10-2.60	0.03-0.04	

#### REMARKS

Apply this product 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.

#### RESTRICTIONS

Do not apply more than 0.08 pound active ingredient (5.12 fluid ounces) per acre per season. Do not make applications less than 14 days apart. Do not apply within 35 days of harvest.

CHRISTMAS TR NOTE: Only for use i	EES (FOLIAR USE) n the States of Washingto	on and Oregon		
DOSAGE				
PEST	PLACEMENT	Fluid Ounces per Acre (Fl. oz./A)	Pounds Active Ingredient per Acre (Lbs. a.i./A)	
Root Weevil Spruce Spider Mite	Foliar	3.9-6.4	0.06-0.1	
REMARKS				

Apply this product 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. Not all species and varieties have been tested. Prior to full scale application, treat a few plants for observation.

#### RESTRICTIONS

Do not apply more than 0.1 pound active ingredient per acre per application. Do not make more than 2 foliar applications of bifenthrin per season. Do not make applications less than 21 days apart.

#### CILANTRO & CORIANDER (AT PLANT USE)

[OPTIONAL: (For use in California see 'California Use Directions' section of this label) –OR- (Not for use in California)](NOT FOR USE IN CALIFORNIA)

			DOSAGE	
PEST	PLACEMENT	Fluid Ounces per Acre (Fl. oz./A)	Fluid Ounces per 1000 Row Feet (Fl. oz./1000 Row Ft.)	Pounds Active Ingredient per Acre (Lbs. a.i./A)
Armyworm species Cutworm species Flea Beetle Larvae Wireworms	At Plant	2.56 - 5.12	0.15 - 0.30	0.04 - 0.08

#### REMARKS

Apply as a 5-7 inch band over the row on the soil surface, 5-7 inch T-band over the open seed furrow, in-furrow with the seed or broadcast to the soil surface.

#### RESTRICTIONS

Do not apply more than 0.1 pound active ingredient per acre per season as an at plant application. Do not apply more than 0.5 pound active ingredient per acre per season including at plant plus foliar applications of all bifenthrin products.

		DO	SAGE
PEST	PLACEMENT	Fluid Ounces per Acre (Fl. oz./A)	Pounds Active Ingredient per Acre (Lbs. a.i./A)
Cockroaches, Asian	Bare Soil Surface	16.00 - 32.00	0.25 - 0.50
Fire Ants	Under Drip Line	6.40 - 16.00	0.10 - 0.25 (Florida)
Blue-Green Citrus Root Weevils	Bare Soil Surface	16.00 - 32.00	0.25 - 0.50
Brown Leaf Notchers	Under Drip Line		
Diaprepes Root Weevils			
Little Leaf Notchers			
Southern Blue-Green Citrus Root			
Weevils, other			

#### REMARKS

Apply product by ground equipment to bare soil beneath citrus trees. Product must be uniformly applied from the trunk to the drip line of tree; apply in a minimum of 40 gallons of dilute spray per acre. Greater spray volume should ensure greater uniformity of coverage. Pre and post application irrigation may aid in the uniformity of coverage as well.

Product protects citrus tree roots from *Diaprepes* and other citrus root weevil feeding by forming a barrier which provides contact activity on newly hatched larvae (neonates). As citrus root weevil eggs hatch in new foliage, neonates fall to the soil surface beneath the tree and come in contact with this product as they attempt to burrow into the root zone. Disturbance of the soil beneath trees should be minimized.

Timing of product application is critical. Current information suggests that peak emergence of adult *Diaprepes* Weevil varies by citrus growing region and these emergence peaks can be dramatically affected by environmental factors, such as soil moisture. Typically, two peaks are observed for *Diaprepes*, first in spring then late summer or early fall. Southern Blue-Green and Blue-Green Citrus Weevils typically exhibit a single emergence peak in the spring. Brown and Little Leaf Notchers typically exhibit three emergence peaks, spring and summer and fall. Since emergence varies seasonally and by

location, timing of product application can be accurately forecasted by observing adults. Adults are most active early morning and late afternoon; numbers can be estimated by trapping throughout spring and summer (emergence periods). Egg laying will occur for 8 to 10 weeks following adult emergence from the soil; larval invasion of the soil will begin 2-3 weeks following adult emergence. It is critical to have the product soil barrier in place prior to drop of the neonates.

This product is one of several effective tools in an integrated pest management program for citrus root weevils. Application of this product should be used in conjunction with good cultural practices, biological control of larvae and foliar control of adults. Consult local university extension personnel for current information to protect citrus trees from Citrus Root Weevils and other pests.

#### ADDITIONAL INFORMATION

Apply to individual citrus resets, when not in solid planted rows, using hand-gun or shielded sprayer. Peak emergence of *Diaprepes* root weevil generally occurs in the spring. Depending on weather conditions, a minor emergence of *Diaprepes* root weevil may also occur in the fall.

If the citrus grove to be treated is in an area where weather conditions are conducive to primary emergence occurring in the spring, 32 fluid ounces per acre of formulated product should be used to obtain the longest residual management of *Diaprepes* root weevil.

If the citrus grove to be treated is in an area where weather conditions will promote more than one peak of pest emergence, 16 fluid ounces per acre of formulated product can be applied early season and 16 fluid ounces per acre of formulated product can be applied later in the season.

#### RESTRICTIONS

Do not apply through irrigation systems.

Do not allow any application of this product to contact fruit or foliage.

Do not apply more than a total of 32 fluid ounces of formulated product (0.5 pound active ingredient) per acre per year.

Apply the specified dosage in a minimum of 40 gallons of finished spray per acre.

Ground application only.

Do not apply by air.

Do not apply within 1 day of harvest.

#### **CONIFER SEED ORCHARDS (FOLIAR USE)**

NOTE: Only For use in Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, Oklahoma, South Carolina, Tennessee, Texas and Virginia.

		DOSAGE		
PEST	PLACEMENT	Fluid Ounces per Acre (Fl. oz./A)	Pounds Active Ingredient per Acre (Lbs. a.i./A)	
Cone Worms Seed Bugs	Foliar	6.4-12.8	0.1-0.2	
Seed Worms				

#### REMARKS

Apply recommended dosage in 100-500 gallons of water per acre by ground and in 10 gallons of water or 0.5 gallons of refined vegetable oil per acre by air. Thorough coverage is essential. Begin application 7 days after peak pollen flight and continue on 30 day intervals up to a maximum of 0.6 pound active ingredient per acre per season.

#### RESTRICTIONS

Do not apply more than 0.6 pound active ingredient per acre per season. Do not make more than 6 applications per season.

#### CORN, FIELD (GRAIN AND SILAGE), FIELD CORN GROWN FOR SEED, POPCORN (AT PLANT USE) [OPTIONAL: (For use in California see 'California Use Directions' section of this label) –OR- (Not for use in California)](For use in California see 'California Use Directions' section of this label) –OR- (Not for use in California)]

		DOSAGE			
PEST	PLACEMENT	Fluid Ounces per Acre** (Fl. oz./A)	Fluid Ounces per 1000 Row Feet (Fl. oz./1000 Row Ft.)	Pounds Active Ingredient per Acre** (Lbs. a.i./A)	
Armyworms* ( including	At Plant	2.56 - 10.24	0.15 - 0.60	0.04 - 0.16	
True*)					
Common Stalk Borer*					
Cutworms*( including Army*)					
Grubs					
Seed Corn Beetles					
Seed Corn Maggots					
Wireworms					
Corn Rootworm Larvae	At Plant	5.12 - 12.80	0.30 - 0.74	0.08 - 0.20	
(Northern, Southern and					
Western)					

#### REMARKS

Apply as a 5 to 7 inch T-band over an open furrow, or in-furrow with the seed.

\*For Army Cutworm, Armyworms, Common Stalk Borer, Cutworms, or True Armyworm, apply as a 5 to 7 inch band over the row on the soil surface, a 5 to 7 inch T-band over the open furrow, in-furrow with the seed, or broadcast to the soil surface.

\*\*For 30 inch rows.

#### RESTRICTIONS

Do not apply more than 0.2 pound active ingredient per acre per season as an at plant application. For field corn, do not apply more than 0.3 pound active ingredient per acre per season including pre-plant incorporated (PPI), at plant, pre-emergence (PRE), and foliar applications of all bifenthrin products.

## CORN, FIELD (GRAIN AND SILAGE), FIELD CORN GROWN FOR SEED, POPCORN (PRE & PPI)

		DOSAGE			
PEST	PLACEMENT	Fluid Ounces per	Pounds Active		
FESI	FLACEWIENI	Acre	Ingredient per Acre		
		(Fl. oz./A)	(Lbs. a.i./A)		
Armyworms	Pre-Plant Incorporated	3.0 - 4.0	0.05 - 0.06		
Black Cutworms	(PPI)				
Grape Colaspis					
Seedcorn Maggots					
White Grubs					
Wireworms					
Armyworms	Pre-Emergence	2.56	0.04		
Black Cutworms	(PRE)				
Common Stalk Borers					

The 3-4 fl. oz./A rates must be pre-plant incorporated (PPI) and can be tank mixed and applied with PPI herbicides. Incorporation of this product should be close to the intended seed planting depth, and no deeper than 3 inches.

For PRE treatments, the 2.56 fl. oz./A rate may be applied and can be tank mixed and applied with PRE herbicides.

#### RESTRICTIONS

For field corn, do not apply more than 0.3 pound active ingredient per acre total per season including PPI, at plant, PRE, and foliar applications of all bifenthrin products.

#### CORN, FIELD (GRAIN AND SILAGE), POPCORN, FIELD CORN GROWN FOR SEED

(FOLIAR USE) [OPTIONAL: (For use in California see 'California Use Directions' section of this label) –OR- (Not for use in California)](For use in California use 'California Use Directions' section of this label) OR (Not for use in California)

		DOSAGE		
PEST	PLACEMENT	Fluid Ounces per	Pounds Active Ingredient per	
1 ES I			Acre	
		(Fl. oz./A)	(Lbs. a.i./A)	
Aphids	Foliar	2.10-6.40	0.03-0.10	
Armyworms (Beet, Fall,				
Southern, True,				
Yellowstriped and other				
species)				
Cereal Leaf Beetles				
Chinch Bugs				
Common Stalk Borers				
Corn Borers, European				
and Southwestern				
Corn Earworms				
Corn Rootworm Adults				
Cucumber Beetle Adults				
Cutworms (Army,				
Western Bean and other				
species)				
Flea Beetles				
Grasshoppers				
Greenbugs				
Japanese Beetle Adults				
Leafhoppers				
Sap Beetles				
Southern Corn Leaf				
Beetles				
Stink Bugs				
Tarnished Plant Bugs				
Thrips				
Webworms				
Mites (Banks Grass,	Foliar	5.12-6.40	0.08-0.10	
Carmine and Twospotted				
Spider)				
Corn Rootworm Larvae	Foliar	5.12-6.4 0	0.08-0.10	
(Northern, Southern and		(Chemigation Use Only)	(Chemigation Use Only)	
Western)				

#### REMARKS

**General:** Apply in a minimum of 2-5 gallons of finished spray per acre by aircraft 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

	CORN, FIELD (GRAIN AND SILAGE), POPCORN, FIELD CORN GROWN FOR SEED							
	(FOLIAR USE) [OPTIONAL: (For use in California see 'California Use Directions' section of this label) -OR- (Not for use in							
l	California)](For use in California see 'California Use Directions' section of this label) OR (Not for use in California)							
	DOSAGE							
	PEST	PLACEMENT	Fluid Ounces per	<b>Pounds Active Ingredient per</b>				
	PESI	PLACEWIENI	Acre	Acre				
			(Fl. oz./A)	(Lbs. a.i./A)				
		FP1 1 .						

of water in the finished spray. Thorough coverage is essential to achieve control.

**To control corn ear-attacking pests:** Apply this product just before silking and repeat as necessary to maintain control. **To control Southwestern Corn Borer and European Corn Borer:** Make initial application for corn borer control at or

shortly before egg hatch and repeat as necessary.

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

#### For control of Mites:

Apply for Banks Grass Mite control when colonies first form prior to leaf damage or discoloration and before dispersal above the bottom third of the plant.

For Two-spotted Spider Mite and Carmine Mite control, apply when colonies first form prior to leaf damage or discoloration and before widespread mite dispersal throughout the canopy.

Higher rates will be necessary for heavier initial populations and corn under heat or drought stress. Field experience with dimethoate at 0.5 lb. active per acre in tank mixture has demonstrated good control under these conditions.

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

**To control Corn Rootworm Larvae by chemigation use only:** Apply at or closely following corn rootworm egg hatch in a minimum of 1 inch irrigation water per acre.

#### RESTRICTIONS

Do not apply more than 0.3 pound active ingredient per acre per season including PRE and PPI, at plant, plus foliar applications.

Do not apply within 30 days of harvest.

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.

CORN, SWEET, SWEET CORN GROWN FOR SEED (AT PLANT USE) [OPTIONAL: (For use in California use 'California Use Directions' section of this label) –OR- (Not for use in California)](For use in California see 'California Use Directions' section of this label) –OR (Not for use in California)

		DOSAGE			
PEST	PLACEMENT	Fluid Ounces per Acre* (Fl. oz./A)	Fluid Ounces per 1000 Row Feet (Fl. oz./1000 Row Ft.)	Pounds Active Ingredient per Acre* (Lbs. a.i./A)	
Armyworms (including True)	At Plant	2.56 - 10.24	0.15 - 0.60	0.04 - 0.16	
Common Stalk Borers					
Cutworms (including Army)					
Grubs					
Seed Corn Beetles					
Seed Corn Maggots					
Wireworms					
Corn Rootworm Larvae	At Plant	5.12 - 12.80	0.30 - 0.74	0.08 - 0.20	
(Northern, Southern and					
Western)					

#### REMARKS

Apply as a 5 to 7 inch T-band over an open furrow, or in-furrow with the seed. For Army Cutworm, Armyworms, Common Stalk Borer, Cutworms, or True Armyworm, apply as a 5 to 7 inch band over the row on the soil surface, a 5 to 7 inch T-band over the open furrow, in-furrow with the seed, or broadcast to the soil surface. \*For 30 inch rows

#### RESTRICTIONS

Do not apply more than 0.2 pound active ingredient per acre per season as an at plant application. For sweet corn, do not apply more than 0.2 pound active ingredient per acre per season including pre-plant incorporated (PPI), at plant, pre-emergence (PRE), and foliar applications of other bifenthrin products.

# CORN, SWEET, SWEET CORN GROWN FOR SEED (PRE & PPI) [OPTIONAL: (For use in California use in California Use Directions' section of this label) –OR- (Not for use in California)](NOT FOR USE IN CALIFORNIA)

		DOSAGE		
PEST	PLACEMENT	Fluid Ounces per Acre (Fl. oz./A)	Pounds Active Ingredient per Acre (Lbs. a.i./A)	
Armyworms	At Plant	3.00 - 4.00	0.05 - 0.06	
Black Cutworms	Pre-Plant Incorporated			
Grape Colaspis	(PPI)			
Seedcorn Maggots				
White Grubs				
Wireworms				
Armyworms	At Plant	2.56	0.04	
Black Cutworms	Pre-Emergence			
Common Stalk Borers	(PRE)			

#### REMARKS

The 3-4 fl. oz./A rate must be pre-plant incorporated (PPI) and can be tank mixed and applied with PPI herbicides. Incorporation of this product should be close to the intended seed planting depth, and no deeper than 3 inches.

