



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.

BIFENTHRIN GROUP 3A INSECTICIDE

SNIPER®

LFR®



For mixing directly with liquid fertilizer to control listed soil insect pests.

ACTIVE INGREDIENT:	BY WT
Bifenthrin:*	17.15%
OTHER INGREDIENTS:	82.85%
	TOTAL 100.00%

*Cis isomers 97% minimum, trans isomers 3% maximum.
This product contains 1.5 pounds active ingredient per gallon.



**KEEP OUT OF REACH OF CHILDREN
WARNING—AVISO**

EPA REG. NO. 34704-1089
091718 V1D 09B18

This label must be in the possession of the user at the time of application.
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.)

For Additional Precautionary Statements, Directions for Use, Storage and Disposal and Other Use Information, See Inside this Label Booklet.

FORMULATED FOR
LOVELAND PRODUCTS, INC. © P.O. BOX 1286 GREELEY, COLORADO 80632-1286

FIRST AID

If swallowed:	<ul style="list-style-type: none">• Call a poison control center or doctor immediately for treatment advice.• Have person sip a glass of water if able to swallow.• Do not induce vomiting unless told to by a poison control center or doctor.• Do not give anything by mouth to an unconscious person.
If in eyes:	<ul style="list-style-type: none">• 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.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
For general information on product use, etc., call the National Pesticides Information Center at 1-800-858-7378.

FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: 1-866-944-8565.

Note To Physician: This product is a pyrethroid. If large amounts have been ingested, the stomach and intestines should be evacuated.
Treatment is symptomatic and supportive. Digestible fats, oils, or alcohol may increase absorption and so should be avoided.

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS WARNING

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

Personal Protective Equipment:

Applicators and other handlers (other than mixers and loaders) must wear:

- Long-sleeved shirt and long pants,
- Waterproof gloves, and
- Shoes plus socks.

Mixers and Loaders must wear:

- Long-sleeved shirt and long pants,
- Waterproof gloves,
- 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:

- Remove PPE after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.
- 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 while 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.

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.

RESISTANCE MANAGEMENT

For resistance management, this product contains a Group 3A insecticide. Any insect population may contain individuals naturally resistant to this product and other Group 3A insecticides. The resistant individuals may dominate the insect population if this group of insecticides is used repeatedly in the same fields. Appropriate resistance-management strategies should be followed.

To delay insecticide/acaricide resistance, take the following steps:

- Rotate the use of this product or other Group 3A insecticides within a growing season, or among growing seasons, with different groups that control the same pests. Avoid application of more than the maximum number and consecutive sprays of this product or other insecticides in the same group in a season.
- Use tank mixtures with insecticides from a different group that are equally effective on the target pest when such use is permitted. Do not rely on the same mixture repeatedly for the same pest population. Consider any known cross-resistance issues (for the targeted pests) between the individual components of a mixture. In addition, consider the following recommendations provided by the Insecticide Resistance Action Committee (IRAC):
 - Individual insecticides selected for use in mixtures should be highly effective and be applied at the rates at which they are individually registered for use against the target species.
 - Mixtures with components having the same IRAC mode of action classification are not recommended for insect resistance management.
 - When using mixtures, consider any known cross-resistance issues between the individual components for the targeted pest(s).
 - Mixtures become less effective if resistance is already developing to one or both active ingredients, but they may still provide pest management benefits.
 - The insect resistance management benefits of an insecticide mixture are greatest if the two components have similar periods of residual insecticidal activity.

Mixtures of insecticides with unequal periods of residual insecticide activity may offer an insect resistance management benefit only for the period where both insecticides are active.

- Adopt an integrated pest management program for insecticide use that includes scouting, uses historical information related to pesticide use, crop rotation, record keeping, and which considers cultural, biological and other chemical control practices.
- Monitor after application for unexpected target pest survival. If the level of survival suggests the presence of resistance, consult with your local university specialist or certified pest control advisor.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or IPM recommendations for the specific site and pest problems in your area.
- For further information or to report suspected resistance contact Loveland Products at 888-574-2878 or at lovelandproducts.com.

CHEMIGATION USE DIRECTIONS

Apply this product only through sprinkler including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, drip irrigation, 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 LEPA irrigation a minimum of 0.75 inch of water per acre is recommended. Where non-emulsified oils are used as the diluents, 1.0 to 2.0 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 undesirable 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 distributions 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. This product should be applied continuously for the duration of the water application. This 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 inches 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.

APPLICATION AND MIXING INSTRUCTIONS

This product is an insecticide that contains 1.5 pounds of bifenthrin per gallon. This product can be mixed directly with liquid fertilizer or with water. The rate of application is variable according to pest pressure, timing of treatments and field scouting. Use lower rates under light to moderate pest infestations, and higher rates under heavier pest pressure. In arid climates applications rates are generally higher. Fill the tank one-half full with liquid fertilizer or water and begin spray tank agitation. Add the proper amount of this product, and then add the rest of the fertilizer or water. Maintain agitation until the mixture has been applied.

Shake well before using.

Agitate this product's spray solutions in nurse tanks prior to moving the solution to spray system.

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

This product can be applied in-furrow with the seed, as a T-band (band over the open furrow), as a broadcast application, as a band over the row, as a pre-emergent (PRE) application, as a post plant incorporated (PPI) application, as a foliar application (includes chemigation), or as a transplant-water drench during setting.

Use rates in the individual crop sections for at-plant soil applications are listed as fluid ounces per 1000 linear feet, based on 30-inch row spacings. For conversion to application rates applicable to other row spacings see the table below.

The maximum application rate per acre per season (pounds active ingredient per acre per season) as listed under the use directions for each crop must not be exceeded. This seasonal maximum includes at-plant plus foliar applications of this product and other products containing bifenthrin.

For at-plant applications, this product can be mixed with commonly used liquid starter or pop-up fertilizers. Follow liquid fertilizer recommendations regarding seed safety and use guidelines. Conduct a preliminary jar test using the appropriate ratio of fertilizer and this product. Do not allow a tank mixture to set overnight, but if this occurs agitate tank mixture prior to application.

Product Required Per Acre for Various Row Spacings

Row Spacing	36"	30"	20"	15"	Twin Row 30" centers
Lin row ft/A	14,520 ft	17,424 ft	26,136 ft	34,848 ft	34,848 ft
Conversion					
0.2 fl oz/1,000 lin ft =	2.9 fl oz/A	3.5 fl oz/A	5.2 fl oz/A	7.0 fl oz/A	7.0 fl oz/A
0.24 fl oz/1,000 lin ft =	3.5 fl oz/A	4.2 fl oz/A	6.3 fl oz/A	8.4 fl oz/A	8.4 fl oz/A
0.3 fl oz/1,000 lin ft =	4.4 fl oz/A	5.2 fl oz/A	7.8 fl oz/A	10.5 fl oz/A	10.5 fl oz/A
0.39 fl oz/1,000 lin ft =	5.7 fl oz/A	6.8 fl oz/A	10.2 fl oz/A	13.6 fl oz/A	13.6 fl oz/A
0.49 fl oz/1,000 lin ft =	7.1 fl oz/A	8.5 fl oz/A	12.8 fl oz/A		

Cont'd next page

Product Required Per Acre for Various Row Spacings

Row Spacing	36"	30"	20"	15"	Twin Row 30" centers
Lin row ft/A	14,520 ft	17,424 ft	26,136 ft	34,848 ft	34,848 ft
Conversion					
0.73 fl oz/1,000 lin ft =	10.6 fl oz/A	12.7 fl oz/A			
0.78 fl oz/1,000 lin ft =	11.3 fl oz/A	13.6 fl oz/A			
0.98 fl oz/1000 lin ft =	14.2 fl oz/A	17.1 fl oz/A			
1.47 fl oz/1,000 lin ft =	21.3 fl oz/A	25.6 fl oz/A			

CROP ROTATION RESTRICTIONS

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 MIXTURES

This 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. To insure successful applications, product compatibility tests should be conducted.

MAXIMUM ALLOWABLE PRODUCT USE 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 the 12-month period. The 12-month period is to begin upon the initial application to the acre.

Buffer Zones

Vegetative Buffer Zones

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

Only apply products containing 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. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs143_023819.pdf.

Buffer Zone for Ground Application (groundboom, overhead chemigation, or air-blast)

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).

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).

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 (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.

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.

ARTICHOKE

At-Plant

PEST	USE RATES			DIRECTIONS
	Fl oz/A	Fl oz/1,000 lin ft	Lb bifenthrin/A	
Cribrate Weevil (Grubs)	8.5	0.49	0.10	Apply as a 5-to 7-inch band (T-band) over an open furrow, or in-furrow with the seed.

Foliar

PEST	USE RATES		DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
Artichoke Plume Moth Cribrate Weevil	8.5	0.10	Apply 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 75.0 gal/A of finished spray. Application by air: Apply specified dosage in a minimum of 10.0 gal/A of finished spray.

Foliar Restrictions:

- Do not apply within 5 days of harvest.

PPI & PRE

PEST	USE RATES		METHOD and DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
Cribrate Weevil (Grubs)	8.5	0.10	PPI: This product can be tank mixed and applied with PPI herbicides. Incorporation of this product should not be any deeper than the intended planting depth and no deeper than 3 inches. Incorporation depth should be close to the intended seed planting depth.
	8.5	0.10	PRE: This product can be tank mixed and applied with PRE herbicides.

Artichoke Restrictions:

Do not apply more than 0.5 pounds bifenthrin acre per season including at-plant, foliar PPI and PRE applications of this and other bifenthrin-containing products.

BEETS (Garden)
not for use in California

At-plant

PEST	USE RATES		DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
Crown and Root Aphids Cutworms Flea Beetles Root and Seed-corn Maggots Wireworms	8.5	0.1	Apply as a 5- to 7-inch band (T-band) over an open furrow, or in-furrow with the seed. May be applied through transplant water at time of transplanting.

Foliar

PEST	USE RATES		DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
Garden Beet Pests Only: Aphids Fire Ants Flea Beetles Lepidopterous Larvae Spider Mites Whitefly	6.8 to 8.5	0.08 to 0.10	Thorough coverage is necessary to attain acceptable control. Make application at the onset of infestation reaching locally determined economic thresholds. Apply foliar treatments in at least 25.0 gal/A.

Foliar Restrictions:

- Do not make applications less than 7 days apart.
- Do not apply within 1 day of harvest.

PPI & PRE

PEST	USE RATES		METHOD and DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
Crown and Root Aphids Cutworms Flea Beetles Root and Seedcorn Maggots Wireworms	8.5	0.1	PRE: This product can be tank mixed and applied with PRE pesticides. PPI: This product can be tank mixed and applied with PPI-labeled herbicides. Incorporation of this product should not be any deeper than the intended planting depth. Incorporation depth should be close to the intended depth.

Garden Beets Restrictions:

Do not apply more than 0.4 pounds bifenthrin per acre per season including at-plant, foliar, PPI and PRE applications of this and other bifenthrin-containing products.

BRASSICAS, Head and Stem (Crop Subgroup 5A)

Including: broccoli, cavalo; broccoli, Chinese; broccoli (gai lon, white flowering broccoli); brussels sprouts; cabbage; Chinese (napa); cabbage, Chinese mustard (gai choy); cauliflower; and kohlrabi

At-Plant

PEST	USE RATES			DIRECTIONS
	Fl oz/A	Fl oz/1,000 lin ft	Lb bifenthrin/A	
Army cutworm Armyworm Species Cabbage maggot Cutworm species Grubs Root aphids Root maggot Seedcorn maggot Wireworm	3.4 to 6.8	0.20 to 0.39	0.04 to 0.08	Apply as a 5- to 7-inch band (T-band) over the open seed or transplant furrow, or in-furrow with the seed or transplant. Cutworm and armyworm treatments may be applied as broadcast treatments to the soil surface. May be applied through transplant water at time of transplanting.

At-Plant Restrictions:

- Do not apply more than 0.1lb ai/A/season as an at-plant application.