For PRE treatments, the 2.56 fl. oz./A rate may be applied and can be tank mixed and applied with PRE herbicides.

#### RESTRICTIONS

Do not apply more than 0.2 pound active ingredient per acre per season including PPI, at plant, PRE, and foliar applications of all bifenthrin products.

#### CORN, SWEET, SWEET CORN GROWN FOR SEED (FOLIAR USE)

[OPTIONAL: (For use in California see 'California Use Directions' section of this label) –OR- (Not for use in California)](For use in California see 'California Use Directions' section of this label) –OR (Not for use in California)

		DOSAGE		
PEST	PLACEMENT	Fluid Ounces per	<b>Pounds Active Ingredient</b>	
		Acre	per Acre	
		(Fl. oz./A)	(Lbs. a.i./A)	
Aphids	Foliar	2.10-6.40	0.03-0.10	
Armyworms (including Beet,				
Fall, Southern, True,				
Yellowstriped)				
Cereal Leaf Beetles				
Chinch Bugs				
Common Stalk Borers				
Corn Earworms				
Corn Rootworm Adults				
Cucumber Beetle Adults				
Cutworms (including Army and				
Western Bean)				
European Corn Borers				
Flea Beetles				

#### CORN, SWEET, SWEET CORN GROWN FOR SEED (FOLIAR USE)

[**OPTIONAL:** (For use in California see 'California Use Directions' section of this label) –OR- (Not for use in California)](For use in California see 'California Use Directions' section of this label) –OR- (Not for use in California))

<del>California)</del>			
Grasshoppers			
Greenbugs			
Japanese Beetle Adults			
Leafhoppers			
Sap Beetles			
Southern Corn Leaf Beetles			
Southwestern Corn Borers			
Stink Bugs			
Thrips			
Tarnished Plant Bugs			
Webworms			
Mites (Banks Grass, Carmine	Foliar	5.12-6.40	0.08-0.10
and Twospotted)			
Corn Rootworm Larvae	Foliar	5.12-6.40	0.08-0.10
(Northern, Southern and		(Chemigation Use	(Chemigation Use Only)
Western)		Only)	

#### REMARKS

**General:** 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.

To control corn ear-attacking pests: Apply this product when silking begins and repeat as necessary to maintain control.

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

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

#### For control of Mites:

Apply for Banks Grass Mite control when colonies first form prior to leaf damage or discoloration and before dispersal above the bottom third of the plant.

For Two-spotted Spider Mite and Carmine Mite control, apply when colonies first form prior to leaf damage or discoloration and before widespread mite dispersal throughout the canopy.

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

**To control Corn Rootworm Larvae by chemigation use only:** Apply at or closely following corn rootworm egg hatch in a minimum of 1 inch of irrigation water per acre.

#### RESTRICTIONS

Do not apply more than 0.2 pound active ingredient per acre per season including PPI, at plant, PRE, and foliar applications of all bifenthrin products.

Do not apply within 1 day of harvest.

Do not graze livestock in treated areas or cut treated crops for feed within 1 day 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.

**COTTON** (FOLIAR USE) [OPTIONAL: (For use in California see 'California Use Directions' section of this label) –OR-(Not for use in California)](For use in California see 'California Use Directions' section of this label) – or (Not for use in California)

		Dosage		
PEST	PLACEMENT	Fluid Ounces per Acre (Fl. oz./A)	Pounds Active Ingredient per Acre (Lbs. a.i./A)	
European Corn Borers Thrips (Soybean (Banded) and Tobacco)	Foliar	1.30-6.40	0.02-0.10	
Armyworms (Fall and	Foliar	2.60-6.40	0.04-0.10	

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Yellowstriped)			
Boll Weevils			
Bollworms			
Cabbage Loopers			
Cotton Aphids			
Cotton Fleahoppers			
Cotton Leafperforators			
Cutworms			
Plant Bugs (Lygus species)			
Saltmarsh Caterpillars			
Southern Garden			
Leafhoppers			
Stink Bugs			
Tobacco Budworms			
Whiteflies			
Beet Armyworms	Foliar	3.80-6.40	0.06-0.10
Lygus species			
Pink Bollworms			
Spider Mites, Carmine and			
Twospotted			

Product 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 this product 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 product at an interval of 3 to 4 days until pest numbers are reduced to acceptable levels.

**To Control Mites and Aphids:** Apply when pests first appear. Repeat as necessary to maintain control. Higher rates will be required once a damaging threshold is established.

#### RESTRICTIONS

Do not apply more than 0.5 pound active ingredient per acre per season.

Do not apply within 14 days of harvest.

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

Do not make more than 10 synthetic pyrethroid applications (of one product or combination of products) to a cotton crop in one growing season. Synthetic pyrethroid products include Ambush<sup>®</sup>, Ammo<sup>®</sup>, Asana<sup>®</sup> XL, Baythroid<sup>®</sup>, Capture<sup>®</sup>, Danitol<sup>®</sup>, Karate<sup>®</sup>, Mustang<sup>®</sup>, Pounce<sup>®</sup> and Scout X-TRA<sup>®</sup>.

#### CUCURBITS (AT PLANT USE)

Chayote (fruit), Chinese waxgourd (Chinese preserving melon), Citron melon, Cucumber, Gherkin, Gourd, edible *Lagenaria* species (includes hyotan, cucuzza), *Luffa* species (includes jicama, Chinese okra), *Momordica* species (includes balsam apple, balsam pear, bitter melon, Chinese cucumber), Muskmelon (hybrids and/or cultivars of *Cucumis melon*) (includes true cantaloupe, cantaloupe, casaba, crenshaw melon, golden pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon, and snake melon), Pumpkin (*Cucurbita* species), Squash, summer (includes crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini), Squash, winter (includes butternut squash, calabaza, hubbard squash (*C. mixta, C. pepo*) includes acorn squash, spaghetti squash), Watermelon (includes hybrids and/or varieties of *Citrullus* species). [OPTIONAL: (For use in California see 'California Use Directions' section of this label) –OR- (Not for use in California)](NOT FOR USE IN CALIFORNIA)

		DOSAGE		
PEST	PLACEMENT	Fluid Ounces per Acre (Fl. oz./A)	Fluid Ounces per 1000 Row Feet (Fl. oz./1000 Row Ft.)	Pounds Active Ingredient per Acre (Lbs. a.i./A)
Armyworms* (including True*) Cutworms* (including Army*) Flea Beetle Larvae Grubs Wireworms	At Plant	2.56 - 5.12	0.15 - 0.3	0.04 - 0.08
Cucumber Beetle Larvae	At Plant	5.12 - 6.40	0.30 - 0.37	0.08 - 0.10

#### REMARKS

For control of Cucumber Beetle Larvae, apply as a 5 to 7 inch T-band over an open furrow, or in-furrow with the seed. For control of Wireworm, Grub, and Flea Beetle Larvae, apply as a 5 to 7 inch T-band over an open furrow, or in-furrow with the seed or transplant. \*For control of Army Cutworm, Cutworms, True Armyworm and Armyworms, apply as a 5 to 7 inch band over the row on the soil surface, a 5 to 7 inch T-band over the open furrow, in-furrow with the seed, broadcast to the soil surface, or banded over the row.

#### RESTRICTIONS

Do not apply more than 0.1 pound active ingredient per acre per season as an at plant application. Do not apply more than 0.3 pound active ingredient per acre per season including at plant plus foliar applications of all bifenthrin products.

#### CUCURBITS (FOLIAR USE)

Chayote (fruit), Chinese waxgourd, (Chinese preserving melon), Citron melon, Cucumber, Gherkin, Gourd, edible, (includes hyotan, cucuzza), (*Luffa* species) (includes jicama, Chinese okra), (*Momordica* species) (includes balsam apple, balsam pear, bitter melon, Chinese cucumber), Muskmelon (hybrids and/or cultivars of *Cucumis melon*) (includes true cantaloupe, cantaloupe, casaba, crenshaw melon, golden pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon, and snake melon), Pumpkin (*Cucurbita* species), Squash, summer (includes crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini), Squash, winter (includes butternut squash, calabaza,hubard squash (*C.mixta; C. pepo*) (includes acorn squash, spaghetti squash), Watermelon (includes hybrids and/or varieties of *Citrullus* species)

		DOSAGE		
PEST	PLACEMENT	Fluid Ounces per Acre (Fl. oz./A)	Pounds Active Ingredient per Acre (Lbs. a.i./A)	
Aphids Armyworms Cabbage Loopers Corn Earworms Cucumber Beetles Cutworms Grasshoppers	Foliar	2.60-6.40	0.04-0.10	

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#### CUCURBITS (FOLIAR USE)

Chayote (fruit), Chinese waxgourd, (Chinese preserving melon), Citron melon, Cucumber, Gherkin, Gourd, edible, (includes hyotan, cucuzza), (*Luffa* species) (includes jicama, Chinese okra), (*Momordica* species) (includes balsam apple, balsam pear, bitter melon, Chinese cucumber), Muskmelon (hybrids and/or cultivars of *Cucumis melon*) (includes true cantaloupe, cantaloupe, casaba, crenshaw melon, golden pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon, and snake melon), Pumpkin (*Cucurbita* species), Squash, summer (includes crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini), Squash, winter (includes butternut squash, calabaza,hubard squash (*C.mixta; C. pepo*) (includes acorn squash, spaghetti squash), Watermelon (includes hybrids and/or varieties of *Citrullus* species)

squash, spagnetti squash), w	atermeton (menudes n	yorids and/or varieties or curations	species)
Leafhoppers			
Melonworms			
Pickleworms			
Plant Bugs (Lygus species)			
Rindworms			
Squash Bugs			
Squash Vine Borers			
Stink Bugs			
Tobacco Budworms			
Mites (Banks Grass,	Foliar	5.12-6.40	0.08-0.10
Twospotted Spider and			
Carmine)			
Plant Bugs (Lygus species)			
Whiteflies			

#### REMARKS

Apply this product 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.

#### RESTRICTIONS

Do not apply more than 0.3 lb. active ingredient per acre per season including at plant plus foliar applications of all bifenthrin products.

Do not make more than two applications after bloom.

Do not make applications less than 7 days apart.

Do not apply within 3 days of harvest.

EGGPLANT (AT PLANT USE)	OPTIONAL: (For use in California see 'California Use Directions' section of
this label) -OR- (Not for use in California	)] <del>(NOT FOR USE IN CALIFORNIA)</del>

		DOSAGE		
PEST	PLACEMENT	Fluid Ounces per Acre (Fl. oz./A)	Fluid Ounces per 1000 Row Feet (Fl. oz./1000 Row Ft.)	Pounds Active Ingredient per Acre (Lbs. a.i./A)
Armyworms* (including	At Plant	2.56 - 5.12	0.15 - 0.3	0.04 - 0.08
True*)				
Cutworms* (including				
Army*)				
Grubs				
Root Maggots				
Wireworms				
Rootworm Larvae	At Plant	5.12 - 6.40	0.30 - 0.37	0.08 - 0.10

#### REMARKS

Apply as a 5 to 7 inch band over the row on the soil surface, a 5 to 7 inch T-band over the open furrow, or infurrow with the seed.

\*Apply broadcast to the soil surface for control of Army Cutworm, Armyworms, Cutworms, or True Armyworm.

#### RESTRICTIONS

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Do not apply more than 0.1 pound active ingredient per acre per season as an at plant application. Do not apply more than 0.2 pound active ingredient per acre per season including at plant plus foliar applications of all bifenthrin products.

#### EGGPLANT, GROUNDCHERRY AND PEPINO (FOLIAR USE) [OPTIONAL: (For use in

<u>California see 'California Use Directions' section of this label) –OR- (Not for use in California)</u> California)

		DOSAGE		
PEST	PLACEMENT	Fluid Ounces per Acre (Fl. oz./A)	Pounds Active Ingredient per Acre (Lbs. a.i./A)	
Armyworms	Foliar	2.10-6.40	0.03-0.10	
Cabbage Loopers				
Colorado Potato Beetles				
Corn Earworms				
Cucumber Beetles				
European Corn Borers				
Flea Beetles				
Plant Bugs (Lygus				
species)				
Stink Bugs				
Thrips				
Tomato Pinworms				
Tomato Hornworms				
Vegetable Leafminers				
Whiteflies				
Mites (Banks Grass,	Foliar	5.12-6.40	0.08-0.10	
Twospotted Spider,				
Carmine and Pacific				
Spider)				
Plant Bugs (Lygus				
species)				

#### REMARKS

Apply this product 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.

#### RESTRICTIONS

Do not make applications less than 7 days apart.

Do not apply more than 0.2 pound active ingredient per acre per season including at plant plus foliar applications of all bifenthrin products.

Do not apply within 7 days of harvest.

**GARDEN BEETS** (FOLIAR USE) [OPTIONAL: (For use in California see 'California Use Directions' section of this label) –OR- (Not for use in California)](Not for use in California)

		DOSAGE		
PEST	PLACEMENT	Fluid Ounces per Acre (Fl. oz./A)	Pounds Active Ingredient per Acre (Lbs. a.i./A)	
Aphids	Foliar	5.12-6.40	0.08-0.10	
Fire Ants				
Flea Beetles				
Lepidopterous larvae				
Spider Mites				
Whiteflies				

Apply foliar treatments in at least 25 gallons per acre.

#### RESTRICTIONS

Do not apply more than 0.4 pound active ingredient per acre per season. Do not make applications less than 7 days apart. Do not apply within 1 days of harvest.

**GRAPES** (FOLIAR USE) [OPTIONAL: (For use in California see 'California Use Directions' section of this label) –OR-(Not for use in California)](Not for Use in California)

		DOSAGE		
PEST	PLACEMENT	Fluid Ounces per Acre (Fl. oz./A)	Pounds Active Ingredient per Acre (Lbs. a.i./A)	
Cutworms Eastern Grape Leafhoppers Grape Berry Moths Japanese Beetle Adults Variegated Leafhoppers Western Grape Leafhoppers	Foliar	3.20 to 6.40	0.05 to 0.10	
Black Vine Weevils Glassywinged Sharpshooters Twospotted Spider Mites	Foliar	6.40	0.10	

#### REMARKS

Apply this product in a minimum of 10 gallons of finished spray per acre by air or in a minimum of 25 gallons per acre with ground equipment. When applying by air, 1 to 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. When pest pressure is moderate to severe, use higher rate within the rate range.

#### RESTRICTIONS

Do not apply more than 0.10 pound active ingredient per acre per season. Do not apply within 30 days of harvest.

## GRASS FORAGE, FODDER AND HAY GROUP AND GRASS GROWN FOR SEED, PASTURE AND RANGELAND (FOLIAR USE)

Including bahiagrass, barnyardgrass, bentgrass, Bermudagrass, Kentucky bluegrass, big bluestem, smooth bromegrass, buffalograss, reed canarygrass, centipedegrass, crabgrass, cupgrass, dallisgrass, sand dropseed, Kentucky fescue, meadow foxtail, eastern gramagrass, side-oats grama, guinea grass, Indian grass, Johnsongrass, lovegrass, napiergrass, oatgrass, orchard grass, pangolagrass, paspalum, redtop, Italian ryegrass, St. Augustine grass, sprangletop, squirreltailgrass, stargrass, switchgrass, timothy, crested wheatgrass, wildrye grass, and zoysia grass. Also included are sudangrass and sorghum forages and their hybrids.

#### NOTE: Use on grasses is limited to the States of Idaho, Oregon and Washington.

		DOSAGE		
PEST	PLACEMENT	Fluid Ounces per Acre (Fl. oz./A)	Pounds Active Ingredient per Acre (Lbs. a.i./A)	
Alfalfa Caterpillar	Foliar	6.40	0.10	
Alfalfa Looper				
Alfalfa Weevil				
Ants				
Aphids* (Blue Alfalfa, Green				
Peach, Pea and Spotted Alfalfa)				
Armyworms (including Fall,				
Southern, True and				
Yellowstriped)				

## GRASS FORAGE, FODDER AND HAY GROUP AND GRASS GROWN FOR SEED, PASTURE AND RANGELAND (FOLIAR USE)

Including bahiagrass, barnyardgrass, bentgrass, Bermudagrass, Kentucky bluegrass, big bluestem, smooth bromegrass, buffalograss, reed canarygrass, centipedegrass, crabgrass, cupgrass, dallisgrass, sand dropseed, Kentucky fescue, meadow foxtail, eastern gramagrass, side-oats grama, guinea grass, Indian grass, Johnsongrass, lovegrass, napiergrass, oatgrass, orchard grass, pangolagrass, paspalum, redtop, Italian ryegrass, St. Augustine grass, sprangletop, squirreltailgrass, stargrass, switchgrass, timothy, crested wheatgrass, wildrye grass, and zoysia grass. Also included are sudangrass and sorghum forages and their hybrids.

Black Grass BugImage: Cereal Leaf BeetlesCereal Leaf BeetlesImage: Chinch BugsChinch BugsImage: Chinch BugsCricketImage: Chinch BugsCutwormsImage: Chinch BugsEgyptian Alfalfa Weevil (larvae and adult)Image: Chinch BugsFlea BeetlesImage: Chinch BugsGrasshoppersImage: Chinch BugsGrass MealybugsImage: Chinch BugsGreen CloverwormImage: Chinch BugsHunting Bill BugsImage: Chinch BugsMeadow SpitlebugImage: Chinch BugsPotato LeafhopperImage: Chinch BugsStink BugsImage: Chinch BugsThreecornered Alfalfa HopperImage: Chinch BugsVelvetbean CaterpillarImage: Chinch BugsWebwormsImage: Chinch BugsStink BugsImage: Chinch Bugs<	NOTE: Use on grasses is limited to the States of Idaho, Oregon and Washington.			
Chinch BugsCricketCutwormsEgyptian Alfalfa Weevil (larvae and adult)Flea BeetlesGrasshoppersGrass MealybugsGreen CloverwormHornwormsHunting Bill BugsMeadow SpittlebugPlant BugsPotato LeafhopperRange CaterpillarStink BugsThreecornered Alfalfa HopperVelvetbean Caterpillar	Black Grass Bug			
CricketCutwormsEgyptian Alfalfa Weevil (larvae and adult)Flea BeetlesGrasshoppersGrass MealybugsGreen CloverwormHornwormsHunting Bill BugsMeadow SpittlebugPlant BugsPotato LeafhopperRange CaterpillarStink BugsThreecornered Alfalfa HopperVelvetbean Caterpillar	Cereal Leaf Beetles			
CutwormsEgyptian Alfalfa Weevil (larvae and adult)Flea BeetlesGrasshoppersGrass MealybugsGreen CloverwormHornwormsHunting Bill BugsMeadow SpittlebugPlant BugsPotato LeafhopperRange CaterpillarStink BugsThreecornered Alfalfa HopperVelvetbean Caterpillar	Chinch Bugs			
Egyptian Alfalfa Weevil (larvae and adult)Flea BeetlesGrasshoppersGrass MealybugsGreen CloverwormHornwormsHunting Bill BugsMeadow SpittlebugPlant BugsPotato LeafhopperRange CaterpillarStink BugsThreecornered Alfalfa HopperVelvetbean Caterpillar	Cricket			
and adult)Flea BeetlesGrasshoppersGrass MealybugsGreen CloverwormHornwormsHunting Bill BugsMeadow SpittlebugPlant BugsPotato LeafhopperRange CaterpillarStink BugsThreecornered Alfalfa HopperVelvetbean Caterpillar	Cutworms			
Flea BeetlesGrasshoppersGrass MealybugsGreen CloverwormHornwormsHunting Bill BugsMeadow SpittlebugPlant BugsPotato LeafhopperRange CaterpillarStink BugsThreecornered Alfalfa HopperVelvetbean Caterpillar	Egyptian Alfalfa Weevil (larvae			
GrasshoppersGrass MealybugsGreen CloverwormHornwormsHonnwormsHunting Bill BugsMeadow SpittlebugPlant BugsPotato LeafhopperRange CaterpillarStink BugsThreecornered Alfalfa HopperVelvetbean Caterpillar	and adult)			
Grass MealybugsGreen CloverwormHornwormsHunting Bill BugsMeadow SpittlebugPlant BugsPotato LeafhopperRange CaterpillarStink BugsThreecornered Alfalfa HopperVelvetbean Caterpillar	Flea Beetles			
Green CloverwormHornwormsHunting Bill BugsMeadow SpittlebugPlant BugsPotato LeafhopperRange CaterpillarStink BugsThreecornered Alfalfa HopperVelvetbean Caterpillar	Grasshoppers			
Hornworms Hunting Bill Bugs Meadow Spittlebug Plant Bugs Potato Leafhopper Range Caterpillar Stink Bugs Threecornered Alfalfa Hopper Velvetbean Caterpillar	Grass Mealybugs			
Hunting Bill Bugs Meadow Spittlebug Plant Bugs Potato Leafhopper Range Caterpillar Stink Bugs Threecornered Alfalfa Hopper Velvetbean Caterpillar	Green Cloverworm			
Meadow SpittlebugPlant BugsPotato LeafhopperRange CaterpillarStink BugsThreecornered Alfalfa HopperVelvetbean Caterpillar				
Plant Bugs       Potato Leafhopper         Potato Leafhopper       Range Caterpillar         Stink Bugs       Threecornered Alfalfa Hopper         Velvetbean Caterpillar       Velvetbean Caterpillar				
Potato LeafhopperRange CaterpillarStink BugsThreecornered Alfalfa HopperVelvetbean Caterpillar	· ·			
Range Caterpillar     Stink Bugs     Threecornered Alfalfa Hopper     Velvetbean Caterpillar	0			
Stink Bugs Threecornered Alfalfa Hopper Velvetbean Caterpillar				
Threecornered Alfalfa Hopper Velvetbean Caterpillar	•			
Velvetbean Caterpillar	-			
Webworms	*			
	Webworms			

#### REMARKS

Apply as insects appear in sufficient volume of water to ensure thorough coverage of foliage. Apply in a minimum of 2 gallons of finished spray per acre by air or 10 gallons per acre by ground. Higher volumes of finished spray may improve insect control under high temperatures, when foliage is dense and/or when insect pressure is high.

#### RESTRICTIONS

Do not apply more than 0.2 pound active ingredient per acre per season.

Do not make applications less than 14 days apart.

Do not apply within 30 days of harvest for forage and hay.

\*Aphid control may be variable depending on species present and host-plant relationships.

PEST		DOSAGE	
	PLACEMENT	Fluid Ounces per Acre (Fl. oz./A)	Pounds Active Ingredient per Acre (Lbs. a.i./A)
Aphids Armyworms Cutworms Leafrollers Loopers	Foliar	3.80-6.40	0.06-0.10
Root Weevils	Foliar	3.20-6.4	0.05-0.10
Twospotted Spider Mites	Foliar	6.40	0.10

#### HOPS (FOLIAR USE)

#### REMARKS

A spray interval of 21 days between applications must be maintained.

**Application by ground:** For best results, full coverage is essential. Early season recommend 100-150 gallons of spray per acre. Late season recommend 200-250 gallons of spray per acre.

For Root Weevil control, make a directed spray to the base of the plant. Spray up the vine 3 feet and the soil surface 1.5 to 2 feet on either side of the plant.

**Application by air for late season control of Twospotted Spider Mites:** Apply no less than 6.4 oz. (0.1 lb. a.i.) per application in a minimum of 10 gallons per acre.

#### RESTRICTIONS

Do not exceed 0.1 pound active ingredient per acre per application. Do not exceed 0.3 pound active ingredient per acre per season. Use of ultra low volume (ULV) application on hops is prohibited.

Do not apply within 14 days of harvest.

#### LEAFY BRASSICAS AND TURNIP GREENS (FOLIAR USE)

Broccoli Raab, Bok Choy, Collards, Kale, Mizuna, Mustard Greens, Mustard Spinach, Rape Greens and Turnip Greens [OPTIONAL: (For use in California see 'California Use Directions' section of this label) –OR- (Not for use in California)](Not for use in California)

PEST		D	OSAGE
	PLACEMENT	Fluid Ounces per Acre (Fl. oz./A)	Pounds Active Ingredient per Acre (Lbs. a.i./A)
Aphids	Foliar	2.10-6.40	0.03-0.10
Armyworms			
Corn Earworm			
Crickets			
Cucumber Beetles			
Cutworms			
Diamondback Moth			
Flea Beetles			
Grasshoppers			
Ground Beetles			
Imported Cabbageworm			
Japanese Beetle (Adult)			
Leafhoppers			
Loopers			
Saltmarsh Caterpillar			
Stink Bugs			
Thrips			
Tobacco Budworm			
Whitefly			
Wireworm (adults)			
Banks Grass Mite	Foliar	5.12-6.40	0.08-0.10
Carmine Mite			
Lygus Spp.			
Pacific Spider Mite			
Two Spotted Spider Mite			

#### LEAFY BRASSICAS AND TURNIP GREENS (FOLIAR USE)

Broccoli Raab, Bok Choy, Collards, Kale, Mizuna, Mustard Greens, Mustard Spinach, Rape Greens and Turnip Greens [OPTIONAL: (For use in California see 'California Use Directions' section of this label) –OR- (Not for use in California)](Not for use in California)

#### REMARKS

Apply with ground equipment using a minimum of 10 gallons of finished spray per acre or a minimum of 2 gallons per acre by aircraft. 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.

#### RESTRICTIONS

Do not exceed 0.4 pound active ingredient per acre per season. Do not make applications less than 7 days apart. Do not apply within 7 days of harvest.

#### LEAFY PETIOLE VEGETABLES (FOLIAR USE)

Celery, Cardoon, Chinese Celery, Celtuce, Florence fennel, Rhubarb, Swiss chard [OPTIONAL: (For use in California see 'California Use Directions' section of this label) –OR- (Not for use in California)] (NOT FOR USE IN CALIFORNIA)

		DOSAGE			
PEST	PLACEMENT	Fluid Ounces per Acre (Fl. oz./A)	Fluid Ounces per 1000 Row Feet (Fl. oz./1000 Row Ft.)	Pounds Active Ingredient per Acre (Lbs. a.i./A)	
Aphids	Foliar	2.56 - 6.40	0.15 - 0.37	0.04 - 0.10	
Cabbageworms					
Corn Earworms					
Crickets					
Cucumber Beetles					
Cutworms					
Diamondback Moths					
Flea Beetles					
Ground Beetles					
Imported Armyworms					
Leafhoppers					
Loopers					
Saltmarsh Caterpillars					
Stink Bugs					
Thrips					
Tobacco Budworms					
Whiteflies					
Wireworm (adults)					
Mites (including	Foliar	5.12 - 6.40	0.30 - 0.37	0.08 - 0.10	
Banks Grass, Carmine,					
Pacific Spider and					
Twospotted Spider)					
Plant Bugs (Lygus					
species)					

#### REMARKS

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

#### RESTRICTIONS

Do not apply more than 0.5 pound active ingredient per acre per season. Do not make applications less than 7 days apart. Do not apply within 7 days of harvest. **LETTUCE, HEAD** (AT PLANT USE) [OPTIONAL: (For use in California see 'California Use Directions' section of this label) –OR- (Not for use in California)](NOT FOR USE IN CALIFORNIA)

			DOSAGE	DOSAGE	
PEST	PLACEMENT	Fluid Ounces per Acre (Fl. oz./A)	Fluid Ounces per 1000 Row Feet (Fl. oz./1000 Row Ft.)	Pounds Active Ingredient per Acre (Lbs. a.i./A)	
Armyworms* (including	At Plant	2.56 - 5.12	0.15 - 0.30	0.04 - 0.08	
True)					
Bulb Mites*					
Cutworms* (including					
Army*)					
Grubs					
Lettuce Root Aphids					
Root Maggots					
Wireworms					
Rootworm Larvae	At Plant	5.12 - 6.40	0.30 - 0.37	0.08 - 0.10	

#### REMARKS

Apply as a 5 to 7 inch band over the row on the soil surface, a 5 to 7 inch T-band over the open furrow, or in-furrow with the seed.

\*Apply broadcast to the soil surface for control of Army Cutworm, Armyworms, Bulb Mites, Cutworms, or True Armyworm.

#### RESTRICTIONS

Do not apply more than 0.1 pound active ingredient per acre per season as an at plant application.

Do not apply more than 0.5 pound active ingredient per acre per season including at plant plus foliar applications of all bifenthrin products.

LETTUCE, HEAD (FOLIAR USE)					
		DOSAGE			
PEST	PLACEMENT	Fluid Ounces per Acre	Pounds Active Ingredient per Acre		
		(Fl. oz./A)	(Lbs. a.i./A)		
Aphids	Foliar	2.10-6.40	0.03-0.10		
Armyworms					
Cabbage Maggots					
Corn Earworms					
Cucumber Beetles					
Cutworms					
Diamondback Moths					
Flea Beetles					
Grasshoppers					
Imported Cabbageworms					
Leafhoppers					
Loopers					
Saltmarsh Caterpillars					
Stink Bug species					
Thrips					
Tobacco Budworms					
Whiteflies					
Mites (Carmine and	Foliar	5.12-6.40	0.08-0.10		
Twospotted Spider)					
Plant Bugs (Lygus					
species)					

Apply this product 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.

#### RESTRICTIONS

Do not make applications less than 7 days apart.

Do not apply more than 0.5 pound active ingredient per acre per season including at plant plus foliar applications of all bifenthrin products.

Do not apply within 7 days of harvest.