Foliar

PEST	USE RATES		DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
Aphids Armyworms Black burrowing bug Corn Earworm Crickets Cucumber Beetles Cutworms Diamondback Moth Flea Beetles Ground Beetles Imported Cabbage-worm Leafhoppers Loopers Saltmarsh Caterpillar Stink Bugs Thrips Tobacco Budworm Whitefly Wireworm (adults)	2.8 to 8.5	0.033 to 0.100	Thorough coverage is necessary to attain acceptable control. Make application at the onset of infestation reaching locally determined economic thresholds. Apply in a minimum of 2.0 gal/A of finished spray by air or in a minimum of 10.0 gal/A with ground equipment. When applying by air, 1.0 to 2.0 qt of emulsified oil may be substituted for 1.0 to 2.0 qt of water in the finished spray.
Banks Grass Mite Carmine Mite Lygus Species Pacific Spider Mite Twospotted Spider Mite	6.8 to 8.5	0.08 to 0.10	

Foliar Restrictions:

- 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.

PPI & PRE

PEST	USE RATES		METHOD and DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
Garden Symphyllans Root Aphids Root Maggots Seed corn maggot Wireworms	3.4 to 6.8	0.04 to 0.08	PPI: This product should not be incorporated any deeper than the intended planting depth and no deeper than 3 in. Incorporation depth should be close to the intended seed planting or transplant depth. PRE: This product can be tank mixed and applied with PRE labeled herbicides and fungicides for pre-transplant application.

Brassica, Head and Stem (Crop Subgroup 5A) Restrictions:

Do not apply more than 0.5 pound bifenthrin per acre per season including at-plant, foliar, PPI and PRE applications of this and other bifenthrin-containing products.

BUSHBERRIES (Crop Subgroup 13-07B) not for use in California

Including: aronia berry; blueberry, highbush; blueberry, lowbush; buffalo currant; Chilean guava; cranberry; highbush; currant; black currant; red elderberry; European barberry; gooseberry; honeysuckle, edible; huckleberry; jostaberry; Juneberry (Saskatoon berry); lingonberry; native currant; salal; sea buckthorn; cultivars, varieties, and/or hybrids of these

At-Plant

PEST	USE RATES		DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
White Grubs Wireworm	8.5	0.10	Apply as a (T-band) over an open furrow immediately prior to transplanting, or in-furrow with the transplant in sufficient water for planting. May also be applied as a solid drench with transplant water at time of transplanting.

Foliar

PEST	USE RATES		DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
Aphids Blueberry maggot Fruitworms Japanese beetle Leaf rollers Leafhoppers Lecanium scale (crawlers) Obliquebanded leaf roller Plum curculio Red banded leafroller Spanworm Spotted Winged Drosophila Variegated leafroller	3.4 to 8.5	0.04 to 0.10	Apply in a minimum of 2.0 gal/A finished spray by air or in a minimum of 10.0 gal/A with ground equipment. Thorough coverage is essential to achieve control. Make application at the onset of infestation reaching locally determined economic thresholds.
Carmine Mite Lygus Species Pacific Spider Mite Twospotted Spider Mite	6.8 to 8.5	0.08 to 0.10	

Foliar Restrictions:

- Do not make applications less than 7 days apart.
- Do not apply within 1 day of harvest.

PPI (Site Preparation) & PRE

PEST	USE RATES		METHOD and DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
Blueberry Maggot (larvae) White Grubs Wireworm	8.5	0.10	PPI: This product can be tank mixed and applied with PPI herbicides, insecticides and fungicides where allowed. Incorporation of this product should not be any deeper than the intended planting depth. Incorporation depth should be close to the intended planting depth.
	3.4 to 8.5	0.04 to 0.10	PRE: This product can be tank mixed and applied with PRE herbicides.

Bushberries (Crop Subgroup 13-07B) Restrictions:

- Do not apply more than 0.5 pound bifenthrin per acre per season including at-plant, foliar, PPI, and PRE application of this and other bifenthrin-containing products.

CANE BERRIES (Crop Subgroup 13-07A)
not for use in California

Including: bingleberries, blackberries, dewberries, loganberries, lowberries, marionberries, olallieberries, raspberries, and youngberries.

At-plant

PEST	USE RATES		DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
White Grubs Wireworm	8.5	0.10	Apply as a 5- to 7-inch band (T-band) over an open furrow in sufficient water for planting, or in-furrow with the seed. May be applied through transplant water at time of transplanting.

Foliar

PEST	USE RATES		DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
Leafrollers Orange Tortrix Root Weevils Spotted Winged Drosophila	4.3 to 8.5	0.05 to 0.10	Apply by air or ground equipment using sufficient water to obtain full coverage of foliage (minimum of 10.0 gal/A by air and 50.0 gal/A by ground).
Raspberry Crown Borer Spider Mites	8.5	0.10	One application may be made pre-bloom and a second application may be made post-bloom. For Crown Borer, apply 0.1 lb bifenthrin/A post-harvest (fall) or pre-bloom (spring), as a drench application directed at the crown of plants in a minimum of 200 gal water/A. Greater efficacy is observed at higher gallons (up to 400 gal/A) or in an application prior to a significant rainfall event. Do not make both pre-bloom foliar and pre-bloom drench applications.

Foliar Restrictions:

- One application may be made pre bloom and a second application may be made post bloom.
- Do not apply within 3 days of harvest.

PPI (Site Preparation) & PRE

PEST	USE RATES		METHOD and DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
White Grubs Wireworm	8.5	0.10	PPI: This product can be tank mixed and applied with PPI pesticides labeled for site preparation. Incorporation of this product should not be any deeper than the intended planting depth. Incorporation depth should be close to the intended planting depth.
	8.5	0.10	PRE

Caneberries (Crop Subgroup 07A) Restrictions:

Do not exceed 0.2 pounds bifenthrin per acre per season including at-plant, foliar, PPI, and PRE applications of this and other bifenthrin-containing products.

CANOLA, CRAMBE, RAPESEED
not for use in California

At-plant

PEST	USE RATES		DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
Army cutworm Armyworm species Cutworm species Grape colaspis Grubs Root aphids Seed corn beetle Seed corn maggot Stalkborer Sugarcane beetle True armyworm Wireworm	6.8	0.08	Apply as a 5- to 7-inch band (T-band) over an open furrow, or in-furrow with the seed.

Foliar

PEST	USE RATES		DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
Aphids Armyworms Cutworms Diamondback Moth Loopers Flea Beetle Flea Hopper Grasshopper Other Lepidopterous Larvae Plant Bug Stink Bugs Seedpod Weevil Thrips Whitefly	2.8 to 3.4	0.033 to 0.040	Apply in a minimum of 2.0 gal/A finished spray by air or in a minimum of 10.0 gal/A with ground equipment. When applying by air, 1.0 to 2.0 qt of emulsified oil may be substituted for 1.0 to 2.0 qt of water in the finished spray. Thorough coverage is essential to achieve control.

Foliar Restrictions:

- Do not make applications less than 14 days apart.
- Do not apply within 35 days of harvest.

PPI & PRE

PEST	USE RATES		METHOD and DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
Army cutworm Armyworm species Cutworm species Grape colaspis Grubs Root aphids Seed corn beetle Seed corn maggot Stalkborer Sugarcane beetle True armyworm Wireworm (PPI only)	6.8	0.08	PPI: This product can be tank mixed and applied with PPI herbicides. Incorporation of this product should not be any deeper than the intended planting depth and no deeper than 3 inches. Incorporation depth should be close to the intended seed planting depth. PRE: This product can be tank mixed and applied with PRE herbicides.

Canola, Crambe, and Rapeseed Restrictions:

Do not apply more than 0.08 pounds bifenthrin per acre per season including at-plant, foliar, PPI, and PRE applications of this and other bifenthrin-containing products.

CILANTRO, CORIANDER**At-Plant**

PEST	USE RATES			DIRECTIONS
	Fl oz/A	Fl oz/1,000 lin ft	Lb bifenthrin/A	
Armyworm species Cutworm species Flea beetle larvae Wireworm	3.4 to 6.8	0.2 to 0.39	0.04 to 0.08	Apply as a 5- to 7-inch band over the row on the soil surface, a 5- to 7-inch band over the open furrow (T-band) in-furrow with the seed, or broadcast to the soil surface.

At-plant Restrictions:

- Do not apply more than 0.1 lb bifenthrin/A per season as an at-plant application.

Foliar

PEST	USE RATES		DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
Aphids Beet Armyworm Cabbage Looper Cutworm Flea beetle Grasshoppers Leafminer Saltmarsh caterpillar Spotted Cucumber beetle Thrips Whitefly	2.8 to 8.5	0.033 to 0.100	Apply using sufficient water to obtain uniform coverage. Apply with ground equipment using a minimum of 10.0 gal/A finished spray or a minimum of 2.0 gal/A by aircraft.
Two Spotted Spider Mite	6.8 to 8.5	0.08 to 0.10	

Foliar Restrictions:

- Do not make applications less than 7 days apart.
- Do not apply within 3 days of harvest.

PPI & PRE

PEST	USE RATES		METHOD and DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
Army cutworm Armyworm species Cutworm species Grape colaspis Grubs Root aphids Seed corn beetle Seed corn maggot Wireworms (PPI Only)	3.4 to 6.8	0.04 to 0.08	PPI: This product can be tank mixed and applied with PPI herbicides. Incorporation of this product should not be any deeper than the intended planting depth and no deeper than 3 inches. Incorporation depth should be close to the intended seed planting depth. PRE: This product can be tank mixed and applied with PRE herbicides.

Cilantro and Coriander Restrictions:

Do not apply more than 0.5 pounds bifenthrin per acre per season including at-plant, foliar, PPI, and PRE applications of this and other bifenthrin-containing products.

CITRUS (Crop Group 10-10)

Including: Australian desert lime; Australian finger-lime; Australian round lime; Brown River finger lime; calamondin; citron; citrus hybrids; grapefruit; Japanese summer grapefruit; kumquat; lemon; lime; Mediterranean mandarin; mount white lime; New Guinea wild lime; orange, sour, orange, sweet; pummelo; Russell River lime; satsuma mandarin; sweet lime; tachibana orange; Tahiti lime; tangelo; tangerine (mandarin); tangor; trifoliolate orange; uniq fruit; cultivars, varieties, and/or hybrids of these

Use Directions:

When applied as directed, this product will provide control of the following pests listed in the table below. Apply this product by ground equipment to bare soil beneath citrus trees. This product must be uniformly applied from the trunk to the drip line of tree. Apply in a minimum of 40.0 gallons of dilute spray per acre. Greater spray volume should insure greater uniformity of coverage. A pre- and post-application irrigation may aid in the uniformity of coverage as well.

This 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 this product's applications 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 and Fuller Rose Beetle typically exhibit a single emergence peak in the spring. Brown and Little Leaf Notchers typically exhibit three emergence peaks, spring, summer and fall. Since emergence varies seasonally and by location, timing of product application can be accurately forecast 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 to 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.

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, 42.5 fluid ounces 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, 21.25 fluid ounces formulated product can be applied early season and 21.25 fluid ounces formulated product can be applied later in the season.

Bare soil surface under drip line

PEST	USE RATES		DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
Asian cockroach Fire ants (Solenopsis species)	8.5 to 21.25	0.10 to 0.25	Apply the specified dosage in a minimum of 40.0 gal/A of finished spray.
Blue Green Citrus Root Weevil Brown Leaf Notcher Diaprepes Root Weevil Little Leaf Notcher Southern Blue-Green Citrus Root Weevil	21.25 to 42.5	0.25 to 0.50	

Bare soil surface under drip line Restrictions:

- Do not allow any application of this product to contact fruit or foliage.
- Do not apply more than a total of 42.5 fl oz of formulated product (0.5 pound bifenthrin)/acre/year.
- Do not apply by air.

CORN

Field Corn (Grain and Silage), field corn grown for seed, popcorn, sweet corn, sweet corn grown for seed

Use Directions:

Heavy Corn Rootworm Pressure Management Program: In areas where large corn rootworm populations are present, a multi-approach system may be needed for optimal pest management. However, if the population level is not known and if a corn rootworm adult scouting program along with threshold adult control measures were not completed during the previous growing season, then utilize a maximum dosage seed treatment program or genetically modified corn rootworm resistant hybrid in addition to this product.