MAYHAW (FOLIAR USE) [OPTIONAL: (For use in California see 'California Use Directions' section of this label) -OR- (Not for use in California)](Not for use in California)

		DOSAGE		
PEST	PLACEMENT	Fluid Ounces per Acre (Fl. oz./A)	Pounds Active Ingredient per Acre	
			(Lbs. a.i./A)	
Plum Curculio	Foliar	5.12-6.40	0.08-0.10	

#### REMARKS

Apply foliar treatments in at least 28 gallons per acre.

#### RESTRICTIONS

Do not apply more than 0.2 pound active ingredient per acre per season. Do not make applications less than 7 days apart. Do not apply within 30 days of harvest.

#### **OKRA (AT PLANT USE)**

[OPTIONAL: (For use in California see 'California Use Directions' section of this label) –OR- (Not for use in California)](NOT FOR USE IN CALIFORNIA)

		DOSAGE				
PEST	PLACEMENT	Fluid Ounces per Acre (Fl. oz./A)	Fluid Ounces per 1000 Row Feet (Fl. oz./1000 Row Ft.)	Pounds Active Ingredient per Acre (Lbs. a.i./A)		
Armyworms	At Plant	2.56 - 5.12	0.15 - 0.30	0.04 - 0.08		
Cutworms						
Flea Beetle Larvae						
Wireworms						

#### REMARKS

Apply as a 5-7 inch band over the row on the soil surface, a 5-7 inch T-band over the open seed furrow, in-furrow with the seed or broadcast to the soil surface.

#### RESTRICTIONS

Do not apply more than 0.1 pound active ingredient per acre per season as an at plant application. Do not apply more than 0.2 pound active ingredient per acre per season including at plant plus foliar applications of all bifenthrin products.

 OKRA (FOLIAR USE) [OPTIONAL: (For use in California see 'California Use Directions' section of this label) –OR- (Not for use in California)](Not for use in California)

 PEST
 DOSAGE

 PLACEMENT
 Fluid Ounces per Acre (Fl. oz./A)
 Pounds Active Ingredient per Acre (Lbs. a.i./A)

 Aphids
 Foliar
 2.10-6.40
 0.03-0.10

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OKRA (FOLIAR USE) [OPTIONAL: (For use in California see 'California Use Directions' section of this label) -OR- (Not				
for use in California)](Not for us	<del>e in <b>California</b>)</del>			
Corn Earworm				
Cucumber Beetles				
Cutworms				
European Corn Borer				
Flea Beetles				
Japanese Beetle (Adult)				
Leafminers				
Loopers				
Stink Bugs				
Thrips				
Whitefly				
Broad Mite	Foliar	5.12-6.40	0.08-0.10	
Carmine Mite				
Lygus Spp.				
Two Spotted Spider Mite				
DEMADKS			•	

Apply using sufficient water to obtain uniform coverage. Apply as needed.

Apply with ground equipment using a minimum of 10 gallons of finished spray per acre or a minimum of 2 gallons per acre by aircraft.

#### RESTRICTIONS

Do not exceed 0.2 pound active ingredient per acre per season. Do not make applications less than 7 days apart. Do not apply within 7 days of harvest.

PEANUTS (FOLIAR USE) [OPTIONAL: (For use in California see 'California Use Directions' section of this label) – OR- (Not for use in California)](Not for use in California)

		DOSAGE		
PEST	PLACEMENT	Fluid Ounces per Acre (Fl. oz./A)	Pounds Active Ingredient per Acre (Lbs. a.i./A)	
Armyworms (including Beet, Fall, Southern and Yellowstriped) Corn Earworms Cutworms Grasshoppers Green Cloverworm Leafhoppers Lesser Cornstalk Borer Loopers Rednecked Peanut Worm Southern Corn Rootworm Stink Bugs Threecornered Alfalfa Hopper Velvetbean Caterpillar	Foliar	2.10-6.40	0.03-0.10	
Aphids Spider Mites Thrips	Foliar	5.12-6.40	0.08-0.10	

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Whiteflies			
REMARKS			
Apply this product in a equipment.	a minimum of 2 gallons j	per acre by air or in a minimum of 10	gallons per acre with ground
RESTRICTIONS			
Do not apply more that	n 0.5 pound active ingre	dient per acre per season.	
Do not make applicati	ons less than 14 days apa	art.	
Do not apply within 14	4 days of harvest.		
Do not feed green imn	nature plants and peanut	hay to livestock.	

PEST		DO	SAGE
	PLACEMENT	Fluid Ounces per Acre (Fl. oz./A)	Pounds Active Ingredient per Acre (Lbs. a.i./A)
Aphids Codling Moths Cutworms Green Fruitworms Leafhoppers Leafminers Leafrollers Plant Bugs( <i>Lygus</i> species), (including Tarnished) Plum Curculios San Jose Scale (Crawlers) Stink Bugs	Foliar	2.60-12.80	0.04-0.20
Mites (Twospotted Spider and Yellow)	Foliar	3.80-12.80	0.06-0.20
European Red Mites	Foliar	5.12-12.80	0.08-0.20

**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 per acre by air.

#### RESTRICTIONS

Do not apply more than 0.5 pound active ingredient per acre per season with no more than 0.45 pound active ingredient per acre applied after petal fall.

Apply as necessary to maintain control using a minimum of 30 day spray interval.

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

Do not apply within 14 days of harvest.

#### PEAS AND BEANS (SUCCULENT) (AT PLANT USE)

Pea (*Pisum* spp.): Dwarf pea, Edible-pod pea, English pea, Garden pea, Green pea, Snow pea, Sugar snap pea, Pigeon pea; Bean (*Phaseolus* spp.): Broadbean (succulent), Lima bean (green), Runner bean, Snap bean, Wax bean; Bean, (*Vigna* spp.): Asparagus bean, Blackeyed pea, Chinese longbean, Cowpea, Moth bean, Southern pea, Yardlong bean, Jackbean, Soybean (immature seed), Sword bean. [OPTIONAL: (For use in California see 'California Use Directions' section of this label) –OR- (Not for use in California)](NOT FOR USE IN CALIFORNIA)

			DOSAGE	
PEST	PLACEMENT	Fluid Ounces per Acre (Fl. oz./A)	Fluid Ounces per 1000 Row Feet (Fl. oz./1000 Row Ft.)	Pounds Active Ingredient per Acre (Lbs. a.i./A)
Armyworms*	At Plant	2.56 - 5.12	0.15 - 0.30	0.04 - 0.08
Cutworms*,(including Army*				
and True*)				
Grape Colaspis				
Grubs				
Root Maggots				
Seedcorn Maggots				
Wireworms				
Rootworm larvae	At Plant	5.12 - 6.40	0.30 - 0.37	0.08 - 0.10

#### REMARKS

Apply as a 5 to 7 inch band over the row on the soil surface, a 5 to 7 inch T-band over the open furrow, or in-furrow with the seed.

\*Apply a broadcast treatment to the soil surface for control of Army Cutworm, Armyworms, Cutworms, or True Armyworm.

#### RESTRICTIONS

Do not apply more than 0.1 pound active ingredient per acre per season as an at plant application.

Do not apply more than 0.2 pound active ingredient per acre per season including at plant plus foliar applications of all bifenthrin products.

#### PEAS AND BEANS (SUCCULENT) (FOLIAR USE)

Pea (*Pisum* species): Dwarf pea, Edible-pod pea, English pea, Garden pea, Green pea, Snow pea, Sugar snap pea, Pigeon Pea; Bean (*Phaseolus* species): Broadbean (succulent) Lima bean (green) Runner bean, Snap bean, Wax bean; Bean (*Vigna* species): Asparagus bean, Blackeyed pea, Chinese longbean, Cowpea, Moth bean, Southern pea, Yardlong bean, Jackbean, Soybean (immature seed), Sword bean

		DOSAGE		
PEST	PLACEMENT	Fluid Ounces per Acre (Fl. oz./A)	Pounds Active Ingredient per Acre (Lbs. a.i./A)	
Flea Beetles Grasshoppers Leafhoppers, (including Aster)	Foliar	1.60-6.40	0.025-0.10	
Aphids Armyworms (including Beet, Fall, Southern and Yellowstriped) Bean Leaf Beetles Corn Earworms Corn Rootworm Adults Cloverworms Cucumber Beetles Cutworms (including Western	Foliar	2.10-6.40	0.03-0.10	

Bean)			
European Corn			
Borers			
Japanese Beetle			
Adults			
Loopers			
Pea Leaf Weevils			
Pea Weevils			
Plant Bugs (Lygus			
species)			
Sap Beetles			
Stink Bugs			
Tarnished Plant			
Bugs			
Thrips			
Webworms			
Whiteflies			
Mites (Banks Grass,	Foliar	5.12-6.40	0.08-0.10
Carmine and			
Twospotted)			
Plant Bugs (Lygus			
species)			

Apply this product 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.

#### RESTRICTIONS

Do not apply more than 0.2 pound active ingredient per acre per season including at plant plus foliar applications of all bifenthrin products.

Do not apply within 3 days of harvest.

#### PEAS, DRIED (SEE BEANS, DRIED)

PEPPERS (BELL AND NON-BELL) (AT PLANT USE) [OPTIONAL: (For use in California see
<u>'California Use Directions' section of this label) -OR- (Not for use in California)](NOT FOR USE IN CALIFORNIA)</u>

		DOSAGE		
PEST	PLACEMENT	Fluid Ounces per Acre (Fl. oz./A)	Fluid Ounces per 1000 Row Feet (Fl. oz./1000 Row Ft.)	Pounds Active Ingredient per Acre (Lbs. a.i./A)
Armyworms* (including	At Plant	2.56 - 5.12	0.15 - 0.30	0.04 - 0.08
True*)				
Common Stalk Borer*				
Cutworms*( including				
Army*)				
Flea Beetle Larvae				
Grubs				
Pepper Maggots				
Root Aphids				
Root Maggots				
Wireworms				
Rootworm Larvae	At Plant	5.12 - 6.40	0.30 - 0.37	0.08 - 0.10
REMARKS	1		<u>I</u>	1

#### REMARKS

Apply as a 5 to 7 inch band over the row on the soil surface, a 5 to 7 inch T-band over the open furrow, or in-furrow with the seed.

\*Apply broadcast over the soil surface for control of Army Cutworm, Cutworms, True Armyworm, Armyworms, or

Common Stalk Borer.

#### RESTRICTIONS

Do not apply more than 0.1 pound active ingredient per acre per season as an at plant application. Do not apply more than 0.2 pound active ingredient per acre per season including at plant plus foliar applications of all bifenthrin products.

# **PEPPERS, BELL AND NON-BELL (FOLIAR USE)** [OPTIONAL: (For use in California see 'California Use Directions' section of this label) –OR- (Not for use in California)](For use in California see 'California Use Directions' section of this label) –OR (Not for use in California)

		DOSAGE		
PEST	PLACEMENT	Fluid Ounces per Acre (Fl. oz./A)	Pounds Active Ingredient per Acre (Lbs. a.i./A)	
Aphids	Foliar	2.10-6.40	0.03-0.10	
Armyworms				
Corn Earworms				
Cucumber Beetles				
Cutworms				
European Corn Borers				
Flea Beetles				
Leafhoppers				
Leafminers				
Loopers				
Pepper Weevils				
Stinkbug species				
Thrips				
Tobacco budworms				
Whiteflies				
Mites (Broad, Carmine and	Foliar	5.12-6.40	0.08-0.10	
Twospotted Spider)				
Plant Bugs (Lygus species)				

#### REMARKS

Apply this product using sufficient water to obtain uniform coverage. Apply as needed. Apply with ground equipment using a minimum of 10 gallons of finished spray per acre or a minimum of 2 gallons per acre by aircraft.

#### RESTRICTIONS

Do not make applications less than 7 days apart.

Do not apply more than 0.2 pound active ingredient per acre per season including at plant plus foliar applications of all bifenthrin products.

Do not apply within 7 days of harvest.

#### ROOT CROPS EXCEPT SUGAR BEETS (FOLIAR USE) (Not for use in California)

Burdock (edible), Carrot, Celeriac, Chervil (turnip rooted), Chicory, Ginseng, Horseradish, Parsley (turnip rooted), Parsnip, Radish, Radish (oriental), Rutabaga, Salsify, Salsify (black), Salsify (Spanish), Skirret and Turnip [OPTIONAL: (For use in California use 'California Use Directions' section of this label) –OR- (Not for use in California)]

		DOSAGE		
PEST	PLACEMENT	Fluid Ounces per Acre (Fl. oz./A)	Pounds Active Ingredient per Acre (Lbs. a.i./A)	
Aphids	Foliar	5.12-6.40	0.08-0.10	
Armyworms (including Beet,				
Fall, Southern and				
Yellowstriped)				
Celery Leaftier				
Corn Earworms				
Cross-striped Cabbageworm				
Cutworms				

Diamondback Moth			
European Corn Borers			
Fire Ants			
Flea Beetles			
Green Cloverworm			
Hornworms			
Imported Cabbageworm			
Loopers			
Spider Mites			
Tobacco budworms			
Velvetbean Caterpillar			
Whiteflies			
REMARKS			
Apply foliar treatments in at 1	east 25 gallons per acre.		
	-		
RESTRICTIONS			
Do not apply more than 0.5 p	ound active ingredient per ac	re per season	

Do not apply more than 0.5 pound active ingredient per acre per season. Do not make applications less than 7 days apart. Do not apply within 21 days of harvest.

**SOYBEANS (AT PLANT USE)** [OPTIONAL: (For use in California see 'California Use Directions' section of this label) –OR- (Not for use in California)](NOT FOR USE IN CALIFORNIA)

		DOSAGE			
PEST	PLACEMENT	Fluid Ounces per Acre (Fl. oz./A)	Fluid Ounces per 1000 Row Feet (Fl. oz./1000 Row Ft.)	Pounds Active Ingredient per Acre (Lbs. a.i./A)	
Armyworms*(	At Plant	2.56 - 5.12	0.15 - 0.30	0.04 - 0.08	
including True*)					
Cutworms*( including					
Army*)					
Grape Colaspis					
Grubs					
Root Maggots					
Seedcorn Maggots					
Wireworms					
Rootworm Larvae	At Plant	5.12 - 6.40	0.30 - 0.37	0.08 - 0.10	

#### REMARKS

Apply as a 5 to 7 inch band over the row on the soil surface, a 5 to 7 inch T-band over the open furrow, or in-furrow with the seed.

\*For control of Army Cutworm, Armyworms, Cutworms, or True Armyworm, apply as a broadcast treatment to the soil surface.

#### RESTRICTIONS

Do not apply more than 0.1 pound active ingredient per acre per season as an at plant application. Do not apply more than 0.2 pound active ingredient per acre per season including at plant plus foliar applications of all bifenthrin products.

<b>SOYBEANS (PPI &amp; PRE)</b> [OPTIONAL: (For use in California see 'California Use Directions' section of this label) –OR- (Not for use in California)](NOT FOR USE IN CALIFORNIA)				
		DOSAGE		
PEST	PLACEMENT	Fluid Ounces per Acre (Fl. oz./A)	Pounds Active Ingredient per Acre (Lbs. a.i./A)	
Armyworms Black Cutworms	At Plant Pre-Plant Incorporated	3.00 - 4.00	0.05 - 0.06	

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Seedcorn Maggots	(PPI)		
White Grubs			
Wireworms			
Armyworms	At Plant	2.56	0.04
Black Cutworms	Pre-Emergence		
Common Stalk Borers	(PRE)		

The 3-4 fluid ounces per acre rate must be pre-plant incorporated (PPI) and can be tank mixed and applied with PPI herbicides. Incorporation of this product should be close to the intended seed planting depth, and no deeper than 3 inches.