At-Plant

PEST	USE RATES			DIRECTIONS
	Fl oz/A	Fl oz/1,000 lin ft	Lb bifenthrin/A	
Corn rootworm Larvae (Northern, Southern and Western)	6.8 to 17.0	0.39 to 0.98	0.08 to 0.20	Apply as a 5- to 7-inch band (T-band) over an open furrow, or in-furrow with the seed. For Army cutworm, Armyworm species, Cutworm species, Stalkborer, or True armyworm, apply as a 5- to 7-inch band over the row on the soil surface, a 5- to 7-inch band over the open furrow (T-band), in-furrow with the seed, or broadcast to the soil surface.
Army cutworm Armyworm species Cutworm species Grape colaspis Grubs Root aphids Seed corn beetle Seed corn maggot Stalkborer Sugarcane beetle True armyworm Wireworm	3.4 to 13.6	0.20 to 0.78	0.04 to 0.16	

At-Plant Restrictions:

- Do not apply more than 0.2 pound bifenthrin/A/season as an at-plant application.
- For field corn - Do not apply more than 0.3 lb bifenthrin/A/season including PPI, at-plant, pre-emergence, and foliar applications of other bifenthrin products (such as Sniper and Sniper Helios®).
- For sweet corn - Do not apply more than 0.2 lb bifenthrin/A total per season including PPI, at-plant, pre-emergence, and foliar applications of other bifenthrin products (such as Sniper and Sniper Helios®).

Foliar

PEST	USE RATES		DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
Aphids Army Cutworm Armyworm species Beet Armyworm Cereal Leaf Beetle Chinch Bug Common Stalk Borer Corn Earworm ¹ Corn Rootworm Adults Cucumber Beetle Adult Cutworm species European Corn Borer ² Fall Armyworm Flea Beetle Grasshoppers Greenbug Japanese Beetle Adult Sap Beetle Southern Armyworm Southern Corn Leaf Beetle Southwestern Corn Borer ² Stinkbugs Tarnished Plant Bug True Armyworm Webworms Western Bean Cutworm Yellowstriped Armyworm	2.8 to 8.5	0.033 to 0.100	Apply in a minimum of 2.0 to 5.0 gal/A of finished spray by aircraft or in a minimum of 10.0 gal/A with ground equipment. To improve control by aircraft, use 5.0 gal/A of finished spray particularly when initial populations are heavier than normal. When applying by air, 1.0 to 2.0 qt of emulsified oil may be substituted for 1.0 to 2.0 qt of water in the finished spray. Thorough coverage is essential to achieve control. 1 To Control Ear Attacking Pests: Apply this product just before silking and repeat as necessary to maintain control. 2 European Corn Borer, Southwestern Corn Borer: Make application for corn borer control with initial application at or shortly before egg hatch. For Control of Other Insect Pests: Apply when pests first appear and repeat as necessary. 3 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 Carmine Mite and Twospotted Spider 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 dimethoate ai/A in tank mixture has demonstrated good control under these conditions. For Mite Control in Texas, New Mexico, Oklahoma, and Arizona: Apply in a minimum of 5.0 gal/A of finished spray by aircraft or in a minimum of 10.0 gal/A with ground equipment.
Banks Grass Mite ³ Carmine Mite ³ Twospotted Spider Mite ³	6.8 to 8.5	0.08 to 0.10	

Cont'd next page

Foliar Restrictions:**For field corn:**

- Do not apply within 30 days of harvest for field corn (grain and silage), field corn grown for seed, and popcorn.
- Do not graze livestock in treated areas or cut treated crops for feed within 30 days of the last application for field corn (grain and silage), field corn grown for seed, and popcorn.

For sweet corn:

- Do not apply within 1 day of harvest for sweet corn or sweet corn grown for seed.
- Do not graze livestock in treated areas or cut treated crops for feed within 1 day of the last application for sweet corn or sweet corn grown for seed.
- 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.

PPI & PRE

PEST (PRE and PPI unless noted)	USE RATES		METHOD and DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
Armyworm species Black Cutworm Grape colaspis (PPI only) Seed corn beetle Seed corn maggot (PPI only) Stalkborer (PRE only) White Grub (PPI only) Wireworm (PPI only)	4.0 to 5.3	0.047 to 0.062	PPI: This product can be tank mixed and applied with PPI herbicides. Incorporation of this product should not be any deeper than the intended planting depth and no deeper than 3 inches. INCORPORATION DEPTH: Incorporation depth should be close to the intended seed planting depth.
	3.4	0.04	PRE: This product can be tank mixed and applied with PRE herbicides.

Corn Restrictions:

- For field corn:** Do not apply more than 0.3 pounds bifenthrin per acre total per season including at-plant, foliar, PPI and PRE applications of this and other bifenthrin products.
- For sweet corn:** Do not apply more than 0.2 pounds bifenthrin per acre total per season including at-plant, foliar, PPI and PRE applications of this and other bifenthrin products.

COTTON
not for use in California

At-plant

PEST	USE RATES		DIRECTIONS
	Fl oz/A	Fl oz/1,000 lin ft	
Cutworm spp Grape colaspis Root Maggot Seedcorn Maggot White Grub Wireworm	1.7 to 8.5	0.1 to 0.5	0.02 to 0.10

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

Foliar

PEST	USE RATES		DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
European Corn Borer Soybean (Banded) Thrips Tobacco Thrips	1.7 to 8.5	0.02 to 0.10	Apply as needed using sufficient water to obtain uniform coverage. Apply with ground equipment using a minimum of 5 gallons of finished spray per acre or a minimum of 1 gallon per acre by aircraft. 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.
Boil Weevil ¹ Bollworm Cabbage Looper Cotton Aphid ² Cotton Fleahopper Cotton Leafperforator Cutworms Fall Armyworm Plant Bugs Saltmarsh Caterpillar Southern Garden Leafhopper Stink Bugs Tobacco Budworm Whitefly Yellow Striped Armyworm	3.4 to 8.5	0.04 to 0.10	1 Boll Weevil: Apply this product at an interval of 3 to 4 days until pest numbers are reduced to acceptable levels. 2 Aphids and Mites: Apply when pests first appear. Repeat as necessary to maintain control. Higher rates will be required once a damaging threshold is established.
Beet Armyworm Carmine Spider Mite ² Lygus species Pink Bollworm Twospotted Spider Mite ²	5.1 to 8.5	0.06 to 0.10	

Foliar Restrictions:

- Do not apply within 14 days of harvest.
- Do not graze livestock in treated areas or cut treated crops for feed.

PPI & PRE

PEST (PPI only unless noted)	USE RATES		METHOD and DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
Cutworm species (PPI and PRE) Grape colaspis Root maggot Seedcorn maggot White Grub Wireworm	3.4 to 8.5	0.04 to 0.10	PPI: This product can be tank mixed and applied with PPI herbicides. Incorporation of this product should not be any deeper than the intended planting depth and no deeper than 3 inches. Incorporation depth should be close to the intended seed planting depth. PRE: This product can be tank mixed and applied with PRE herbicides.

Cotton Restrictions:

- Do not apply more than 0.5 pounds bifenthrin per acre per season including at-plant, foliar, PRE, and PPI applications of this and other bifenthrin-containing products in all states except in California
 - For California, do not apply more than 0.3 pounds bifenthrin per acre per season.
- 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 but are not limited to Asana® XL, Consero, Danitol®, Declare®, Holster, Karate®, Mustang®, Permethrin, Sniper, Sniper Helios, Tombstone, and Tombstone Helios.

CUCURBITS (Crop Group 9)

Including: chayote (fruit); Chinese waxgourd (Chinese preserving melon); citron melon; cucumber; gherkin; gourd; *Lagenaria* (edible) species (includes hyotan, cucuzza); *Luffa* species (includes hechima, chinese okra); *Momordica* species (includes balsam apple, balsam pear, bitter melon, chinese cucumber); muskmelon (hybrids and/or cultivars of cucumis melo) (includes true cantaloupe, cantaloupe, casaba, crenshaw melon, golden pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon, and snake melon); pumpkin (*Cucurbita* species); squash, summer (includes crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini); squash, winter (includes acorn squash, butternut squash, calabaza, hubbard squash (*C. Mixta*; *C. Pepo*), spaghetti squash); watermelon (includes hybrids and/or varieties of *Citrullus* species)

At-Plant

PEST	USE RATES			DIRECTIONS
	Fl oz/A	Fl oz/1,000 lin ft	Lb bifenthrin/A	
Cucumber beetle larvae	6.8 to 8.5	0.39 to 0.49	0.08 to 0.10	Apply as a 5- to 7-inch band (T-band) over an open furrow, or in-furrow with the seed. May be applied through transplant water at time of transplanting. To control cucumber beetle larvae, apply as a 5- to 7-inch band over an open furrow (T-band), or in-furrow with the seed. To control flea beetle larvae, grubs, and wireworm, apply as a 5- to 7-inch band over an open furrow (T-band), or in-furrow with the seed or transplant. To control army cutworm, armyworm species, cutworm species, and true armyworm, apply as a 5- to 7-inch band over the row on the soil surface, a 5- to 7-inch band over the open furrow (T-band), in-furrow with the seed, broadcast to the soil surface or banded over the row.
Army cutworm Armyworm species Cutworm species Flea beetle larvae Grubs True Armyworm Wireworm	3.4 to 6.8	0.20 to 0.39	0.04 to 0.08	

At-plant Restrictions:

- Do not apply more than 0.1 lb bifenthrin/A per season as an at-plant application.

Foliar

PEST	USE RATES		DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
Aphids Armyworms Cabbage Looper Corn Earworm Cucumber beetles Cutworms Grasshopper Leafhoppers Melonworm Pickleworm Plant Bug Rindworm Squash Bugs Squash Vine Borer Stink Bugs Tobacco Budworm	3.4 to 8.5	0.04 to 0.10	Thorough coverage is necessary to attain acceptable control. Make application at the onset of infestation reaching locally determined economic thresholds Apply in a minimum of 5.0 gal/A of finished spray by air or in a minimum of 20.0 gal/A with ground equipment When applying by air 1.0 to 2.0 qt of emulsified oil may be substituted for 1.0 to 2.0 qt of water in the finished spray. Thorough coverage is essential to achieve control
Carmine Mite <i>Lygus</i> species Mite Twospotted Spider Mite Whitefly	6.8 to 8.5	0.08 to 0.10	

Foliar Restrictions:

- 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.

PPI & PRE

PEST	USE RATES		METHOD and DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
Army cutworm Armyworm species Cutworm species Flea beetle larvae Grubs Seed Corn Maggot True Armyworm Wireworms	6.8 to 8.5	0.08 to 0.10	PPI: This product can be tank mixed and applied with PPI labeled pesticides. Incorporation of this product should not be any deeper than the intended planting depth. Incorporation depth should be close to the intended depth. Apply through drip or drip tape. Apply when soil is moist towards the end of the irrigation run. PRE: This product can be tank mixed and applied with PRE pesticides. Apply through drip or drip tape. Apply when soil is moist towards the end of the irrigation run.

Cucurbits (Crop Group 9) Restrictions:

- Do not apply more than 0.3 pounds bifenthrin per acre per season including at-plant, foliar PPI and PRE applications of this and other bifenthrin-containing products.

DRIED BEANS AND PEAS (Crop Subgroup 6C)

Including: Dried cultivars of: adzuki bean; bean (*Lupinus*); bean (*Phaseolus*); bean (*Vigna*); blackeyed pea; broad bean (dry); catjang; chickpea; cowpea; crowder pea; field bean; field pea; guar; kidney bean; lablab bean; lentil; lima bean (dry); moth bean; mung bean; navy bean; pea (*Pisum*); pigeon pea; pinto bean; purple hulled peas; rice bean; southern pea; tepary bean; and urd bean

At-Plant

PEST	USE RATES			DIRECTIONS
	Fl oz/A	Fl oz/1,000 lin ft	Lb bifenthrin/A	
Corn rootworm larvae	6.8 to 8.5	0.39 to 0.49	0.08 to 0.10	Apply as a 5- to 7- inch band over the row on the soil surface, 5- to 7-inch band (T-band) over an open furrow, or in-furrow with the seed. For control of Army cutworm, Armyworm species, Cutworm species, or True Armyworm , apply broadcast to the soil surface.
Army cutworm Armyworm species Cutworm species Grape colaspis Grubs Root maggot True armyworm Wireworm	3.4 to 6.8	0.20 to 0.39	0.04 to 0.08	

At-plant Restrictions:

- Do not apply more than 0.1 lb bifenthrin /A per season as an at-plant application.

Foliar

PEST	USE RATES		DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
Aster Leafhopper Flea Beetle Grasshoppers Leafhoppers	2.1 to 8.5	0.025 to 0.100	Apply in a minimum of 2.0 gal/A of finished spray by air or in a minimum of 10.0 gal/A with ground equipment. Thorough coverage is essential to achieve control.
Alfalfa Caterpillar Aphids Bean Leaf Beetle Beet Armyworm Cloverworm Corn Earworm Corn Rootworm (Adult) Cucumber Beetles Cutworms European Corn Borer Fall Armyworm Grasshoppers Imported cabbageworm Japanese beetle (Adult) Leafminer Loopers Mexican Bean Beetle Pea Leaf Weevil Pea Weevil Plant Bug Saltmarsh caterpillar Sap Beetle Southern Armyworm Stink Bugs Tarnished Plant Bug Thrips Twospotted Spider Mite Tobacco budworm	2.8 to 8.5	0.033 to 0.100	When applying by air, 1.0 to 2.0 qt of emulsified oil may be substituted for 1.0 to 2.0 qt of water in the finished spray.

PEST	USE RATES		DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
Webworms Western Bean Cutworm Whitefly Yellowstriped Armyworm	2.8 to 8.5	0.033 to 0.100	
Banks Grass Mite Carmine Mite <i>Lygus</i> Species	6.5 to 8.5	0.08 to 0.10	

Foliar Restrictions:

- Do not apply within 14 days of harvest.
- Do not make applications less than 7 days apart.

PPI & PRE

PEST	USE RATES		METHOD and DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
Army cutworm Armyworm species Cutworm species Grape colaspis Grubs Root maggot True armyworm Wireworm (PPI only)	6.8 to 8.5	0.08 to 0.10	PRE: This product can be tank mixed and applied with PRE pesticides. Apply in a minimum of 10.0 gal/A. PPI: This product can be tank mixed and applied with PPI herbicides. Incorporation of this product should not be any deeper than the intended planting depth and no deeper than 3 inches. Incorporation depth should be close to the intended seed planting depth. Apply in a minimum of 10.0 gal/A.

Dried Beans and Peas (Crop Subgroup 6C) Restrictions:

- Do not apply more than 0.2 pounds bifenthrin per acre to peas, or 0.3 pounds bifenthrin per acre to beans per season including at-plant, foliar, PPI and PRE applications of this and other bifenthrin-containing products.

EGGPLANT

At-Plant

PEST	USE RATES			DIRECTIONS
	Fl oz/A	Fl oz/1,000 lin ft	Lb bifenthrin/A	
Army cutworm Armyworm species Cutworm species Grubs Root maggot True armyworm Wireworm	3.4 to 6.8	0.2 to 0.39	0.04 to 0.08	Apply as a 5- to 7-inch band over the row on the soil surface, a 5- to 7-inch band over the open furrow (T-band), or in-furrow with the transplant. For control of Army Cutworm, Armyworm species, Cutworm species, or True Armyworm , apply broadcast to the soil surface.

At-plant Restrictions:

- Do not apply more than 0.1 lb bifenthrin/A per season as an at-plant application.

Foliar

PEST	USE RATES		DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
Armyworms (Including Beet) Cabbage Looper Colorado Potato Beetle Corn Earworm Cucumber Beetle Cutworms European Corn Borer Flea Beetle Leafminers Loopers Pepper weevil Plant Bug Stink Bug Thrips Tomato Hornworm Tomato Pinworm Vegetable Leafminer Whitefly	2.8 to 8.5	0.033 to 0.100	Thorough coverage is necessary to attain acceptable control. Make application at the onset of infestation reaching locally determined economic thresholds. Apply in a minimum of 2.0 gal/A finished spray by air or in a minimum of 10.0 gal/A with ground equipment. When applying by air, 1.0 to 2.0 qt of emulsified oil may be substituted for 1.0 to 2.0 qt of water in the finished spray.
Banks Grass Mite Broad Mite Carmine Mite <i>Lygus</i> species Pacific Spider Mite Twospotted Spider Mite	6.8 to 8.5	0.08 to 0.10	

Foliar Restrictions:

- Do not make applications less than 7 days apart.
- Do not apply within 7 days of harvest.

PPI & PRE

PEST	USE RATES		METHOD and DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
Army cutworm Armyworm species Cutworm species Grubs Root maggot True armyworm Wireworm	3.4 to 8.5	0.04 to 0.10	PPI: This product can be tank mixed and applied with PPI herbicides. Incorporation of this product should not be any deeper than the intended planting depth. Incorporation depth should be close to the intended depth. Post Plant Soil Applied: Apply through drip or drip tape. Apply when soil is moist towards the end of the irrigation run.
	8.5	0.1	PRE: This product can be tank mixed and applied with PRE pesticides. Post Plant Soil Applied: Apply through drip or drip tape. Apply when soil is moist towards the end of the irrigation run.

Eggplant Restrictions:

- Do not apply more than 0.2 pounds bifenthrin acre per season including at-plant, foliar, PPI and PRE applications of this and other bifenthrin-containing products.

GRAPES
 not for use in California

At-plant

PEST	USE RATES		DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
Grape Phylloxera (suppression only) White Grubs Wireworms	8.5	0.1	Apply at time of planting over an open furrow in sufficient water for planting. May be applied through transplant water at time of transplanting.

Foliar

PEST	USE RATES		DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
Cutworms Eastern Grape Leafhopper Grape Berry Moth Grapevine root borer Japanese Beetles Adults Lady Beetle (<i>Scymnus</i> spp.) Variegated Leafhopper Western Grape Leafhopper	4.3 to 8.5	0.05 to 0.10	Thorough coverage is necessary to attain acceptable control. Make application at the onset of infestation reaching locally determined economic thresholds. Apply in a minimum of 10.0 gal/A of finished spray by air or in a minimum of 25.0 gal/A of finished spray with ground equipment. When applying by air, 1.0 to 2.0 qt of emulsified oil may be substituted for 1.0 to 2.0 qt of water in the finished spray.
Black Vine Weevil Glassy-winged Sharpshooter Twospotted Spider Mite	8.5	0.1	When pest pressure is moderate to severe, use higher rate.

Foliar Restrictions:

- Do not apply within 30 days of harvest.

PPI (Site Preparation) & PRE

PEST	USE RATES		METHOD and DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
Grape Phylloxera (suppression only) Vine Mealybug	8.5	0.10	Post Plant Soil Applied: Apply through drip or Drop Tape. Apply when soil is moist towards the end of the irrigations run. PPI: This product can be tank mixed and applied with PPI pesticide labeled for site preparation. Incorporation of this product should not be any deeper than the intended planting depth. Incorporation depth should be close to the intended depth. PRE: This product can be tank mixed and applied with PRE pesticides.

Grape Restrictions:

- Do not apply more than 0.1 pounds bifenthrin per acre per season including at-plant, foliar, PPI and PRE applications of this and other bifenthrin-containing products.

GRASS FORAGE, FODDER, AND HAY GROUP AND GRASS GROWN FOR SEED, PASTURE AND RANGELAND

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

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

At-Plant

PEST	USE RATES			DIRECTIONS
	Fl oz/A	Fl oz/1,000 lin ft	Lb bifenthrin/A	
Army cutworm Wireworm	8.5	0.39	0.10	Apply as a 5- to 7-inch band over the row on the soil surface, a 5- to 7-inch band over the open furrow (T-band), or in-furrow with the seed. Apply in a minimum of 5.0 gal/A when applied as in in-furrow or T-band application. For control of Army cutworm, Cutworm species, True armyworm, or Armyworm species, apply broadcast over the soil surface.
Cutworm species Grape colaspis Grubs Root maggot True armyworm Wireworm				

Foliar

PEST	USE RATES		DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
Alfalfa Caterpillar Alfalfa Looper Alfalfa Weevil Ant spp. Armyworm, fall Armyworm, southern Armyworm, true Armyworm, yellow-striped Banks Grass Mite Black Grass Bug Blue Alfalfa Aphid ¹ Carmine Mite Cereal Leaf Beetle Chinch Bug Cricket Cutworms Egyptian Alfalfa Weevil (larvae & adult) Flea Beetles Grass Mealybug Grasshoppers Green Cloverworm Green Peach Aphid ¹	8.5	0.1	Apply as insects appear in sufficient volume of water to ensure thorough coverage of foliage. Use higher recommended dosage for increased pest pressure or for increased residual pest control. Do not exceed maximum allowable rate. Apply in a minimum of 2.0 gal/A of finished spray by air or in a minimum of 10.0 gal/A with ground equipment. Higher volumes of finished spray may improve insect control under high temperatures, when foliage is dense and/or when insect pressure is high.

PEST	USE RATES		DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
Hornworms Hunting Bill Bug Lygus species Meadow Spittlebug Pea Aphid ¹ Plant Bug species Potato Leafhopper Range caterpillar Spotted Alfalfa Aphid ¹ Stink Bugs Threecornered Alfalfa Hopper Velvetbean Caterpillar Webworms	8.5	0.1	

¹ Aphid control may be variable depending on species present and host-plant relationships

Foliar Restrictions:

- Do not apply within 30 days of harvest for forage and hay.
- Do not make applications less than 14 days apart.

PPI & PRE

PEST	USE RATES		METHOD and DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
Army cutworm Armyworm species Cutworm species Grape colaspis Grubs Root maggot True armyworm Wireworm (PPI only)	8.5	0.1	PPI: This product can be tank mixed and applied with PPI-labeled herbicides. Incorporation of this product should not be any deeper than the intended planting depth and no deeper than 3 inches. Incorporation depth should be close to the intended seed planting depth. Apply in a minimum of 10.0 gal/A.
	8.5	0.1	PRE: This product can be tank mixed and applied with PRE pesticides. Apply in a minimum of 10.0 gal/A.

Grass Forage, Fodder, Hay Group and Grass Grown for Seed, Pasture, and Rangeland Restrictions:

- Do not apply more than 0.2 pounds bifenthrin to Grass Forage, Fodder, Hay Group and Grass Grown for Seed, Pasture, and Rangeland including at-plant, foliar, PPI, and PRE applications of this and other bifenthrin-containing products.

GROUNDCHERRIES, TOMATILLOS, & TOMATOES

At-Plant

PEST	USE RATES			DIRECTIONS
	Fl oz/A	Fl oz/1,000 lin ft	Lb bifenthrin/A	
Army cutworm Armyworm species Cutworm species Flea beetle larvae Grubs Root maggot Stalkborer True armyworm Wireworm	3.4 to 6.8	0.2 to 0.39	0.04 to 0.08	Apply as a 5- to 7-inch band over the row on the soil surface, a 5- to 7-inch band over the open furrow (T-band), or in-furrow with the transport or seed. May be applied through transplant water at time of transplanting. For control of Army cutworm, Armyworm species, Cutworm species, Stalkborer, or True armyworm, apply broadcast to the soil surface.

At-plant Restrictions:

- Do not apply more than 0.1 lb bifenthrin/A per season as an at-plant application.