For PRE treatments, the 2.56 fluid ounces per acre rate may be applied and can be tank mixed and applied with PRE herbicides.

#### RESTRICTIONS

Do not apply more than 0.1 pound active ingredient per acre per season as PPI or PRE application.

Do not apply more than 0.2 pound active ingredient per acre per season including at plant plus foliar applications of all bifenthrin products.

		DOSAGE		
PEST	PLACEMENT	Fluid Ounces per Acre (Fl. oz./A)	Pounds Active Ingredient per Acre (Lbs. a.i./A)	
Alfalfa Caterpillars	Foliar	2.10 to 6.40	0.03 to 0.10	
Aphids				
Armyworms (Beet*, Fall,				
Southern and				
Yellowstriped)				
Aster Leafhoppers				
Bean Leaf Beetles				
Cloverworms				
Corn Earworms				
Corn Rootworm Adults				
Cucumber Beetles				
Cutworms (including Western				
Bean)				
European Corn Borers				
Flea Beetles				
Grasshoppers				
Imported Cabbageworms				
Japanese Beetle Adults				
Leafhoppers				
Leafminers				
Loopers				
Mexican Bean Beetle Adults				
Pea Leaf Weevils				
Pea Weevils				
Plant Bugs (Lygus species)				
(including Tarnished)				
Saltmarsh Caterpillars				
Sap Beetles				
Stink Bugs				
Thrips				
Tobacco Budworms*				
Webworms				
Whiteflies				
Plant Bugs (Lygus species)	Foliar	5.12 to 6.40	0.08 to 0.10	

Twospotted Spider Mites Whiteflies			
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Apply in a minimum of 10 gallons per acre with ground equipment or 2 gallons per acre by aircraft at a minimum of 30 day intervals.

\*Pyrethroid resistance is common for Beet Armyworm and Tobacco Budworm.

Please consult your local or state agricultural authority to determine if resistant pest populations are in your area. If so, refer to the resistance management statement in the DIRECTIONS FOR USE section of this label.

#### RESTRICTIONS

Do not apply more than 0.2 pound active ingredient per acre per season including at plant plus foliar applications of all bifenthrin products.

Do not apply within 18 days of harvest.

**SPINACH** (AT PLANT) [OPTIONAL: (For use in California see 'California Use Directions' section of this label) –OR- (Not for use in California)](NOT FOR USE IN CALIFORNIA)

		DOSAGE			
PEST	PLACEMENT	Fluid Ounces per Acre (Fl. oz./A)	Fluid Ounces per 1000 Row Feet (Fl. oz./1000 Row Ft.)	Pounds Active Ingredient per Acre (Lbs. a.i./A)	
Armyworms	At Plant	2.56 - 5.12	0.15 - 0.30	0.04 - 0.08	
(including True)					
Cutworms (including					
Army)					
Grubs					
Root Maggots					
Seedcorn Maggots					
Wireworms					
Rootworm Larvae	At Plant	5.12 - 6.40	0.30 - 0.37	0.08 - 0.10	

#### REMARKS

Apply as a 5 to 7 inch band over the row on the soil surface, a 5 to 7 inch T-band over the open furrow, or infurrow with the seed.

\*Apply a broadcast treatment to the soil surface for control of Army Cutworm, Armyworms, Cutworms, or True Armyworm.

#### RESTRICTIONS

Do not apply more than 0.1 pound active ingredient per acre per season as an at plant application. Do not apply more than 0.4 pound active ingredient per acre per season including at plant plus foliar applications of all bifenthrin products.

SPINACH (FOLIAR USE)					
		DOS	AGE		
PEST	PLACEMENT	Fluid Ounces per Acre (Fl. oz./A)	Pounds Active Ingredient per Acre (Lbs. a.i./A)		

Armyworms	Foliar	2.10 - 6.40	0.03 - 0.10
Colorado Potato Beetles			
Corn earworms			
Cucumber Beetles			
Cutworms			
European Corn Borers			
Flea Beetles			
Leafminers			
Loopers			
Pepper Weevils			
Tomato Hornworms			
Tomato Pinworms			
Thrips			
Whiteflies			
Fire Ants	Foliar	5.12 - 6.40	0.08 - 0.10
Mites (Banks Grass, Broad,			
Carmine, Pacific Spider and			
Twospotted Spider)			
Plant bugs (Lygus species)			

For control of whiteflies, apply foliar treatments of product by ground or air at rates of up to 0.4 pint (0.1 pound active ingredient) per acre at minimum 7-day intervals up to a maximum of 4 applications.

For control of fire ants, apply product to the soil (at planting) or as a foliar treatment by ground or air at rates of up to 0.4 pint (0.1 pound active ingredient) per acre at minimum 7-day intervals up to a maximum of 4 applications. Apply the specified dosage in 5-50 gallons of finished spray per acre by air or 10-50 gallons of finished spray per acre by ground.

#### RESTRICTIONS

Do not make applications less than 7 days apart.

Do not apply more than 0.4 pound active ingredient per acre per season including at plant plus foliar applications of all bifenthrin products.

Do not apply within 40 days of harvest.

#### TOBACCO (PRE-TRANSPLANT & AT-TRANSPLANT)

[OPTIONAL: (For use in California see 'California Use Directions' section of this label) –OR- (Not for use in California)](NOT FOR USE IN CALIFORNIA)

		DOSAGE			
PEST	PLACEMENT	Fluid Ounces per Acre (Fl. oz./A)	Fluid Ounces per 1000 Row Feet (Fl. oz./1000 Row Ft.)	Pounds Active Ingredient per Acre (Lbs. a.i./A)	
Armyworm species	Pre-Transplant and	2.56 - 6.40	0.15 - 0.37	0.04 - 0.10	
Cutworm species	At-Transplant				
Flea Beetle Larvae	-				
Mole Crickets					
Stalkborers					
White Grubs					
Wireworms					

#### REMARKS

Pre-transplant soil applications: Use of suitable equipment to incorporate into the top 4 inches of the soil is required to control below ground pests.

At-transplant water treatment application: Apply 0.06 to 0.1 pound active ingredient per acre in a water treatment application volume of 10 to 200 gallons per acre.

#### RESTRICTIONS

Do not apply more than 0.2 pound active ingredient per acre per season. Do not apply later than lay-by.

TOBACCO (FOLIAR USE) [OPTIONAL: (For use in California see 'California Use Directions'	section of this
label) –OR- (Not for use in California)](NOT FOR USE IN CALIFORNIA)	

<u>Iabel) – OR- (Not for use in California)</u> (NOT POR USE IN CALIFORNIA)						
		DOSAGE				
PEST	PLACEMENT	Fluid Ounces per Acre (Fl. oz./A)	Fluid Ounces per 1000 Row Feet (Fl. oz./1000 Row Ft.)	Pounds Active Ingredient per Acre (Lbs. a.i./A)		
Aphid species Armyworm species Chinch Bugs Cutworm species Flea Beetle (Adults) Grasshoppers Green Bugs Japanese Beetles Stink Bugs Thrips Whiteflies Tarnished Plant Bugs	Foliar	2.56 - 6.40	0.15 - 0.37	0.04 - 0.10		
Hornworms Tobacco Budworms	Foliar	5.12 - 6.40	0.30 - 0.37	0.08 - 0.10		
Spider Mites Plant Bugs ( <i>Lygus</i> species)	Foliar	6.40	0.37	0.01		

Apply 0.04 to 0.10 pound active ingredient per acre per foliar application up to, and including, lay-by in a minimum of 10 gallons of water per acre

#### RESTRICTIONS

Do not apply more than 0.2 pound active ingredient per acre per season. Do not make more than 2 foliar applications per season.

Do not apply later than lay-by.

May be tank mixed with herbicides approved for tobacco use.

\*See resistance statement under "Directions for Use".

TOMATOES (AT PLANT USE) [OPTIONAL: (For use in California see 'California Use Directions' section of this							
label) -OR- (Not for use in C	label) –OR- (Not for use in California)](NOT FOR USE IN CALIFORNIA)						
		DOSAGE					
PEST	PLACEMENT	Fluid Ounces per Acre (Fl. oz./A)	Fluid Ounces per 1000 Row Feet (Fl. oz./1000 Row Ft.)	Pounds Active Ingredient per Acre (Lbs. a.i./A)			
Armyworms*	At Plant	2.56 - 5.12	0.15 - 0.30	0.04 - 0.08			
(including True*)							
Common Stalk Borers*							
Cutworms* (including							
Army*)							
Flea Beetle Larvae							
Grubs							
Root Maggots							
Wireworms							
Rootworm larvae	At Plant	5.12 - 6.40	0.30 - 0.37	0.08 - 0.10			

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Apply as a 5 to 7 inch band over the row on the soil surface, a 5 to 7 inch T-band over the open furrow, or in-furrow with the seed.

\*Apply a broadcast treatment to the soil surface for control of Army Cutworm, Armyworms, Common Stalk Borer, Cutworms, or True Armyworm.

#### RESTRICTIONS

Do not apply more than 0.1 pound active ingredient per acre per season as an at plant application. Do not apply more than 0.32 pound active ingredient per acre per season including at plant plus foliar applications of all bifenthrin products.

#### TOMATOES AND TOMATILLO (FOLIAR USE)

		DOSAGE		
PEST	PLACEMENT	Fluid Ounces per Acre (Fl. oz./A)	Pounds Active Ingredient per Acre (Lbs. a.i./A)	
Aphids	Foliar	2.10 - 5.20	0.03 - 0.08	
Armyworms including Beet,				
Fall, and Southern				
Yellowstriped)				
Bean Leaf Beetles				
Cabbageworms				
Cloverworms				
Corn Earworms				
Corn Rootworms				
Cucumber Beetles				
Cutworms				
Diamondback Moths				
European Corn Borers				
Flea Beetles				
Flea Hoppers				
Grasshoppers				
Japanese Beetle (adults)				
Leafhoppers				
Loopers				
Melonworms				
Mites (including Carmine)				
Pea Weevils				
Pea Leaf Weevils				
Pickleworms				
Plant Bugs (Lygus species)				
Rindworms				
Salt Marsh Caterpillars				
Sap Beetles				
Seedpod Weevils				
Squash Bugs				
Stink Bug species				
Tarnished Plant Bugs				
Tobacco Budworms				
Thrips				
Whiteflies				
Twospotted Spider Mite	Foliar	5.12-6.4	0.08-0.1	

#### TOMATOES AND TOMATILLO (FOLIAR USE)

#### REMARKS

Apply in water as necessary for insect control using a minimum of 15 gallons of finished spray per acre with ground equipment.

Thorough coverage is essential to achieve control.

#### RESTRICTIONS

Do not make applications less than 10 days apart.

Do not apply more than 0.4 pound active ingredient per acre per season including at plant plus foliar applications of all bifenthrin products.

Do not apply within 1 day of harvest.

#### TREE NUTS (FOLIAR USE) (Not for use in California)

Almond, Beech nut, Brazil nut, Butternut, Cashew, Chestnut, Chiquapin, Filbert (hazelnut), Hickory nut, Macadamia nut (bush nut), Pecan and Pistachio

[OPTIONAL: (For use in California see 'California Use Directions' section of this label) –OR- (Not for use in California)]

		DOSAGE			
PEST	PLACEMENT	Fluid Ounces per Acre (Fl. oz./A)	Pounds Active Ingredient per Acre (Lbs. a.i./A)		
Aphids (including Black Pecan,	Foliar	3.2-12.8	0.05-0.2		
Walnut and Yellow Pecan)					
Codling Moth					
Filbert Worm					
Hickory Shuckworm					
Leaffooted Bugs					
Navel Orangeworm					
Oblique Banded Leafroller					
Peach Twig Borer					
Pecan Leaf Casebearer					
Pecan Nut Casebearer					
Pecan Phylloxera					
Plant Bugs (Lygus species)					
Stink Bugs					
European Red Mite	Foliar	5.1-12.8	0.08-0.2		
Pecan Weevil					
Spider Mites					
Fire Ants	Foliar	6.4-12.8	0.1-0.2		
Walnut Husk Fly					

#### REMARKS

Apply by ground or air equipment using sufficient water to obtain full coverage of foliage. Apply as a dilute (minimum of 200 gallons of finished spray per acre) or concentrate (minimum of 50 gallons of finished spray per acre) by ground or apply the specified amount in a minimum of 10 gallons of finished spray per acre by air.

#### RESTRICTIONS

Do not apply more than 0.5 pound active ingredient per acre per season.

Do not make applications less than 15 days apart.

Do not apply within 21 days of harvest for pecans and 7 days for all other registered tree nut crops. Do not graze livestock in treated orchards or cut treated cover crops for feed.

#### TUBEROUS AND CORM VEGETABLES (AT PLANT USE)

Potato, Sweet potato, Arracacha, Arrowroot, Chinese artichoke, Jerusalem artichoke, Edible canna, Cassava (bitter and sweet), Chayote (root), Chufa, Dasheen (taro), Ginger, Leren, Tanier, Turmer, Yam bean, True yam. [OPTIONAL: (For use in California see 'California Use Directions' section of this label) –OR- (Not for use in California)](NOT FOR USE IN CALIFORNIA)

	DOSAGE		
PLACEMENT	Fluid Ounces per	<b>Pounds Active Ingredient</b>	
	Acre	per Acre	
	(Fl. oz./A)	(Lbs. a.i./A)	
At Plant	9.60 - 19.20	0.15 - 0.30	
		PLACEMENT Fluid Ounces per Acre (Fl. oz./A)	

#### REMARKS

Apply as a soil incorporated broadcast, directed bed spray or a T-band spray into the planting furrow. Apply at the rate of 0.15 to 0.3 pound active ingredient (9.6 to 19.2 fl. oz./A) in a minimum of 10 gallons per acre of spray.

#### RESTRICTIONS

Do not apply more than 0.3 pound active ingredient per acre per season as an at plant application. Do not apply more than 0.5 pound active ingredient per acre per season including at plant plus foliar applications of all bifenthrin products.

#### TUBEROUS AND CORM VEGETABLES (LAY-BY)

Potato, Sweet potato, Arracacha, Arrowroot, Chinese artichoke, Jerusalem artichoke, Edible canna, Cassava (bitter and sweet), Chayote (root), Chufa, Dasheen (taro), Ginger, Leren, Tanier, Turmer, Yam bean, True yam. [OPTIONAL: (For use in California see 'California Use Directions' section of this label) –OR- (Not for use in California)](NOT FOR USE IN CALIFORNIA)

		DOSAGE		
PEST	PLACEMENT	Fluid Ounces per Acre	Pounds Active Ingredient per Acre	
		(Fl. oz./A)	(Lbs. a.i./A)	
Grape Colaspis Rootworms	Lay-By	9.60 - 19.20	0.15 - 0.30	
White Grubs				
Wireworms				

#### REMARKS

Apply as one or more soil-directed and incorporated treatments at cultivation or lay-by. Make applications to the drill area and incorporate by cultivation equipment set to throw soil towards the drill area. Apply at a rate of 0.15 to 0.3 pound active ingredient (9.6 to 19.2 fluid ounces) per acre in a minimum spray volume of 10 gallons per acre.