Foliar

PEST	USE RATES		DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
Aphids Armyworms (including Beet) Bean Leaf Beetle Cabbageworm Carmine Mite Cloverworm Corn earworm Corn Rootworm Cucumber Beetles Cutworms Diamondback Moth European Corn Borer Flea Beetles Flea Hopper Grasshopper Japanese Beetle (Adult) Leafhoppers Loopers Lygus species Melonworm Pea Weevil Pea Leaf Weevil Pickeworm Plant Bug Rindworm Salt Marsh Caterpillar Sap Beetle Seedpod Weevil Squash Bugs Stink bug species Tobacco Budworm Tarnished Plant Bug Thrips Whitefly Yellowstriped Armyworm	2.8 to 6.8	0.033 to 0.08	Thorough coverage is essential to attain acceptable control. Make application at the onset of infestation reaching locally determined economic levels. Apply in water. Apply the specified dosage in 5.0 to 50.0 gal/A of finished spray by air or 10.0 to 50.0 gal/A of finished spray by ground.

PEST	USE RATES		DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
Twospotted Spider Mite	6.8 to 8.5	0.08 to 0.10	

Foliar Restrictions:

- Do not make applications less than 10 days apart.
- Do not apply within 1 day of harvest.

PPI & PRE

PEST	USE RATES		METHOD and DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
Army cutworm Armyworm species Cutworm species Flea beetle larvae Garden symphylans Grubs True Armyworm Wireworm	3.4 to 6.8	0.04 to 0.08	PPI: This product can be tank mixed and applied with PPI herbicides. Incorporation of this product should not be any deeper than the intended planting depth and no deeper than 3 inches. Incorporation depth should be close to the intended seed planting depth. Post Plant Soil Applied: Apply through drip or drip tape. Apply when soil is moist towards the end of the irrigation run.
	6.8	0.08	PRE: This product can be tank mixed and applied with PRE herbicides. Post Plant Soil Applied: Apply through drip or drip tape. Apply when soil is moist towards the end of the irrigation run.

Groundcherry, Tomatillo, and Tomato Restrictions:

- Do not apply more than 0.4 pounds bifenthrin per acre per season including at-plant, foliar, PPI, and PRE applications of this and other bifenthrin-containing products.

HOPS not for use in California

At-plant

PEST	USE RATES		DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
Grape colaspis Rootworms Sweet potato flea beetle White grub Wireworms	5.1 to 8.5	0.06 to 0.10	Apply in a T-band that ensures coverage of the entire furrow, immediately prior to planting, or at planting. May also be applied as a soil drench with transplant water at time of transplanting. Apply in a minimum of 10.0 gal/A of spray.

Foliar

PEST	USE RATES		DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
Aphids Armyworms Cutworms Leafrollers Loopers	5.1 to 8.5	0.06 to 0.10	Application by ground: For best results, full coverage is essential. Early season recommend 100 to 150 gal of spray/A. Late season recommend 200 to 250 gal of spray/A.
Root Weevils	4.3 to 8.5	0.05 to 0.10	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 2.0 ft on either side of the plant.
Twospotted Spider Mite	8.5	0.1	Application by air for late season control of twospotted spider mites: Apply no less than 6.4 oz (0.1 lb bifenthrin)/application in a minimum of 10.0 gal/A.

Foliar Restrictions:

- Do not exceed 0.1 lb bifenthrin/A/foliar application.
- Do not make applications less than 21 days apart.
- Do not apply within 14 days of harvest

Lay-By

PEST	USE RATES		DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
Grape colaspis Rootworms White grub Wireworms	5.1 to 8.5	0.06 to 0.10	Apply this product to the transplant area and incorporate with cultivation equipment set to throw soil towards the hill. Apply in a minimum of 10.0 gal/A of spray.

PPI

PEST	USE RATES		DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
Grape colaspis Rootworms White grub Wireworms	5.1 to 8.5	0.06 to 0.10	Apply this product to the transplant area and incorporate to planting depth. Apply in a minimum of 10.0 gal/A of spray. May be applied as a broadcast application or an incorporated band application.

PRE & Post-Plant Soil Applied

PEST	USE RATES		DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
Grape colaspis Rootworms White grub Wireworms	5.1 to 8.5	0.06 to 0.10	Apply through drip or drip tape. Apply when soil is moist towards the end of the irrigation run.

Hops Restrictions:

- Do not exceed 0.3 pounds bifenthrin per acre per season including at-plant, foliar, lay-by, PPI and PRE applications of this and other bifenthrin-containing products.
- Use of ultra-low volume (ULV) application on hops is prohibited.

LEAFY BRASSICAS (Crop Subgroup 5B), TURNIP GREENS

Including: bok choy, broccoli raab, collards, kale, mizuna, mustard greens, mustard spinach, rape greens, turnip greens

At-Plant

PEST	USE RATES			DIRECTIONS
	Fl oz/A	Fl oz/1,000 lin ft	Lb bifenthrin/A	
Army cutworm Armyworm species Cutworm species Grubs Lettuce root aphid Root maggot True armyworm Wireworm	3.4 to 6.8	0.20 to 0.39	0.04 to 0.08	Apply as a 5- to 7- inch band over the row on the soil surface, 5- to 7-inch band (T-band) over an open furrow, or in-furrow with the seed or transplant. May be applied through transplant water at time of transplanting
Rootworm larvae	6.8 to 8.5	0.39 to 0.49	0.08 to 0.10	For control of Army cutworm, Armyworm species, Cutworm species, or True armyworm, apply broadcast to the soil surface.

At-plant Restrictions:

- Do not apply more than 0.1 lb bifenthrin/A per season as an at-plant application.

Foliar

PEST	USE RATES		DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
Aphids Armyworms Corn Earworm Crickets Cutworms Cucumber Beetles Diamondback Moth Flea Beetles Grasshoppers Ground Beetles Imported Cabbageworm Japanese Beetle (adult) Leafhoppers Loopers Saltmarsh Caterpillar Stink Bugs Thrips Tobacco Budworm Whitefly Wireworm (adults)	2.8 to 8.5	0.033 to 0.100	Thorough coverage is essential to attain acceptable control. Make application at the onset of infestation reaching locally determined economic thresholds. Apply in a minimum of 2.0 gal/A of finished spray by air or in a minimum of 10.0 gal/A with ground equipment. When applying by air, 1.0 to 2.0 qt of emulsified oil may be substituted for 1.0 to 2.0 qt of water in the finished spray.
Banks Grass Mite Carmine Mite Lygus Species Pacific Spider Mite Twospotted Spider Mite	6.8 to 8.5	0.08 to 0.10	

Foliar Restrictions:

- Do not make applications less than 7 days apart.
- Do not apply within 7 days of harvest.

PPI & PRE

PEST	USE RATES		METHOD and DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
Army cutworm Armyworm species Cutworm species Flea beetle larvae Grubs Lettuce root aphid Root Maggots True Armyworm Wireworms	3.4 to 6.8	0.04 to 0.08	PPI: This product can be tank mixed and applied with PPI-labeled herbicides. Incorporation of this product should not be any deeper than the intended planting depth. Incorporation depth should be close to the intended depth. Post Plant Soil Applied: Apply through drip or drip tape. Apply when soil is moist towards the end of the irrigation run.
	3.4 to 6.8	0.04 to 0.08	PRE: This product can be tank mixed and applied with PRE pesticides. Post Plant Soil Applied: Apply through drip or drip tape. Apply when soil is moist towards the end of the irrigation run.

Leafy Brassica (Crop Subgroup 5B) and Turnip Greens Restrictions:

- Do not apply more than 0.4 pounds bifenthrin per acre per season including at-plant, foliar, PRE and PPI applications of this and other bifenthrin-containing products.

**LEAFY PETIOLE VEGETABLES (Crop Subgroup 4B)
not for use in California**

Including: cardoon, celery, celtuce, chinese celery, florence fennel, rhubarb, Swiss chard

At-plant

PEST	USE RATES		DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
Cutworm spp. Garden Symphlans Lettuce Root Aphid	3.4 to 8.5	0.04 to 0.10	Apply as a 5- to 7-inch band (T-band) over an open furrow, or in-furrow with the seed. May be applied through transplant water at time of transplanting.

Foliar

PEST	USE RATES		DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
Aphids Armyworms Corn Earworm Crickets Cucumber Beetles Cutworms Diamondback Moth Flea Beetles Ground Beetles Imported Cabbageworm Leafhoppers Loopers Saltmarsh Caterpillar Stink Bugs Thrips Tobacco Budworm Whitefly Wireworm (adults)	3.4 to 8.5	0.04 to 0.10	Thorough coverage is essential to attain acceptable control. Make application at the onset of infestation reaching locally determined economic thresholds. Apply in a minimum of 2.0 gal/A of finished spray by air or in a minimum of 10.0 gal/A of finished spray with ground equipment. When applying by air, 1.0 to 2.0 qt of emulsified oil may be substituted for 1.0 to 2.0 qt of water in the finished spray.
Banks Grass Mite Carmine Mite Lygus species Pacific Spider Mite Twospotted Spider Mite	6.8 to 8.5	0.08 to 0.10	

Foliar Restrictions:

- Do not make applications less than 7 days apart.
- Do not apply within 7 days of harvest.

PPI & PRE

PEST	USE RATES		METHOD and DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
Army cutworm Armyworm species Cutworm species Flea beetle larvae Grubs True Armyworm Wireworm	8.5	0.1	PPI: This product can be tank mixed and applied with PPI-labeled herbicides. Incorporation of this product should not be any deeper than the intended planting depth. Incorporation depth should be close to the intended depth.
	3.4 to 8.5	0.04 to 0.10	PRE: This product can be tank mixed and applied with PRE pesticides.

Leafy Petiole Restrictions:

- Do not apply more than 0.5 pounds bifenthrin per acre per season including at-plant, foliar, PRE and PPI applications of this and other bifenthrin-containing products.

LETTUCE (HEAD)

At-Plant

PEST	USE RATES			DIRECTIONS
	Fl oz/A	Fl oz/1,000 lin ft	Lb bifenthrin/A	
Army cutworm Armyworm species Bulb mites Cutworm species Grubs Lettuce root aphid Root maggot True armyworm Wireworm	3.4 to 6.8	0.20 to 0.39	0.04 to 0.08	Apply as a 5- to 7- inch band over the row on the soil surface, 5- to 7-inch band (T-band) over an open furrow, or in-furrow with the seed or transplant. May be applied through transplant water at time of transplanting. For control of Army cutworm, Armyworm species, Bulb mites, Cutworm species, or True armyworm, apply broadcast to the soil surface.
Rootworm larvae	6.8 to 8.5	0.39 to 0.49	0.08 to 0.10	

At-plant Restrictions:

- Do not apply more than 0.1 lb bifenthrin/A per season as an at-plant application.

Foliar

PEST	USE RATES		DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
Aphids Armyworms Corn earworm Cucumber Beetles Cutworms Diamondback Moth Flea Beetles Imported Cab-bageworm Leafhoppers Loopers Salt Marsh Caterpillar Stink Bug species Tobacco Budworm Whitefly	2.8 to 8.5	0.033 to 0.100	Apply in water as necessary for insect control using a minimum of 15.0 gal/A of finished spray with ground equipment and 5.0 gal/A by air. When applying by air, 1.0 to 2.0 qt of emulsified oil may be substituted for 1.0 to 2.0 qt of water in the finished spray. Thorough coverage is essential to achieve control.
Carmine Mite <i>Lygus</i> Species Twospotted Spider Mite	6.8 to 8.5	0.08 to 0.10	

Foliar Restrictions:

- Do not make applications less than 7 days apart.
- Do not apply within 7 days of harvest.

PPI

PEST	USE RATES	
	Fl oz/A	Lb bifenthrin/A
Garden Symphians Lettuce Root Aphid	6.8 to 8.5	0.08 to 0.10

Head Lettuce Restrictions:

- Do not apply more than 0.5 pounds bifenthrin per acre per season including at-plant, foliar, PRE and PPI applications of this and other bifenthrin-containing products.

MAYHAW

not for use in California

Foliar

PEST	USE RATES		DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
Plum Curculio	6.8 to 8.5	0.08 to 0.10	Apply foliar treatments in at least 28.0 gal/A.

Foliar Restrictions:

- Apply no more than once every 7 days.
- Do not apply within 30 days of harvest.

PPI & PRE

PEST	USE RATES		METHOD and DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
White Grub Wireworm	8.5	0.1	PPI: This product can be tank mixed and applied with PPI-labeled herbicides. Incorporation of this product should not be any deeper than the intended planting depth. Incorporation depth should be close to the intended depth. PRE: This product can be tank mixed and applied with PRE pesticides.

Mayhaw Restrictions:

- Do not apply more than 0.2 pounds bifenthrin per acre per season including at-plant, foliar, PPI, and PRE applications of this and other bifenthrin-containing products.

OKRA

At-Plant

PEST	USE RATES			DIRECTIONS
	Fl oz/A	Fl oz/1,000 lin ft	Lb bifenthrin/A	
Armyworm Cutworm spp Flea beetle larvae Grape colaspis Root maggot White Grub Wireworm	3.4 to 6.8	0.2 to 0.39	0.04 to 0.08	Apply as a 5- to 7-inch band over the row on the soil surface, a 5- to 7-inch band over the open furrow (T-band), in-furrow with the seed, or broadcast to the soil surface.

At-plant Restrictions:

- Do not apply more than 0.1 lb bifenthrin/A per season as an at-plant application.

Foliar

PEST	USE RATES		DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
Aphids Armyworms Corn earworm Cucumber Beetles Cutworms European Corn Borer Flea Beetles Japanese Beetle (Adult) Leafminers Loopers Stink bugs Thrips Whitefly	2.8 to 8.5	0.033 to 0.100	Apply as needed using sufficient water to obtain uniform coverage. Apply with ground equipment using a minimum of 10.0 gal/A of finished spray or a minimum of 2.0 gal/A by aircraft.
Broad Mite Carmine Mite <i>Lygus</i> species Twospotted Spider Mite	6.8 to 8.5	0.08 to 0.10	

Foliar Restrictions:

- Do not make applications less than 7 days apart.
- Do not apply within 7 days of harvest.

PPI & PRE

PEST (PPI only unless noted)	USE RATES		DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
Cutworm species (PPI & PRE) Flea beetle larvae Grape colaspis Root maggot White Grub Wireworm	3.4 to 8.5	0.04 to 0.1	This product can be tank mixed and applied with PPI or PRE herbicides. Incorporation of this product should not be any deeper than the intended planting depth and no deeper than 3 inches. Incorporation depth should be close to the intended seed planting depth.

Okra Restrictions:

- Do not apply more than 0.2 pounds bifenthrin per acre per season including at-plant, foliar, PPI, and PRE applications of this and other bifenthrin-containing products.

PEANUT not for use in California

At-Plant

PEST	USE RATES			DIRECTIONS
	Fl oz/A	Fl oz/1,000 lin ft	Lb bifenthrin/A	
Aphids Leafhoppers Thrips Wireworms	6.8 to 8.5	0.39 to 0.49	0.08 to 0.10	Apply as a 5- to 7-inch band (T-band) over an open furrow, or in-furrow with the seed.

Foliar

PEST	USE RATES		DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
Beet Armyworm Corn Earworm Cutworm species Fall Armyworm Grasshoppers Green Cloverworm Leafhoppers Lesser Cornstalk borer Loopers Rednecked peanut worm Southern Armyworm Southern Corn Rootworm Stink Bugs Threecornered alfalfa hopper Velvetbean caterpillar Yellowstriped armyworm	2.8 to 8.5	0.033 to 0.100	Apply in a minimum of 10.0 gal/A with ground equipment or 2.0 gal/A by aircraft.
Aphids Spider Mites Thrips Whitefly	6.8 to 8.5	0.08 to 0.10	

Foliar Restrictions:

- Do not make applications less than 14 days apart.
- Do not apply within 14 days of harvest.
- Do not feed green immature plants and peanut hay to livestock.

Peanut Restrictions:

- Do not apply more than 0.5 pounds bifenthrin per acre per season including at-plant, foliar PPI, or PRE applications of this and other bifenthrin-containing products.

PEAR not for use in California

Foliar

PEST	USE RATES		DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
Aphids Codling Moth Cutworms Green Fruitworm Leafhoppers Leafminers Leafrollers <i>Lygus</i> species Plant Bugs Plum Curculio San Jose Scale (Crawlers) Stink Bugs Tarnished Plant Bugs	3.4 to 17.1	0.04 to 0.20	Application by ground: Apply as a dilute (minimum of 200 gal/A of finished spray) or concentrate spray in sufficient water (minimum of 50.0 gal/A of finished spray) to provide thorough coverage. Application by air: Apply the specified dosage in a minimum of 10.0 gal/A by air.
Twospotted Spider mite Yellow Mite	5.1 to 17.1	0.06 to 0.20	
European Red Mite	6.8 to 17.1	0.08 to 0.20	

Foliar Restrictions:

- Do not make applications less than 30 days apart.
- Apply up to 14 days prior to harvest.
- Do not graze livestock in treated orchards or cut treated cover crops for feed.

Pear Restrictions:

- Do not apply more than 0.5 pound bifenthrin per acre per season including at-plant, PRE, PPI and foliar applications of this and other bifenthrin-containing products with no more than 0.45 pound bifenthrin per acre applied after petal fall.

PEPPERS (BELL and NON-BELL) & PEPINO**At-Plant**

PEST	USE RATES			DIRECTIONS
	Fl oz/A	Fl oz/1,000 lin ft	Lb bifenthrin/A	
Army Cutworm Armyworm species Cutworm species Flea beetle larvae Grubs Pepper maggot Root aphid Root maggot Stalk borer True armyworm Wireworm	3.4 to 6.8	0.2 to 0.39	0.04 to 0.08	Apply as a 5- to 7-inch band over the row on the soil surface, a 5- to 7-inch band over the open furrow (T-band), or in-furrow with the transplant or seed. May be applied through transplant water at time of transplanting. For control of Army cutworm, Armyworm species, Cutworm species, Stalk borer, or True armyworm: Apply broadcast over the soil surface.

At-plant Restrictions:

- Do not apply more than 0.1 lb bifenthrin/A per season as an at-plant application.

Foliar

PEST	USE RATES		DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
Armyworms (Including Beet) Armyworm, Fall Armyworm, Southern Cabbage Looper Colorado Potato Beetle Corn Earworm Cucumber Beetle Cutworms European Corn Borer Flea Beetle Leafminers Loopers Pepper weevil Plant Bug Stink Bug Thrips Tomato Hornworm Tomato Pinworm Vegetable Leafminer Whitefly Yellowstriped Armyworm	2.8 to 8.5	0.033 to 0.100	Thorough coverage is essential to attain acceptable control. Make application at the onset of infestation reaching locally determined economic thresholds. Apply in a minimum of 2.0 gal/A of finished spray by air or in a minimum of 10.0 gal/A with ground equipment. When applying by air, 1.0 to 2.0 qt of emulsified oil may be substituted for 1.0 to 2.0 qt of water in the finished spray.
Broad Mite Carmine Mite Lygus species Pacific Spider Mite Twospotted Spider Mite	6.8 to 8.5	0.08 to 0.10	

Foliar Restrictions:

- Do not make applications less than 7 days apart.
- Do not apply within 7 days of harvest.

PPI & PRE

PEST	USE RATES		METHOD and DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
Army cutworm Armyworm species Cutworm species Flea beetle larvae Grubs True Armyworm Wireworm	3.4 to 8.5	0.04 to 0.10	PPI: This product can be tank mixed and applied with PPI-labeled herbicides. Incorporation of this product should not be any deeper than the intended planting depth. Incorporation depth should be close to the intended depth. Post Plant Soil Applied: Apply through drip or drip tape. Apply when soil is moist towards the end of the irrigation run.
	8.5	0.1	PRE: This product can be tank mixed and applied with PRE pesticides. Post Plant Soil Applied: Apply through drip or drip tape. Apply when soil is moist towards the end of the irrigation run.

Pepper (Bell and Non-Bell) Restrictions:

- Do not apply more than 0.2 pounds bifenthrin per acre per season including at-plant, foliar PPI, and PRE applications of this and other bifenthrin-containing products.

**ROOT CROPS (Except Sugar Beets and Garden Beets) (Crop Subgroup 1B)
not for use in California**

Including: burdock edible; carrot; celeriac; chervil, turnip rooted; chicory; garden beet; ginseng; horseradish; parsley, turnip rooted; parsnip; radish; radish, oriental; rutabaga; salsify; salsify, black; salsify, spanish; skirret; and turnip.

At-plant

PEST	USE RATES		DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
Crown and Root Aphids Cutworms Flea Beetles Root and Seedcorn Maggots Wireworms	8.5	0.1	Apply as a 5- to 7-inch band (T-band) over an open furrow, or in-furrow with the seed. May be applied through transplant water at time of transplanting.

Foliar

PEST	USE RATES		DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
Aphids Beet Armyworm Celery Leaf Tier Corn Earworm Cross Striped Cabbageworm Cutworms Diamondback Moth European Corn Borer Fall Armyworm Fire Ants Flea Beetles Green Cloverworm Hornworms Imported Cabbageworm Loopers Southern Armyworm Spider Mites Tobacco Budworm Velvetbean Caterpillar Whitefly Yellowstriped Armyworm	6.8 to 8.5	0.08 to 0.10	Thorough coverage is necessary to attain acceptable control. Make application at the onset of infestation reaching locally determined economic thresholds. Apply foliar treatments in at least 25.0 gal/A.

Foliar Restrictions:

- Do not apply more than once every 7 days.
- Do not apply within 21 days of harvest.

PPI & PRE

PEST	USE RATES		METHOD and DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
Crown and Root Aphids Cutworms Flea Beetles Root and Seedcorn Maggots Wireworms	8.5	0.1	PPI: This product can be tank mixed and applied with PPI-labeled herbicides. Incorporation of this product should not be any deeper than the intended planting depth. Incorporation depth should be close to the intended depth.
	8.5	0.1	PRE: This product can be tank mixed and applied with PRE pesticides.

Root Crops Restrictions:

- Do not apply more than 0.5 pounds bifenthrin per acre per season including at-plant, foliar PPI and PRE applications of this and other bifenthrin-containing products.

SOD FARMS

At-plant

PEST	USE RATES		DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
Ants Chinch Bugs ¹ Crickets Cutworms ² Imported Fire Ants ³ Earwigs White Grub Wireworm	8.5	0.1	Apply as a 5- to 7-inch band (1-band) over an open furrow, or in-furrow with the seed.

Foliar

PEST	USE RATES			DIRECTIONS
	Fl oz/A	Fl oz/1000 lin ft	Lb bifenthrin/A	
Armyworms ² Cutworms ² Sod Webworm ²	2.8 to 4.35	0.066 to 0.100	0.033 to 0.050	Apply as a broadcast treatment. Use higher volumes up to 10.0 gal of carrier/1000 sq ft to get uniform coverage when treating dense grass foliage. Irrigation to treated area within a few hours following application can improve efficacy to sub-surface pests including mole crickets.
Annual Bluegrass Weevil (Hyperodes) (Adult) ⁴ Banks Grass Mite ⁵ Billbugs (Adult) ⁶ Black Turfgrass Ataenius (Adult) ⁷ Crickets Earwigs Fleas (Adult) Grasshoppers Mealybugs Mites ⁵	4.35 to 8.7	0.1 to 0.2	0.05 to 0.10	The application rates listed in the following table will provide excellent control of the respective pests under typical conditions. However, at the discretion of the applicator, this product may be applied at up to 0.4 fl oz/1000 sq ft to control each of the pests listed in this table. The higher application rates should be used when maximum residual control is desired or heavy pest populations occur.
Ants Chinch Bugs ¹ Fleas (Larvae) ⁸ Imported Fire Ants ³ Japanese Beetle (Adult) Mole Cricket (Adult) ⁹ Mole Cricket (Nymph) ¹⁰ Ticks ¹¹	8.70 to 17.42	0.2 to 0.4	0.1 to 0.2	

PPI & PRE

PEST	USE RATES		METHOD and DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
Ants Chinch Bugs ¹ Crickets Cutworms ² Earwigs Imported Fire Ants ³ White Grub Wireworm	8.5	0.1	PPI: This product can be tank mixed and applied with PPI-labeled herbicides. Incorporation of this product should not be any deeper than the intended planting depth and no deeper than 3 inches. Incorporation depth should be close to the intended seed planting depth.
	8.5	0.1	PRE: This product can be tank mixed and applied with PRE pesticides.