#### RESTRICTIONS

Do not apply more than 0.5 pound active ingredient per acre per season including soil plus foliar applications of all bifenthrin products.

#### TUBEROUS AND CORM VEGETABLES (FOLIAR USE)

Potato, Sweet Potato, Arracacha, Arrowroot, Chinese Artichoke, Jerusalem Artichoke, Edible Canna, Cassava (Bitter and Sweet), Chayobs (Root), Chufa, Dasheen (Taro), Ginger, Laren, Tanier, Turner, Yam Bean, True Yam **[OPTIONAL:** (For use in California see 'California Use Directions' section of this label) –OR- (Not for use in California)] (Not for use in California)

		DOSAGE		
PEST	PLACEMENT	Fluid Ounces per Acre (Fl. oz./A)	Pounds Active Ingredient per Acre	
		(1102011)	(Lbs. a.i./A)	
Banded Cucumber Beetles Black Flea Beetles	Foliar	2.10 to 6.40	0.03 to 0.10	

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Cucumber Beetles		
Japanese Beetle Grubs		
June Beetles		
Rootworms		
Sugarcane Beetles		
Sweetpotato Flea Beetles		
Sweetpotato Weevils		
White Grubs		
Whitefringed Beetles		
Wireworms (including		
Corn, Southern Potato and		
Tobacco)		

2016bifenthrin may be applied as a foliar spray for the control of the adult life stages of flea beetles, click beetles (wireworms), cucumber beetles (rootworms), white fringed beetles and May/June beetles (white grubs). Apply 2016bifenthrin at the rate of 0.033 to 0.1 pound active ingredient (2.1 to 6.4 fluid ounces formulated product) per acre in a minimum of 10 gallons per acre by ground and 3 gallons per acre by air.

#### RESTRICTIONS

Do not make more than 2 foliar applications per season no sooner than 21 days apart. Do not apply more than 0.5 pound active ingredient per acre per season including at plant plus foliar applications of all bifenthrin products.

Do not apply within 21 days of harvest.

#### TURNIP GREENS (SEE LEAFY BRASSICAS)

### **California Use Directions**

#### **Special Equipment**

The registration of this product in California requires that the product be used in closed systems that meet the criteria for closed systems as established by the California Department of Food and Agriculture. The criteria and a list of the closed systems meeting the criteria are available through the California Department of Food and Agriculture.

#### BRASSICAS, HEAD AND STEM (FOLIAR USE)

Head and Stem Brassica Vegetables including: Broccoli, Chinese Broccoli (gai lon, white flowering broccoli), Brussels Sprouts, Cauliflower, Cavalo broccoli, Kohlrabi, Cabbage, Chinese Cabbage (napa)

		DOSAGE		
PEST	PLACEMENT	Fluid Ounces per Acre (Fl. oz./A)	Pounds Active Ingredient per Acre (Lbs. a.i./A)	

<b>BRASSICAS, HEAD</b>	BRASSICAS, HEAD AND STEM (FOLIAR USE)					
Head and Stem Brassica Ve	Head and Stem Brassica Vegetables including: Broccoli, Chinese Broccoli (gai lon, white flowering broccoli),					
Brussels Sprouts, Cauliflow	ver, Cavalo broccoli, K	cohlrabi, Cabbage, Chinese Cabbage	e (napa)			
Armyworms	Foliar	2.10-6.40	0.03-0.10			
Cutworms						
Corn Earworms						
Crickets						
Diamondback Moths						
Flea Beetles						
Imported Cabbageworms						
Loopers						
Saltmarsh Caterpillars						
Whiteflies						
Plant Bugs (Lygus	Foliar	5.12-6.40	0.08-0.10			
species)						

Apply this product 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.

#### RESTRICTIONS

Do not apply more than 0.5 pound active ingredient (1 quart) per acre per season.

Do not make more than 5 applications after bloom.

Do not make applications less than 7 days apart.

Do not apply within 7 days of harvest.

#### **CANEBERRIES** (FOLIAR USE)

Caneberries including: Blackberries, Bingleberries, Dewberries, Lowberries, Marionberries, Olallieberries, Youngberries, Loganberries, Raspberries

		DOS	AGE
PEST	PLACEMENT	Fluid Ounces per Acre (Fl. oz./A)	Pounds Active Ingredient per Acre (Lbs. a.i./A)
Leafrollers Orange Tortrix Root Weevils	Foliar	3.20-6.40	0.05-0.10
Spider Mites	Foliar	6.40	0.10

#### REMARKS

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

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

#### RESTRICTIONS

Do not apply within 3 days of harvest.

Do not apply within 4 days of harvest for caneberries that are hand-harvested.

# CORN, FIELD (GRAIN AND SILAGE), FIELD CORN GROWN FOR SEED, POPCORN (AT PLANT USE)

		DOSAGE		
PEST	PLACEMENT	Fluid Ounces per Acre* (Fl. oz./A)	Fluid Ounces per 1000 Row Feet (Fl. oz./1000 Row Ft.)	Pounds Active Ingredient per Acre* (Lbs. a.i./A)
Armyworm species (including	At Plant	2.56 - 5.12	0.15 - 0.30	0.04 - 0.08
True)				
Cutworm species				
Grubs				
Seed Corn Beetles				
Seed Corn Maggots				
Wireworms				
Western Corn Rootworm	At Plant	5.12	0.30	0.08
Larvae				

#### REMARKS

Apply as a 5 to 7 inch T-band treatment over an open seed furrow. Position the spray nozzle behind the planter shoe, in front of the press wheel centered over the row. Use the table below to determine the product needs per acre. Apply in a minimum of 3 gallons of finished spray per acre. Mix product with water or fertilizer in the following manner. Fill the spray tank approximately one-half full with water or liquid fertilizer, add the proper amount of product, then add the rest of the water or fertilizer. Provide sufficient agitation during mixing and application to maintain a uniform spray mixture.

Applications of this product alone or in recommended tank mixtures, in conjunction with in furrow pop-up fertilizers may be used. A jar compatibility test should be performed with appropriate ratio of product and fertilizer to ensure mixture will stay in solution. Constant agitation should be maintained during mixing and application.

#### RESTRICTIONS

Do not apply within 30 days of harvest.

Do not graze livestock in treated area or cut treated crops for feed within 30 days of treatment.

Do not apply more than 0.1 pound active ingredient per acre per season as an at plant application.

# CORN, FIELD (GRAIN AND SILAGE), POPCORN, FIELD CORN GROWN FOR SEED (FOLIAR USE)

		DOSAGE		
PEST	PLACEMENT	Fluid Ounces per Acre (Fl. oz./A)	Pounds Active Ingredient per Acre (Lbs. a.i./A)	
Aphids Armyworm species (including Beet, Fall, True and Yellowstriped) Chinch Bugs Corn Earworms Corn Rootworm Adults Cucumber Beetle Adults Cutworm Species Flea Beetles Grasshoppers Greenbugs Leafhoppers Stinkbugs Thrips Webworms	Foliar	2.10-6.40	0.03-0.10	
Mites (Banks Grass, Carmine and Twospotted	Foliar	5.12-6.40	0.08-0.10	

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Spider)			
Western Corn Rootworm	Foliar	5.12 - 6.40	0.08010
Larvae		(Chemigation Only)	(Chemigation Only)

**General:** Apply in a minimum of 2-5 gallons of finished spray per acre by aircraft 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 this product just before silking and repeat as necessary to maintain control. **For control of other insect pests:** Apply when pests first appear and repeat as necessary.

#### For control of Mites:

Apply for Banks Grass Mite control when colonies first form prior to leaf damage or discoloration and before dispersal above the bottom third of the plant.

For Two-spotted Spider Mite and Carmine Mite control, apply when colonies first form prior to leaf damage or discoloration and before widespread mite dispersal throughout the canopy.

Higher rates will be necessary for heavier initial populations and corn under heat or drought stress. Field experience with dimethoate at 0.5 pound active per acre in tank mixture has demonstrated good control under these conditions. **To control Western Corn Rootworm Larvae by Chemigation use only:** Apply at or closely following corn

rootworm egg hatch in a minimum of 1 inch irrigation water per acre.

#### RESTRICTIONS

Do not apply more than 0.2 pound active ingredient per acre per season.

Do not apply within 30 days of harvest.

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.

CORN, SWEET & SWEET CORN GROWN FOR SEED (AT PLANT USE)				
		DOSAGE		
PEST	PLACEMENT	Fluid Ounces per Acre* (Fl. oz./A)	Fluid Ounces per 1000 Row Feet (Fl. oz./1000 Row Ft.)	Pounds Active Ingredient per Acre* (Lbs. a.i./A)
Armyworm species (including True) Cutworm species Grubs Seed Corn Maggots Wireworms	At Plant	2.56 - 5.12	0.15 - 0.30	0.04 - 0.08
Western Corn Rootworm Larvae	At Plant	5.12	0.30	0.08

#### REMARKS

Apply as a 5 to 7 inch T-band treatment over an open seed furrow. Position the spray nozzle behind the planter shoe, in front of the press wheel centered over the row. Use the table above to determine the product needs per acre. Apply in a minimum of 3 gallons of finished spray per acre. Mix this product with water or fertilizer in the following manner. Fill the spray tank approximately one-half full with water or liquid fertilizer, add the proper amount of product, then add the rest of the water or fertilizer. Provide sufficient agitation during mixing and application to maintain a uniform spray mixture. Applications of product alone or in recommended tank mixtures, in conjunction with in furrow pop-up fertilizers may be used. A jar compatibility test should be performed with appropriate ratio of product and fertilizer to ensure mixture will stay in solution. Constant agitation should be maintained during mixing and application.

#### RESTRICTIONS

Do not apply within 30 days of harvest.

Do not graze livestock in treated area or cut treated crops for feed within 30 days of treatment. **Do not apply more than 0.1 pound active per acre per season as an at plant application.** 

CORN, SWEET & SWEET CORN GROWN FOR SEED (FOLIAR USE)				
		DOS	AGE	
PEST	PLACEMENT	Fluid Ounces per Acre (Fl. oz./A)	Pounds Active Ingredient per Acre (Lbs. a.i./A)	
Aphids Armyworm species (including Beet, Fall, True, Yellowstriped) Chinch Bugs Corn Earworms Corn Rootworm Adults Cucumber Beetle Adults Cutworm Species (including Army) Flea Beetles Grasshoppers Greenbugs Leafhoppers Stinkbugs Thrips Webworms	Foliar	2.10-6.40	0.03-0.10	
Mites (Banks Grass, Carmine, Pacific Spider and Twospotted Spider)	Foliar	5.12-6.40	0.08-0.10	
Western Corn Rootworm Larvae	Foliar	5.12- 6.40 (Chemigation Only)	0.08010 (Chemigation Only)	

General: 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.

To control ear-attacking pests: Apply this product when silking begins and repeat as necessary to maintain control.

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

#### For control of Mites:

Apply for Banks Grass Mite control when colonies first form prior to leaf damage or discoloration and before dispersal above the bottom third of the plant.

For Two-spotted Spider Mite and Carmine Mite control, apply when colonies first form prior to leaf damage or discoloration and before widespread mite dispersal throughout the canopy.

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

To control Western Corn Rootworm Larvae by Chemigation use only: Apply at or closely following corn rootworm egg hatch in a minimum of 1 inch of irrigation water per acre.

#### RESTRICTIONS

Do not apply more than 0.2 pound active ingredient (12.8 fluid ounces formulated product) per acre per season. Do not apply within one day of harvest.

Do not apply within 18 days of harvest for sweet corn that is hand-harvested.

Do not graze livestock in treated areas or cut treated crops for feed within 1 day 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.

		Dosage		
PEST	PLACEMENT	Fluid Ounces per Acre	Pounds Active Ingredient per Acre	
		(Fl. oz./A)	(Lbs. a.i./A)	
European Corn Borers	Foliar	1.30-6.40	0.02-0.10	
Soybean (Banded) Thrips				
Tobacco Thrips				
Armyworms (Fall and	Foliar	2.60-6.40	0.04-0.10	
Yellowstriped)				
Boll Weevils				
Bollworms				
Cabbage Loopers				
Cotton Aphids				
Cotton Fleahoppers				
Cotton Leafperforators				
Cutworms				
Plant Bugs (Lygus species)				
Saltmarsh Caterpillars				
Southern Garden				
Leafhoppers				
Stink Bugs				
Tobacco Budworms				
Whiteflies				
Beet Armyworms	Foliar	3.80-6.40	0.06-0.10	
Mites (Carmine Spider and				
Twospotted Spider)				
Pink Bollworms				
DEMADIZO				

Product 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 1 quart of water in the finished spray.

To control Boll Weevil: Apply this product at an interval of 3 to 4 days until pest numbers are reduced to acceptable levels.

**To control Mites and Aphids:** Apply when pests first appear. Repeat as necessary to maintain control. Higher rates will be required once a damaging threshold is established.

#### RESTRICTIONS

Do not apply more than 0.3 pound active ingredient per acre per season.

Do not make more than 3 applications per season.

Do not apply within 14 days of harvest.

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

Do not make more than 10 synthetic pyrethroid applications (of one product or combination of products) to a cotton crop in one growing season. Synthetic pyrethroid products include Ambush<sup>®</sup>, Ammo<sup>®</sup>, Asana<sup>®</sup> XL, Baythroid<sup>®</sup>, Capture<sup>®</sup>, Danitol<sup>®</sup>, Karate<sup>®</sup>, Mustang<sup>®</sup>, Pounce and Scout X-TRA<sup>®</sup>.

PEPPERS, BELL AND NON-BELL (FOLIAR USE)					
		DOSAGE			
PEST	PLACEMENT	Fluid Ounces per Acre (Fl. oz./A)	Pounds Active Ingredient per Acre (Lbs. a.i./A)		
Aphids	Foliar	2.10-6.40	0.03-0.10		
Armyworms					
Corn Earworms					
Cucumber Beetles					
Cutworms					
Flea Beetles					
Leafhoppers					
Leafminers					

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Loopers			
Pepper Weevils			
Stinkbug species			
Thrips			
Tobacco budworms			
Whiteflies			
Mites (Carmine and	Foliar	5.12-6.40	0.08-0.10
Twospotted Spider)			
Plant Bugs (Lygus			
species)			

Apply this product using sufficient water to obtain uniform coverage. Apply as needed. Apply with ground equipment using a minimum of 10 gallons of finished spray per acre or a minimum of 2 gallons per acre by aircraft.

#### RESTRICTIONS

Do not make applications less than 7 days apart. Do not apply more than 0.20 pound active ingredient per acre per season. Do not apply within 7 days of harvest.