¹ **Chinch Bugs:** Chinch Bugs infest the base of grass plants and are often found in the thatch layer. Irrigation of the grass area before treatment will optimize the penetration of the insecticide to the area where the chinch bugs are located. Use higher volume applications if the thatch layer is excessive or if a relatively long mowing height is being maintained. Chinch Bugs can be one of the most difficult pests to control in grasses and the higher application rates (up to 0.4 fl oz/1000 sq feet) may be required to control populations that contain both nymphs and adults during the middle of the summer.

² **Armyworms, Cutworms and Sod Webworms:** To ensure optimum control, delay watering (irrigation) or mowing for 24 hours after application. If the grass area is being maintained at a mowing height of greater than 1 inch, then higher application rates (up to 0.4 fl oz./1000 sq ft) may be required during periods of high pest pressure.

³ **Imported Fire Ants:** Control will be optimized by combining broadcast applications that will control foraging workers and newly mated fly-in queens with mound drenches that will control existing colonies. If the soil is not moist, then it is important to irrigate before application or use a high volume application. Broadcast treatments should apply 0.4 fl oz/1000 square feet. Mounds should be treated by diluting 0.05 fl oz product/gal of water and applying 1 to 2 gal of finished spray/mound. The mounds should be treated with sufficient force to break their apex and allow the insecticide solution to flow into the ant tunnels. A 4-ft-diameter circle around the mound should also be treated. For best results, apply in cool weather (65 - 80°F) or in early morning or late evening hours.

⁴ **Annual Bluegrass Weevil (Hyperodes) adults:** Applications should be timed to control adult weevils as they leave their overwintering sites and move into grass areas. This movement generally begins when Forsythia is in full bloom and concludes when flowering dogwood (*Cornus florida*) is in full bloom. Consult your State Cooperative Extension Service for more specific information regarding application timing.

⁵ **Mites:** To ensure optimal control of eriophyid mites, apply in combination with the labeled application rate of a surfactant. A second application, 5 to 7 days after the first, may be necessary to achieve acceptable control.

⁶ **Billbug adults:** Applications should be made when adult billbugs are first observed during April and May. Degree day models have been developed to optimize application timing. Consult your State Cooperative Extension Service for information specific to your region. In temperate regions, spring applications targeting billbug adults will also provide control of over-wintered chinch bugs.

⁷ **Black Turfgrass Ataenius adults:** Applications should be made during May and July to control the 1st and 2nd generation of black turfgrass atenaenius adults, respectively. The May application should be timed to coincide with the full bloom stage of Vanhoutte spiraea (*Spiraea vanhouttei*) and horse chestnut (*Aesculus hippocastanum*). The July application should be timed to coincide with the blooming of Rose of Sharon (*Hibiscus syriacus*).

⁸ **Flea larvae:** Flea larvae develop in the soil of shaded areas that are accessible to pets or other animals. Use a higher-volume application when treating these areas to ensure penetration of the insecticide into the soil. Note: if the lawn area is being treated with this product at 0.1 fl oz/1000 sq ft for adult flea control, then the larval application rate may be achieved by increasing the application volume 2- to 4-fold.

⁹ **Mole Cricket adults:** Achieving acceptable control of adult mole crickets is difficult because preferred grass areas are subject to continuous invasion during the early spring by this extremely active stage. Applications should be made as late in the day as possible and should be watered in with up to 0.5 in water immediately after treatment. If the soil is not moist, then it is important to irrigate before application to bring the mole crickets closer to the soil surface where contact with the insecticide will be maximized. Grass areas that receive pressure from adult mole crickets should be treated at peak egg hatch to ensure optimum control of subsequent nymph populations (see note 10).

¹⁰ **Mole Cricket nymphs:** Grass areas that received intense adult mole cricket pressure in the spring should be treated immediately prior to peak egg hatch. Optimal control is achieved then, because young nymphs are more susceptible to insecticides and they are located near the soil surface where the insecticide is most concentrated. Control of larger, more damaging, nymphs later in the year may require both higher application rates and more frequent applications to maintain acceptable control. Applications should be made as late in the day as possible and should be watered in with up to 0.5 in water immediately after treatment. If the soil is not moist, then it is important to irrigate before application to bring the mole crickets closer to the soil surface where contact with the insecticide will be maximized.

¹¹ **Ticks (Including ticks that may transmit Lyme Disease and Rocky Mountain Spotted Fever):** Do not make spot applications. Treat the entire area where exposure to ticks may occur. Use higher spray volumes when treating areas with dense ground cover or heavy leaf litter. Ticks may be reintroduced from surrounding areas on host animals.

Retreatment may be necessary to achieve and/or maintain control during periods of high pest pressure. Repeat application is necessary only if there are signs of renewed activity. Repeat application must be limited to no more than once per 7 days.

Deer ticks (*Ixodes* sp.) have a complicated life cycle that ranges over a 2-year period and involves 4 life stages. Applications should be made in the late fall and/or early spring to control adult ticks that are usually located on brush or grass above the soil surface and in mid to late spring to control larvae and nymphs that reside in the soil and leaf litter.

American dog ticks may be a considerable nuisance in suburban settings, particularly where homes are built on land that was previously field or forest. These ticks commonly congregate along paths or roadways where humans are likely to be encountered. Applications should be made as necessary from mid-spring to early fall to control American dog tick larvae, nymphs and adults.

Sod Farm Restrictions:

- In New York State, this product may NOT be applied to any grass or turf area within 100 feet of a water body (lake, pond, river, stream, wetland, or drainage ditch).
- In New York State, 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.

SOYBEANS not for use in California

At-Plant

PEST	USE RATES			DIRECTIONS
	Fl oz/A	Fl oz/1,000 lin ft	Lb bifenthrin/A	
Rootworm larvae	6.8 to 8.5	0.39 to 0.49	0.08 to 0.10	Apply as a 5-to 7-inch band over the row on the soil surface, 5- to 7-inch band (T-band) over an open furrow, or in-furrow with the seed. For control of Army worm, Armyworm species, Cutworm species, or True armyworm, apply broadcast over the soil surface.
Army cutworm Armyworm species Bean Leaf Beetle Larvae Cutworm species Grape colaspis Grubs Root maggot Seed corn beetle Seedcorn maggot True armyworm Wireworm	3.4 to 6.8	0.20 to 0.39	0.04 to 0.08	

At-plant Restrictions:

- Do not apply more than 0.1 lb bifenthrin/A per season as an at-plant application.

Foliar

PEST	USE RATES		DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
Alfalfa Caterpillar Aphids Armyworms Bean Leaf Beetle Blister Beetle species Corn Earworm Corn Rootworm Adult Cowpea Curculio Cucumber Beetle Adult Cutworms Dectes Stem Borer European Corn Borer False Cinch Bug Flea Beetle Grasshoppers Green cloverworm Hornworms Imported Cabbageworm Japanese Beetle Adult Leaf Skeletonizer species Leafhoppers Leafminers Adults Lesser Cornstalk Borer Loopers Kudzu Bug Mexican Bean Beetle Painted Lady (Thistle) Caterpillar Pea Leaf Weevil Saltmarsh Caterpillar Seedcorn Maggot Adult Silverspotted Skipper Spittlebug Stink Bug Three Cornered Alfalfa Hopper Thrips Tobacco Budworm Velvetbean Caterpillar Webworm Woollybear Caterpillar	2.8 to 8.5	0.033 to 0.100	Apply in a minimum of 10.0 gal/A with ground equipment or 2.0 gal/A by aircraft. 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.
<i>Lygus</i> species Twospotted Spider Mite Whitefly	6.8 to 8.5	0.08 to 0.10	

Foliar Restrictions:

- Do not make applications less than 30 days apart.
- Do not apply within 18 days of harvest.

PPI & PRE

PEST (PPI only unless noted)	USE RATES		METHOD and DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
Armyworm species (PRE and PPI) Bean leaf beetle larvae Black Cutworm (PRE and PPI) Seed corn beetle Seed corn maggot Stalkborer larvae White grub Wireworm	4.0 to 5.3	0.047 to 0.062	PPI: This product can be tank mixed and applied with PPI herbicides. Incorporation of this product should not be any deeper than the intended planting depth and no deeper than 3 inches. Incorporation depth should be close to the intended seed planting depth.
	3.4	0.04	PRE: This product can be tank mixed and applied with PRE herbicides.

Soybean Restrictions:

- Do not apply more than 0.3 lb bifenthrin/A per season including at-plant, foliar, PPI, and PRE applications of this and other bifenthrin-containing products.

SPINACH
At-Plant

PEST	USE RATES			DIRECTIONS
	Fl oz/A	Fl oz/1,000 lin ft	Lb bifenthrin/A	
Garden Symphylans Rootworm larvae	6.8 to 8.5	0.39 to 0.49	0.08 to 0.10	Apply as a 5- to 7- inch band over the row on the soil surface, 5- to 7- inch band (F-band) over an open furrow, or in-furrow with the seed.
Army cutworm Armyworm species Cutworm species Grubs Root maggot Seedcorn maggot True armyworm Wireworm	3.4 to 6.8	0.20 to 0.39	0.04 to 0.08	For control of Army cutworm, Armyworm species, Cutworm species, or True armyworm, apply broadcast to the soil surface.

At-plant Restrictions:

- Do not apply more than 0.1 lb bifenthrin/A per season as an at-plant application.

Foliar

PEST	USE RATES		DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
Armyworms Colorado Potato Beetle Corn earworm Cucumber Beetles Cutworms European Corn Borer Fla Beetles Leafminers Loopers Pepper Weevil Tomato Hornworm Tomato Pinworm Thrips Whitefly	2.8 to 8.5	0.033 to 0.100	Apply the specified dosage in 5.0 to 50.0 gal/A of finished spray by air or 10.0 to 50.0 gal/A of finished spray by ground. For control of fire ants, apply this product to the soil (at planting) or as a foliar treatment by ground or air at rates of up to 0.1 lb bifenthrin/A at minimum 7-day intervals up to a maximum of 4 applications. For control of whiteflies, apply foliar treatments of this product by ground or air at rates of up to 0.1 lb bifenthrin/A at minimum 7-day intervals up to a maximum of 4 applications. Do not apply within 40 days of harvest.
Banks Grass Mite Broad Mite Carmine Mite Fire Ants <i>Lygus</i> species Pacific Spider Mite Twospotted Spider Mite	6.8 to 8.5	0.08 to 0.10	

Foliar Restrictions:

- Do not make applications less than 7 days apart.
- Do not apply within 40 days of harvest.

PPI

PEST	USE RATES	
	Fl oz/A	Lb bifenthrin/A
Garden Symphians Seed Corn Maggot Wireworms	3.4 to 6.8	0.04 to 0.08

Spinach Restrictions:

- Do not apply more than 0.4 pounds bifenthrin per acre per season including at-plant, foliar, PPI, and PRE applications of this and other bifenthrin-containing products.

SUCCULENT PEAS AND BEANS (Crop Subgroups 6A and 6B)

Includes: 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, purple hull pea, southern pea, yardlong bean; jackbean; pea (*Pisum* spp.): dwarf pea, edible-pod pea, english pea, garden pea, green pea, pigeon pea, snow pea, sugar snap pea; soybean (immature seed); and sword bean.

At-Plant

PEST	USE RATES			DIRECTIONS
	Fl oz/A	Fl oz/1,000 lin ft	Lb bifenthrin/A	
Army cutworm Armyworm species Cutworm species Grape colaspis Grubs Root maggot Seedcorn maggot True armyworm Wireworm	3.4 to 6.8	0.20 to 0.39	0.04 to 0.08	Apply as a 5- to 7- inch band over the row on the soil surface, 5- to 7-inch band (T-band) over an open furrow, or in-furrow with the seed.