#### STORAGE AND DISPOSAL

**Pesticide Storage :** Do not freeze or store product below 40°F. If crystals are observed, gradually warm product to above 60°F by placing container in a warmer location. Gently shake or roll container periodically to redissolve solids.

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

In case of spill, avoid contact, isolate area and keep out animals and unprotected persons. Confine spills. Call Chemtrec: 1-800-424-9300

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

#### Container Handling

For <u>1 gallon plastic Container Plastic Containers 5 Gallons or Less</u>: Nonrefillable container. Do not reuse or refill this container.

Triple rinse as follows: 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 <sup>1</sup>/<sub>4</sub> 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. Offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities.

For 15 gallon returnable product Container: Returnable container. Nonrefillable container. Do not reuse or refill this container. This container is a dedicated, single-product returnable container. Return empty container to seller at location designated by seller as a collection point. Do not break seals, add anything to container or open container after use. Do not rinse or contaminate empty container. Do not dispose of un-tampered empty container or use it for any other purposes. Any evidence of broken seals or other tampering or adding anything to the container renders it unfit for return. In such case, it is the obligation of the holder of the container to dispose of it properly or offer for recycling, if available.

#### LIMITED WARRANTY AND DISCLAIMER

The manufacturer warrants (a) that this product conforms to the chemical description on the label; (b) that this product is reasonably fit for the purposes set forth in the directions for use, subject to the inherent risks referred to herein, when it is used in accordance with such directions; and (c) that the directions, warnings, and other statements on this label are based upon responsible experts' evaluations of reasonable tests of effectiveness, of toxicity to laboratory animals and to plants and residues on food crops, and upon reports of field experience. Tests have not been made on all varieties of food crops and plants, or in all states or under all conditions.

THERE ARE NO EXPRESS WARRANTIES OTHER THAN THOSE SET FORTH HEREIN. THE MANUFACTURER NEITHER MAKES NOR INTENDS, NOR DOES IT AUTHORIZE ANY AGENT OR REPRESENTATIVE, TO MAKE ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, AND IT EXPRESSLY EXCLUDES AND DISCLAIMS, TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, ALL IMPLIED WARRANTIES OF MERCHANTABILITY OF FITNESS FOR A PARTICULAR PURPOSE, OR ANY WARRANTY OF QUALITY OR PERFORMANCE. THIS WARRANTY DOES NOT EXTEND TO, AND THE BUYER SHALL BE SOLELY RESPONSIBLE FOR, ANY AND ALL LOSS OR DAMAGE WHICH RESULTS FROM THE USE OF THIS PRODUCT IN ANY MANNER WHICH IS INCONSISTENT WITH THE LABEL DIRECTIONS, WARNINGS OR CAUTIONS.

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#### **AMVAC Chemical Corporation**

4100 E. Washington Boulevard Los Angeles, CA 90023 U.S.A. 1-888-462-6822

#### **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 certification.

GROUP 3 INSECTICIDE

### 2016BIFENTHRIN {Alternate Brand Name: Xpedient Plus V}

[Product Name] is formulated to be compatible with liquid fertilizers.

Contains petroleum distillate

\*Cis isomers 97% minimum, trans isomers 3% maximum. \*\*Contains xylene range aromatic solvents.

This product contains 2 pounds active ingredient per gallon.

### KEEP OUT OF REACH OF CHILDREN WARNING - AVISO

(This label must be in the possession of the user at the time of application.) See other panels for additional precautionary information.

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.)

EPA Reg. No. **5481-517** 

EPA Est. No. **5481-AL-1** (Made in U.S.A.)

Net Weight:

As Marked on Container



AMVAC Chemical Corporation 4100 E. Washington Blvd. Los Angeles, CA 90023 U.S.A.

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#### 1-888-462-6822

#### 4100 E. Washington Blvd. Los Angeles, CA 90023 U.S.A. 1 888 462 6822

	FIRST AID			
If swallowed	<ul> <li>Call a poison control center or doctor immediately for treatment advice.</li> <li>Do not give any liquid to the person.</li> <li>Do not induce vomiting unless told to do so by the poison control center or doctor.</li> <li>Do not give anything by mouth to an unconscious person.</li> </ul>			
If inhaled				
If in eyes				
If on skin or clothing				
	EMERGENCY INFORMATION			
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. FOR THE FOLLOWING EMERGENCIES, PHONE 24 HOURS A DAY: For Medical Emergencies phone:				
NOTE TO PHYSICIAN				
This product is a pyrethroid. If large amounts have been ingested, the stomach and intestine should be evacuated. Treatment is symptomatic and supportive. Digestible fats, oils, or alcohol may increase absorption and so should be avoided. Contains petroleum distillate – vomiting may cause aspiration pneumonia.				

#### PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**WARNING:** May be fatal if swallowed. Harmful if inhaled or absorbed through skin. Causes moderate eye irritation. Avoid breathing vapor or spray mist. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, using tobacco, or using the toilet. Remove contaminated clothing and wash clothing before reuse.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

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

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

- Long-sleeved shirt and long pants.
- Chemical-resistant gloves, such as barrier laminate or nitrile rubber or neoprene rubber or Viton<sup>®</sup>.
- 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 nitrile rubber or neoprene rubber or Viton.
- Shoes plus socks, and
- Protective eyewear.

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

#### **User Safety Recommendations**

Users should:

- 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.

#### ENVIRONMENTAL HAZARDS

This pesticide is extremely toxic to fish and aquatic invertebrates. Use with care when applying in areas adjacent to any body of water. 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 make applications when weather conditions favor drift from treated areas. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwaters.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees are foraging the treatment area.

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

#### PHYSICAL AND CHEMICAL HAZARDS

Do not use or store near heat or open flame.

#### **DIRECTIONS FOR USE**

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

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

#### 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 nitrile rubber or neoprene rubber or Viton, and
- Shoes plus socks.

#### NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries and greenhouses. Keep children and pets off treated areas following application until the treated area has dried.

#### TURF AND ORNAMENTAL USE

For use to control listed insect and mite pests in greenhouses and nurseries, as well as on golf courses and on ornamentals and turf in landscaped areas around residential, institutional, public, commercial and industrial buildings, parks, recreational areas, golf courses, sod farms and athletic fields.

#### **RESTRICTIONS** – Turf and Ornamental

Do not apply by ground equipment within 25 feet of lakes, reservoirs, rivers, streams, marshes or natural ponds, estuaries and commercial fish farm ponds (please see Special Restriction in the State of New York in the Application Recommendations section of this label). When treating tall trees (> 15 feet) from the ground with high pressure sprays or during any application with air assisted equipment (mist blower), do not apply within 150 feet of aquatic areas.

Do not apply this product through any kind of irrigation system. Do not apply by air. Apply with ground equipment only. Do not apply when wind direction favors downwind drift towards nearby water bodies. Do not apply when wind velocity exceeds 10 mph. Avoid application when wind gusts approach 10 mph. Do not apply when a temperature inversion exists. Apply using the largest nozzle size compatible with adequate coverage. Do not apply if rain is expected within 12 hours (or whatever time is necessary for the spray to dry).

Do not water treated area to the point of run-off. Do not make applications during rain. Application is prohibited directly into sewers or drains, or to any area like a gutter where drainage to sewers, storm drains, water bodies, or aquatic habitat can occur. Do not allow the product to enter any drain during or after application.

Do not apply directly to impervious horizontal surfaces such as sidewalks, driveways, and patios except as a spot or crack and crevice treatment. During application, do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters or surface waters.

All outdoor applications, if permitted elsewhere on this label, must be limited to spot or crack-and-crevice treatments only, except for the following permitted uses, if allowed elsewhere on this label:

1. Applications to soil or vegetation, as listed on this label, around structures;

2. Applications to lawns, turf, and other vegetation, as listed on this label;

3. Applications to the side of a building, up to a maximum height of 3 feet above grade;

4. Applications to underside of eaves, soffits, doors, or windows permanently protected from rainfall by a covering, overhang, awning, or other structure;

5. Applications around potential pest entry points into buildings, when limited to a surface band not to exceed one inch in width;

6. Applications made through the use of a coarse, low pressure spray to only those portions of surfaces that are directly above bare soil, lawn, turf, mulch or other vegetation, as listed on this label, and not over an impervious surface, drainage or other condition that could result in runoff into storm drains, drainage ditches, gutters, or surface waters, in order to control occasional invaders or aggregating pests.

#### **APPLICATION INSTRUCTIONS** – Turf and Ornamental

2016bifenthrin formulation mixes readily with water and other aqueous carriers, and controls listed insects and mites on ornamentals, trees, shrubs, foliage plants, non-bearing fruit and nut trees, and flowers in greenhouses and interiorscapes including hotels, shopping malls, office buildings, etc., and, outdoor plantscapes, such as around residential dwellings, parks, institutional, public, commercial and industrial buildings, recreational, athletic fields, home lawns, golf courses and sod farms. Non-bearing crops are perennial crops that will not produce a harvestable raw agricultural commodity during the season of application.

2016bifenthrin may be tank-mixed with other products, including insect growth regulators. When tank mixing 2016bifenthrin with other products, observe all precautions and limitations on each separate product label. The physical compatibility of 2016bifenthrin may vary with different sources of pesticide products and local cultural practices. Any tank mixture which has not been previously tested should be prepared on a small scale (pint or quart jar) using the proper proportions of chemicals and water to ensure the physical compatibility of the mixture.

The following procedure is recommended for preparation of a new tank mix, unless specified otherwise in label directions: (1) Add wettable powders to tank water, (2) Agitate, (3) Add liquids and flowables, (4) Agitate, (5) Add emulsifiable concentrates, and (6) Agitate. If a mixture is found to be incompatible following this order of addition, try reversing the order of addition, or increase the volume of water. Note: If the tank mixture is found to be compatible after increasing the amount of water, then the sprayer will need to be recalibrated for a higher volume application. Do not allow tank mix to stand overnight.

**Maximum rates (Except Nursery)**: Do not apply more than 0.1 lb. a.i./acre (6.4 fl. oz. 2016bifenthrin) in a single application, no more than 0.2 lb. a.i./acre/year (12.8 fl. oz. 2016bifenthrin) for outdoor applications.

Note: For large infestations of ants, imported fire ants, and mole crickets, a single application of 0.2 lb. a.i./acre (12.8 fl. oz. 2016bifenthrin) may be applied once per year.

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 pest management 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 suspect that resistance is a reasonable cause, immediately consult your local company representative or pest management advisor for the best alternative method of control for your area.

#### New York State Restrictions – Turf and Ornamental:

#### NOT FOR USE ON SOD FARMS IN THE STATE OF NEW YORK.

In New York State, this product may not be applied to turf within 100 feet of a coastal marsh (or of a water body [lake, pond, river, stream, wetland, or drainage ditch]).

In New York State, do make a single repeat application of this product if there are signs of renewed insect activity, but not sooner than two weeks after the first application.

### **Application Sites:** Landscape Ornamentals, Greenhouses, Nurseries, Sod Farms, Golf Courses and Home Lawn Uses (Including Interiorscapes, Plantscapes, and Ornamental Plantings Grown for Aesthetic Purpose).

Pest	Rate lb. ai/	Rate oz./	Comments
	10 gal.	10 gal.	
Ants	0.004 to 0.02	0.256	Apply the specified rate of 2016bifenthrin as a
Aphids		to	full coverage foliar spray. Repeat as
Bagworms		1.28	necessary to achieve control using higher rates
Blackvine Weevils			as pest pressure and foliage area increases.
Brown Soft Scales			
Broad Mites			To control Bagworm: Apply when larvae
Budworms			begin to hatch. Spray larvae directly.
California Red Scale (Crawlers)			Applications made when larvae are young will
Centipedes			be most effective.
Clover Mites			
Crickets			To control scale crawlers and twig borers:
Cutworms			Treat trunks, stems, and twigs in addition to
Earwigs			plant foliage.
Elm Leaf Beetles			
Fall Webworms			Certain cultivars may be sensitive to the final
Flea Beetles			spray solution. A small number of plants
Fungus Gnats			should be treated and observed for one week
Grasshoppers			prior to application of the entire planting.
Lace Bugs			
Leafhoppers			Use of an alternate class of chemistry in a
Leaf Feeding Caterpillars			treatment program is recommended to prevent
Mealybugs			or delay pest resistance.
Millipedes			
Orchid Weevils			
Pillbugs			
Pine Needle Scales (crawlers)			
Plant Bugs (incl. Lygus spp.)			
San Jose Scales (crawlers)			
Sowbugs			
Spiders			
Tent Caterpillars			
Tip Moths			
Weevils			
Whiteflies			
European Crane Flies	0.005	0.32	

#### APPLICATION RATES FOR LANDSCAPE ORNAMENTALS AND GREENHOUSES

Citrus Thrips	0.006 to 0.02	0.384
Beet Armyworms		to
European Red Mites		1.28
Leafrollers		
Spider Mites		
Thrips		
Twig Borers		
Japanese Beetles (adult)	0.01 to 0.02	0.64
Leafminers		to
Pecan Leaf Scorch Mites		1.28

**Maximum Nursery Rates**: Do not apply more than 0.2 lb. a.i./acre (12.8 fl. oz. of 2016bifenthrin) in a single application or per year for outdoor applications.

Application	Application         Application         Fluid Ounces* of 2016bifenthrin				
Volume	Rate	Diluted to these Volumes of Finished Spray			av
Gallons Per	Pound AI	1	1 25 50		
Acre	Per Acre	Gallon	Gallons	Gallons	Gallons
50	0.025	0.032	0.8	1.6	3.2
50	0.05	0.064	1.6	3.2	6.4
50	0.1	0.128	3.2	6.4	12.8
50	0.2	0.256	6.4	12.8	25.6
100	0.025	0.016	0.4	0.8	1.6
100	0.05	0.032	0.8	1.6	3.2
100	0.1	0.064	1.6	3.2	6.4
100	0.2	0.128	3.2	6.4	12.8
150	0.025	0.011	0.267	0.533	1.07
150	0.05	0.021	0.533	1.07	2.13
150	0.1	0.043	1.07	2.13	4.27
150	0.2	0.085	2.13	4.27	8.53
200	0.025	0.008	0.2	0.4	0.8
200	0.05	0.016	0.4	0.8	1.6
200	0.1	0.032	0.8	1.6	3.2
200	0.2	0.064	1.6	3.2	6.4
250	0.025		0.16	0.32	0.64
250	0.05		0.32	0.64	1.28
250	0.1		0.64	1.28	2.56
250	0.2		1.28	2.56	5.12
300	0.025		0.133	0.267	0.533
300	0.05		0.267	0.533	1.07
300	0.1		0.533	1.07	2.13
300	0.2		1.07	2.13	4.27

#### **Nurserv Dilution Chart**

\*To convert to milliliters, multiply by 29.57.

1 fl. oz. = 29.57 ml = 2 tablespoons = 6 teaspoons

Do not use household utensils to measure 2016bifenthrin.

Formula for Determining the Active Ingredient Content of the Finished Spray Mixture: The following formula may be used to determine the percent active ingredient that is in the spray tank after mixing 2016bifenthrin.