PEST	USE RATES			DIRECTIONS
	Fl oz/A	Fl oz/1,000 lin ft	Lb bifenthrin/A	
Rootworm larvae	6.8 to 8.5	0.39 to 0.49	0.08 to 0.10	For control of Army cutworm, Armyworm species, Cutworm species, or True armyworm, apply broadcast to the soil surface.

At-plant Restrictions:

- Do not apply more than 0.1 lb bifenthrin/A per season as an at-plant application.

Foliar

PEST	USE RATES		DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
Aster Flea Beetle Leafhopper	2.1 to 8.5	0.025 to 0.100	Apply in a minimum of 2.0 gal/A finished spray by air or in a minimum of 10.0 gal/A with ground equipment. When applying by air, 1.0 to 2.0 qt emulsified oil may be substituted for 1.0 to 2.0 qt water in the finished spray. Thorough coverage is essential to achieve control. Make application at the onset of infestation reaching locally determined economic threshold.
Adult Sap Beetle Alfalfa Caterpillar Aphids	2.8 to 8.5	0.033 to 0.100	
Armyworm, Beet Armyworm, Fall Armyworm, Southern Armyworm, Yellowstriped Bean Leaf Beetle Cloverworm Corn earworm Corn Rootworm Adult Cucumber Beetle Cutworms European Corn Borer Grasshoppers Japanese Beetle Loopers Pea Leaf Weevil Pea Weevil Plant Bug Stink Bugs Tarnished Plant Bug Thrips Webworms Western Bean Cutworm Whitefly			
Banks Grass Mite Carmine Mite <i>Lygus</i> species Twospotted spider mite	6.8 to 8.5	0.08 to 0.10	

Foliar Restrictions:

- Do not apply within 3 days of harvest.
- Do not make applications less than 3 days apart.

PPI & PRE

PEST	USE RATES		METHOD AND DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
Army cutworm species Armyworm species Cutworm species Grape colaspis Grubs Root maggot True armyworm Wireworm (PPI only)	6.8 to 8.5	0.08 to 0.10	PPI: This product can be tank mixed and applied with PPI herbicides. Incorporation of this product should not be any deeper than the intended planting depth and no deeper than 3 inches. Incorporation depth should be close to the intended seed planting depth. Apply in a minimum of 10.0 gal/A. Post Plant Soil Applied: Apply through drip or drip tape. Apply when soil is moist towards the end of the irrigation run.
	6.8 to 8.5	0.08 to 0.10	PRE: This product can be tank mixed and applied with PRE herbicides. Post Plant Soil Applied: Apply through drip or drip tape. Apply when soil is moist towards the end of the irrigation run.

Succulent Peas and Beans (Crop Subgroups 6A and 6B) Restrictions:

- Do not apply more than 0.2 pounds bifenthrin per acre per season including at-plant, PRE, PPI and foliar applications of this and other bifenthrin-containing products.

TABACCO

At-Transplant & Pre-Transplant

PEST	USE RATES			DIRECTIONS
	Fl oz/A	Fl oz/1,000 lin ft	Lb bifenthrin/A	
Armyworm species Cutworm species Flea beetle larvae Mole cricket Stalkborer White grubs Wireworm	3.4 to 8.5	0.2 to 0.49	0.04 to 0.10	At-transplant water treatment application: Apply 0.0625 to 0.1000 lb bifenthrin/A in a water treatment application volume of 10.0 to 200 gal/A. Pre-transplant soil applications: Use of suitable equipment to incorporate into top 4 in of the soil is required to control below-ground pests. May be tank mixed with Command, Spartan, and other herbicides approved for tobacco use.

Pre-Transplant & At-Transplant Restrictions:

- Do not apply later than lay-by.

Foliar

PEST	USE RATES		DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
Aphid spp.* Armyworm spp. Chinch Bugs Cutworm spp. Flea Beetle (Adults) Grasshoppers Green Bugs Japanese Beetles Stink Bugs Tarnished plant bugs Thrips Whiteflies	3.4 to 8.5	0.04 to 0.10	Apply 0.04 to 0.10 lb bifenthrin/A/ foliar application up to, and including, lay-by in a minimum of 10.0 gal/A. May be tank mixed with Command, Spartan and other herbicides approved for tobacco use.
Hornworm Tobacco Budworm	6.8 to 8.5	0.08 to 0.10	
<i>Lygus</i> species Spider mites	8.5	0.1	

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

Foliar Restrictions:

- Do not make more than 2 foliar applications per season.
- Do not apply later than layby.

Tobacco Restrictions:

- Do not apply more than 0.2 pounds bifenthrin per acre per season including at-plant, foliar, PRE, and PPI applications of this and other bifenthrin-containing products.

TREE NUTS

not for use in California

Including: African nut-tree; almond; almond, tropical; beechnut; Brazil nut; Brazilian pine; bunya; bur oak; butternut; cajou nut; candlenut; cashew; chestnut; chinquapin; coconut; coquito nut; dika nut; ginkgo; Guiana chestnut; hazelnut (filbert); heartnut; hickory nut; Japanese horse-chestnut; macadamia nut; mongongo nut; monkey-pot; monkey puzzle nut; okari nut; Pachira nut; peach palm nut; pecan; pequi; pili nut; pine nut; pistachio; sapucaia nut; walnut, black; walnut, English; yellowhorn; cultivars, varieties, and/or hybrids of these

Foliar

PEST	USE RATES		DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
Black Pecan Aphid 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 Stink Bugs Walnut Aphid Yellow Pecan Aphid	4.3 to 17.1	0.05 to 0.20	Apply by ground or air equipment using sufficient water to obtain full coverage of foliage. Apply as a dilute (minimum of 200 gal /A of finished spray) or concentrate (minimum of 50.0 gal/A of finished spray) by ground or apply the specified amount in a minimum of 10.0 gal/A of finished spray by air.
European Red Mite Pecan Weevil Spider Mite species	6.8 to 17.1	0.08 to 0.20	
Fire ants Walnut Husk Fly	8.5 to 17.1	0.1 to 0.2	

Foliar Restrictions:

- 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.

Tree Nuts Restrictions:

- Do not apply more than 0.5 pound bifenthrin (1 quart product) per acre per season including at-plant, PRE, PPI and foliar applications of this and other bifenthrin-containing products.

TUBEROUS AND CORM VEGETABLES (Crop Subgroup 1C)

Including: arracacha; arrowroot; artichoke (Chinese and Jerusalem); canna, edible; cassava (bitter and sweet); chayote (root); chufa; dasheen (taro); ginger; leren; potato; potato (sweet); taniar; turmeric; yam bean; yam, true.

At-Plant

PEST	USE RATES		DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
Grape colaspis Rootworms Sweet potato flea beetle White grub Wireworms	12.75 to 25.5	0.15 to 0.30	<p>For the control of sweet potato flea beetle, white grubs, and wireworms, this product may be applied as a soil-incorporated broadcast, directed bed spray or a T-band spray into the planting furrow.</p> <p>Apply this product at the rate of 0.15 to 0.30 lb bifenthrin (12.75 to 25.50 fl oz product)/A in a minimum of 10.0 gal/A of spray.</p>

At-Plant Restrictions:

- Do not apply more than 0.3 lb bifenthrin/A/season as an at-plant application.

Foliar

PEST	USE RATES		DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
Banded cucumber beetle Black flea beetle Corn wireworm Cucumber beetle Japanese beetle grubs May/June beetle Rootworms Southern potato wireworm Sugarcane beetle Sweetpotato flea beetle Sweetpotato weevil Tobacco wireworm White grub Whitefringed beetle	2.8 to 8.5	0.033 to 0.100	<p>Apply in a minimum of 3.0 gal/A of finished spray by air or in a minimum of 10.0 gal/A with ground equipment.</p> <p>For the control of the click beetles (wireworms), cucumber beetles (rootworms), flea beetles (adult life stages), May/June beetles (white grubs), and whitefringed beetles, this product may be applied as a foliar spray.</p>

Foliar Restrictions:

- Do not make more than 2 foliar applications per season.
- Do not make applications less than 21 days apart.
- Do not apply within 21 days of harvest.

Lay-By

PEST	USE RATES		DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
Grape colaspis Rootworms White grub Wireworms	12.75 to 25.50	0.15 to 0.30	<p>This product may be applied as one or more soil directed and incorporated treatments at cultivation or lay-by for the control of wireworms and white grubs.</p> <p>Apply this product to the drill area and incorporate by cultivation equipment set to throw soil towards the drill area. Apply in a minimum of 10.0 gal/A of spray.</p>

PPI

PEST	USE RATES		DIRECTIONS
	Fl oz/A	Lb bifenthrin/A	
Grape colaspis Rootworms White Grub Wireworm	12.75 to 25.50	0.15 to 0.30	<p>Apply this product to the transplant area and incorporate to planting depth. Apply this product in a minimum of 10.0 gal/A of spray. May be applied as a broadcast application or an incorporated band application.</p>

Tuberous and Corm Vegetables (Crop Subgroup 1C) Restrictions:

- Do not apply more than 0.5 pounds bifenthrin per acre per season including at-plant, foliar, lay-by, PPI, and soil applications of this and other bifenthrin-containing products.

STORAGE AND DISPOSAL

PESTICIDE STORAGE: Keep out of reach of children and animals. Keep pesticide in original container. Store in a cool, dry place and avoid excess heat. Do not put concentrate or dilute into food or drink containers.

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

CONTAINER HANDLING: Nonrefillable container. Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state. Once cleaned, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or manufacturer, or contact The Agricultural Container Recycling Council (ACRC) at www.acrecycle.org. If not recycled, then puncture and dispose of in a sanitary landfill, or incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke. Triple rinse or pressure rinse container (or equivalent) promptly after emptying.

For packages up to 5 gallons: 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 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. **Pressure rinse as follows:** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

For packages greater than 5 gallons and less than 56 gallons: Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. **Pressure rinse as follows:** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

For packages greater than 56 gallons: To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. For refillable containers: Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Offer for recycling or reconditioning, if available, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

For help with any spill, leak, fire or exposure involving this material, call day or night CHEMTREC – 1-800-424-9300.

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

BEFORE BUYING OR USING THIS PRODUCT, read the entire Directions for Use and the following Conditions of Sale and Limitation of Warranty and Liability. By buying or using this product, the buyer or user accepts the following Conditions of Sale and Limitation of Warranty and Liability, which no employee or agent of LOVELAND PRODUCTS, INC. or the seller is authorized to vary in any way.

Follow the Directions for Use of this product carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop or other plant injury, ineffectiveness, or other unintended consequences may result from such risks as weather or crop conditions, mixture with other chemicals not specifically identified in this product's label, or use of this product contrary to the label instructions, all of which are beyond the control of LOVELAND PRODUCTS, INC. and the seller. The buyer or user of this product assumes all such inherent risks.

Subject to the foregoing inherent risks, LOVELAND PRODUCTS, INC. warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use when the product is used in strict accordance with such Directions for Use under normal conditions of use. EXCEPT AS WARRANTED IN THIS LABEL AND TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THIS PRODUCT IS SOLD "AS IS," AND LOVELAND PRODUCTS, INC. MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR ELIGIBILITY OF THIS PRODUCT FOR ANY PARTICULAR TRADE USAGE.

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SPECIMEN
INTENTIONALLY LEFT BLANK



SNIPER®

LFR®



For mixing directly with liquid fertilizer to control listed soil insect pests.

ACTIVE INGREDIENT:	BY WT
Bifenthrin:*	17.15%
OTHER INGREDIENTS:	82.85%
TOTAL	100.00%

* *Cis* isomers 97% minimum, *trans* isomers 3% maximum.
This product contains 1.5 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. 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. 34704-1089

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FORMULATED FOR
LOVELAND PRODUCTS, INC.® P.O. BOX 1286 GREELEY, COLORADO 80632-1286

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.

BIFENTHRIN | GROUP 3A | INSECTICIDE

PEEL FILM HERE ↑