(25.1)(fl. oz. of 2016bifenthrin added to tank) (Gallons of finished spray mix)(128)

= Percent active ingredient of spray mix

### **Turf Dilution Chart**

	-	Turi Dilut				
Application	Application	Fluid Ounces*	of 2016bifenthri	n Diluted to the	se Volumes of I	Finished
Volume	Rate	Spray				
Gallons Per	Pound	1	10	25	50	100
1,000 sq. ft.	AI/Acre	Gallon	Gallons	Gallons	Gallons	Gallons
0.5	0.05	0.147	1.47	3.68	7.35	14.7
0.5	0.1	0.294	2.94	7.35	14.7	29.4
0.5	0.2	0.588	5.88	14.7	29.4	58.8
0.75	0.05	0.098	0.98	2.45	4.9	9.8
0.75	0.1	0.196	1.96	4.9	9.8	19.6
0.75	0.2	0.392	3.92	9.8	19.6	39.2
1	0.05	0.074	0.74	1.84	3.68	7.35
1	0.1	0.147	1.47	3.68	7.35	14.7
1	0.2	0.294	2.94	7.35	14.7	29.4
1.5	0.05	0.049	0.49	1.23	2.45	4.9
1.5	0.1	0.098	0.98	2.45	4.9	9.8
1.5	0.2	0.196	1.96	4.9	9.8	19.6
2	0.05	0.037	0.37	0.92	1.84	3.68
2	0.1	0.074	0.74	1.84	3.68	7.35
2	0.2	0.147	1.47	3.68	7.35	14.7
2.3 <sup>a</sup>	0.05	0.032	0.32	0.8	1.6	3.2
2.3 <sup>a</sup>	0.1	0.064	0.64	1.6	3.2	6.4
2.3 <sup>a</sup>	0.2	0.128	1.28	3.2	6.4	12.8
3	0.05	0.025	0.245	0.613	1.23	2.45
3	0.1	0.049	0.49	1.23	2.45	4.9
3	0.2	0.098	0.98	2.45	4.9	9.8
4	0.05	0.018	0.184	0.46	0.92	1.84
4	0.1	0.037	0.368	0.92	1.84	3.68
4	0.2	0.074	0.736	1.84	3.68	7.36
	1.1.1. 0.0.57					

\*To convert to milliliters, multiply by 29.57.

<sup>a</sup> 100 gallons per acre.

1 fl. oz. = 29.57 ml = 2 tablespoons = 6 teaspoons

Do not use household utensils to measure 2016bifenthrin.

## **Applications:** Grass Areas (including golf courses, sod farms, home lawns, lawn areas around parks, institutional, public, commercial and industrial buildings, recreational and athletic fields).

Apply 2016bifenthrin as a surface or sub-surface treatment. Use application volumes of up to 10 gallons per 1000 square feet to get uniform coverage when treating dense and or long grass foliage.

For low volume applications, less than 2 gallons/1000 square feet, immediately irrigate treated area with at least 0.25 inches of water following application to ensure efficacy on sub-surface pests including mole crickets.

**Application to Home Lawns:** Apply 2016bifenthrin as a broadcast treatment in 2 to 10 gallons of carrier per 1,000 square feet. Use high volumes to get uniform coverage when treating dense grass foliage.

#### LAWN APPLICATION RATES

Pest	2016bifenthrin	Comments

Annual Bluegrass Weevil (adults)	0.073 to 0.147 fl.oz. per 1,000 sq. ft.	*For control of over-wintered Mole
Ants		Crickets apply 2016bifenthrin at the lower
Armyworms	-or-	rate early Spring. For the control of adult
Bluegrass Billbugs		Mole Crickets in late-Summer or early Fall
Chinchbugs	3.2 to 6.4 fl.oz. per Acre	apply the higher rate.
Crane Flies		
Crickets (Mole)*	-or-	To enhance control a non-ionic surfactant
Cutworms		or a silicon based surfactant (0.25% w/v)
Earwigs	0.05 to 0.1 lb. AI per Acre	may be applied as a tank-mix for the
Fall Webworms		control of late Summer or Fall Adult Mole
Fleas		Crickets. For best results irrigate
Grasshoppers		immediately after application with a
Mites		minimum of 0.25 inches of water.
Sod Webworms		
Ticks		
Imported Fire Ants	0.147 to 0.294 fl.oz. per 1,000 sq. ft.	
Japanese Beetles (adults)	-or-	
	6.4 to 12.8 fl.oz. per Acre	
	-or-	
	0.1 to 0.2 lb. AI per Acre	

#### **Imported Fire Ant Quarantine Treatment**

Against Imported Fire Ants (IFA) in Potting Media (including balled and containerized nursery grown ornamental trees, shrubs, plants, flowers, conifers, bushes, Christmas trees, and non-bearing fruit and nut trees), 2016bifenthrin is approved and can be used in accordance with the USDA Imported Fire Ant Quarantine Program. 2016bifenthrin may be applied either soil incorporated, as a topical application, or as a high volume drench treatment.

**Soil Incorporation:** Incorporate the appropriate volume of 2016bifenthrin (see table below) per cubic yard of potting media by diluting it in water (typically 1 quart to 1 gallon per cubic yard of media) and sprinkling or spraying it onto the media. The applications are based on the dry bulk density of the potting media. When used in accordance with USDA guidelines, this application will provide a 6 month certification period.

Rate 2016bifenthri		Fluid Ounces of 2016bifenthrin/Gallons of Finished Spray					
n in fl. oz. (lb. AI)/10 gals.	1 gal.	3 gals.	5 gals.	25 gals.	100 gals.		
0.256 (0.004)			0.128	0.64	2.56		
0.384 (0.006)	0.038	0.115	0.19	0.96	3.84		
0.64 (0.01)	0.064	0.192	0.32	1.6	6.4		
1.28 (0.02)	0.128	0.384	0.64	3.2	12.8		

#### Soil Incorporation Rate of 2016bifenthrin for Control of IFA in Potting Media

Potting Media	Fluid Ounces of 2016bifenthrin	
Bulk Density	in one cubic yard	
(lbs. cubic yard)	in one cubic yard	

200	0.64
400	1.28
600	1.92
800	2.56
1000	3.2
1200	3.84
1400	4.48

Use proportional amounts of 2016bifenthrin for potting media with bulk densities not listed.

**Topical Application:** Mix 2016bifenthrin in 1,000 ounces of water based on container size and bulk density of the potting media (see table below). Apply one (1) ounce of the mix to each container evenly distributed over the surface of the potting media. Irrigate all treated containers with 1.5 inches of water following application. When used in accordance with USDA guidelines, this application will provide a 6 month certification period.

#### Topical Drench Application Rates of 2016bifenthrin for Control of IFA in Potting Media

Topical Dichen Application Rates of 2010bitentin in for Control of 11 A in 1 otting Media						
Potting Media	Fluid Ounces of 2016bifenthrin					
Bulk Density (lbs. cubic yard)	Per 1,000 ounces of water					
	3 Qt. Container	4 Qt. Container				
200	1.2	1.74				
400	2.4	3.48				
600	3.6	5.22				
800	4.8	6.96				
1000	6.0	8.7				
1200	7.2	10.4				
1400	8.4	12.2				

Use proportional amounts of 2016bifenthrin for potting media with bulk densities not listed.

**High Volume Drench:** Apply 2016bifenthrin as a high volume drench by mixing the appropriate amount of product based on the bulk density in 100 gallons of water (see table below). Apply mix to individual containers to the point of saturation. The amount of mix used for each plant is generally 1/5 the volume of the container. When used in accordance with USDA guidelines, this application will provide a 6 month certification period.

Potting Media Bulk Density (lbs. cubic yard)	Fluid Ounces of 2016bifenthrin in 100 Gallons	
200	0.8	
400	1.6	
600	2.4	
800	3.2	
1000	4.0	
1200	4.8	
1400	5.6	

#### High Drench Application Rate of 2016bifenthrin for Control of IFA in Potting Media

Use proportional amounts of 2016bifenthrin for potting media with bulk densities not listed.

#### Larval Control In Potting Media of Containerized Plants

**Black Vine Weevil Larval Control** – **Preventative Treatment** – **Topical Drench:** For preventative control of black vine weevil larvae in containerized plants, dilute 2016bifenthrin at the rate of 3.2 to 12.8 fl. ozs. (0.05 to 0.2 lb. AI) per 100 gallons and apply as a drench at the rate of 4 to 8 fluid ounces of finished spray per 6 inch (diameter) container. Use a proportional volume of finished spray for conainers less than or greater than 6 inches in diameter. Ideally, the media should be treated to the point of saturation, which generally requires 1/5 the volume of the container. Diluting 3.2 fluid ounces of 2016bifenthrin per 100 gallons and applying 8 fluid ounces of finished spray per 6 inch (diameter) container will provide black vine weevil larval control for one growing season when the application is made in the spring. Diluting 6.4 to 12.8 fluid ounces of 2016bifenthrin per 100 gallons and applying 8 fluid ounces of finished spray per 6 inch (diameter) container will provide black vine weevil larval control for two

growing seasons when the application is made in the spring.

White Grub Control – Preventative Treatment – Topical Drench: For preventative control of white grubs (including Japanese beetle, oriental beetle and European chafer) in containerized plants, dilute 2016bifenthrin at the rate of 12.8 to 25.6 fl. ozs. (0.2 to 0.4 lb. AI) per 100 gallons and apply as a drench at the rate of 4 to 8 fluid ounces of finished spray per 6 inch (diameter) container. Use a proportional volume of finished spray for conainers less than or greater than 6 inches in diameter. Ideally, the media should be treated to the point of saturation, which generally requires 1/5 the volume of the container. Use the higher application rate for a longer period of control.

**Black Vine Weevil and White Grub Larval Control** – **Preventative Treatment** – **Media Incorporation:** For preventative control of black vine weevil and white grub larvae in containerized plants, incorporate the appropriate volume of 2016bifenthrin (see table below) per cubic yard of potting media by diluting it in water (typically 1 quart to 1 gallon per cubic yard of media) and sprinkling or spraying it onto the media. Use the higher application rates for longer periods of control.

Potting Media	Fluid Ounces of 2016bifenthrin in one cubic yard				
Bulk Density					
(lbs. per cubic					
yard)	10 PPM	15 PPM	20 PPM	25 PPM	
200	0.134	0.2	0.27	0.34	
300	0.2	0.3	0.4	0.5	
400	0.268	0.4	0.54	0.67	
500	0.335	0.5	0.67	0.84	
600	0.4	0.6	0.8	1.0	
700	0.469	0.7	0.94	1.17	
800	0.536	0.8	1.07	1.34	
900	0.6	0.9	1.2	1.5	
1000	0.67	1.0	1.34	1.68	

The application rates listed above are based on the dry bulk density of the potting media. Use proportional volumes of 2016bifenthrin for potting media with dry bulk densities that are not listed above.

**Black Vine Weevil Larval Control – Curative Treatment – Topical Drench:** To control black vine weevil larvae infesting containerized plants, dilute 2016bifenthrin at the rate of 3.2 to 12.8 fl. ozs. (0.05 to 0.2 lb. AI) per 100 gallons and apply as a drench at the rate of 8 to 16 fluid ounces of finished spray per 6 inch (diameter) container. Use a proportional volume of finished spray for containers less than or greater than 6 inches in diameter. Ideally, the media should be treated to the point of saturation, which generally requires 1/5 the volume of the container.

**Bare-root Treatment of Preventative Root Weevil Larval Control:** To protect treated roots of field grown nursery stock from feeding by rootweevil larvae, dilute 42.9 fl.oz. of 2016bifenthrin in 100 gallons of water and treat the bare roots of plants that are being transplanted into the field either by dipping the roots into the insecticide solution for ten seconds or by spraying the insecticide solution onto the roots.

*Diaprepes* Weevil Larval Control – Curative Treatment – Topical Drench: To control *Diaprepes* weevil larvae infesting containerized plants, dilute 2016bifenthrin at the rate of 3.2 to 12.8 fl. ozs. (0.05 to 0.2 lb. AI) per 100 gallons and apply as a drench at the rate of 8 to 16 fluid ounces of finished spray per 6 inch (diameter) container. Use a proportional volume of finished spray for containers less than or greater than 6 inches in diameter. Ideally, the media should be treated to the point of saturation, which generally requires 1/5 the volume of the container.

**Fungus Gnat Larval Control – Preventative Treatment – Topical Drench:** For preventative control of fungus gnat larvae in containerized plants, dilute 2016bifenthrin at the rate of 6.4 to 12.8 fl. ozs. (0.1 to 0.2 lb. AI) per 100 gallons and apply as a drench at the rate of 4 to 8 fl. ozs. of finished spray per 6 inch (diameter) container. Use a proportional volume of finished spray for containers less than or greater than 6 inches in diameter. Ideally, the media should be treated to the point of saturation, which generally requires 1/5 the volume of the container. Use the higher application rate for a longer period of control.

**Fungus Gnat Larval Control – Curative Treatment – Topical Drench:** To control fungus gnat larvae infesting containerized plants, dilute 2016bifenthrin at the rate of 3.2 to 12.8 fl. ozs. (0.05 to 0.2 lb. AI) per 100 gallons and apply as a drench at the rate of 8 to 16 fluid ounces of finished spray per 6 inch (diameter) container. Use a proportional volume of finished spray for containers less than or greater than 6 inches in diameter. Ideally, the media should be treated to the point of saturation, which generally requires 1/5 the volume of the container.

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#### STORAGE AND DISPOSAL

**Pesticide Storage :** Do not freeze or store product below 40°F. If crystals are observed, gradually warm product to above 60°F by placing container in a warmer location. Gently shake or roll container periodically to redissolve solids.

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

In case of spill, avoid contact, isolate area and keep out animals and unprotected persons. Confine spills. Call Chemtrec: 1-800-424-9300

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

#### **Container Handling**

For <u>Plastic Containers 5 Gallons or Less</u>1 gallon plastic Container: Nonrefillable container. Do not reuse or refill this container.

Triple rinse as follows: 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 <sup>1</sup>/<sub>4</sub> 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. Offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities.

For 15 gallon returnable product Container: Returnable container. Nonrefillable container. Do not reuse or refill this container. This container is a dedicated, single-product returnable container. Return empty container to seller at location designated by seller as a collection point. Do not break seals, add anything to container or open container after use. Do not rinse or contaminate empty container. Do not dispose of un-tampered empty container or use it for any other purposes. Any evidence of broken seals or other tampering or adding anything to the container renders it unfit for return. In such case, it is the obligation of the holder of the container to dispose of it properly or offer for recycling, if available.

#### **Dealers Must Sell in Original Packages Only.**

#### LIMITED WARRANTY AND DISCLAIMER

The manufacturer warrants (a) that this product conforms to the chemical description on the label; (b) that this product is reasonably fit for the purposes set forth in the directions for use, subject to the inherent risks referred to herein, when it is used in accordance with such directions; and (c) that the directions, warnings, and other statements on this label are based upon responsible experts' evaluations of reasonable tests of effectiveness, of toxicity to laboratory animals and to plants and residues on food crops, and upon reports of field experience. Tests have not been made on all varieties of food crops and plants, or in all states or under all conditions.

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