

U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs Registration Division (7505P) 1200 Pennsylvania Ave., N.W. Washington, D.C. 20460

91234-182

EPA Reg. Number:

Date of Issuance:

10/2/19

NOTICE OF PESTICIDE:

X Registration
Reregistration
(under FIFRA, as amended)

Term of Issuance: Conditional

Name of Pesticide Product:

A110.05

Name and Address of Registrant (include ZIP Code):

Dr. Dave Bolin Atticus, LLC 5000 CentreGreen Way, Suite 100 Cary, NC 27513

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

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

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

This product is conditionally registered in accordance with FIFRA section 3(c)(7)(A). You must comply with the following conditions:

1. Submit and/or cite all data required for registration/registration/registration review of your product under FIFRA when the Agency requires all registrants of similar products to submit such data.

Signature of Approving Official:	Date:
Jed Herrick	10/2/19
Jacquelyn Herrick, Product Manager 3	
Invertebrate & Vertebrate Branch 1, Registration Division	
(7505P)	

EPA Form 8570-6

- 2. You are required to comply with the data requirements described in the DCI identified below:
 - a. Bifenthrin GDCI-128825

You must comply with all of the data requirements within the established deadlines. If you have questions about the Generic DCI listed above, you may contact the Chemical Review Manager in the Pesticide Reevaluation Division: http://iaspub.epa.gov/apex/pesticides/f?p=chemicalsearch:1

- 3. The data requirements for storage stability and corrosion characteristics (Guidelines 830.6317 and 830.6320) are not satisfied. A one year study is required to satisfy these data requirements. You have 18 months from the date of registration to provide these data.
- 4. Make the following label changes before you release the product for shipment:
 - Revise the EPA Registration Number to read, "EPA Reg. No. 91234-182."
- 5. Submit one copy of the final printed label for the record before you release the product for shipment.

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

If you fail to satisfy these data requirements, EPA will consider appropriate regulatory action including, among other things, cancellation under FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records. Please also note that the record for this product currently contains the following CSFs:

• Basic CSF dated 5/13/2019

If you have any questions, please contact Vanessa Emerson by phone at 703-347-0360, or via email at emerson.vanessa@epa.gov.

Enclosure

ACCEPTED

10/02/2019

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under

91234-182

<Note to reviewer: [Text] in brackets denotes optional language>

<Note to reviewer: {Text} in braces denotes where in the final label text will appear>

<Note to reviewer: <Text> in symbols is informational or explanatory for the reviewer>

{BOOKLET FRONT PANEL LANGUAGE}

RESTRICTED USE PESTICIDE

DUE TO TOXICITY TO FISH AND AQUATIC ORGANISMS

FOR RETAIL SALE TO AND USE ONLY BY CERTIFIED APPLICATORS OR PERSONS UNDER THEIR

DIRECT SUPERVISION, AND ONLY FOR THOSE USES COVERED BY THE CERTIFIED

APPLICATOR'S CERTIFICATION.

GROUP 3 INSECTICIDE

EPA Reg. No.

A110.05^[TM]

[A110.05 is a versatile, broad-spectrum insecticide that can be mixed directly with liquid fertilizers for control of insect and mite pests on agricultural crops. It can be applied as a PPI, atplant, PRE, or as a foliar application.]

KEEP OUT OF REACH OF CHILDREN CAUTION

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.)

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

See inside label booklet for First Aid, Precautionary Statements and Directions for Use.

EPA Reg. No.: 91234-XX

EPA Est.: Net Weight:

Manufactured for: **Atticus. LLC**

5000 CentreGreen Way, Suite 100 Cary, NC 27513

{LANGUAGE INSIDE BOOKLET}

	FIRST AID
If swallowed:	 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 do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.
If on skin or clothing:	 Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
If in eyes:	 Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact SafetyCall at **1-844-685-9173** for emergency medical treatment information.

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.

For Chemical Emergency: Spill, Leak, Fire, Exposure, or Accident, Call CHEMTREC Day or Night

Within USA and Canada: 1-800-424-9300 or +1 703-527-3887 (collect calls accepted)

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Wear protective eyewear. Avoid contact with skin, eyes, or clothing. Remove and wash contaminated clothing before reuse. Wear long-sleeved shirt, long pants, socks, shoes, and protective eyewear. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

Personal Protective Equipment (PPE)

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

- Long-sleeved shirt and long pants;
- Chemical-resistant gloves made of any waterproof material such as polyvinyl chloride, nitrile rubber or butyl rubber;
- Shoes plus socks.

Handlers who may be exposed to the concentrate through mixing, loading, application, or other tasks must wear:

- Long-sleeved shirt and long pants;
- Chemical-resistant gloves made of any waterproof material such as polyvinyl chloride, nitrile rubber or butyl rubber;

- Shoes plus socks;
- Protective eyewear.

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

User Safety Recommendations

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Wash thoroughly with soap and water after handling.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Environmental Hazards

This pesticide is extremely toxic to fish 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 in the treatment area.

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

Physical or Chemical Hazards

Do not mix or allow coming in contact with any oxidizing agent. Hazardous chemical reaction may occur.

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

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), notification to workers, 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 made of any waterproof material such as polyvinyl chloride, nitrile rubber or butyl rubber;
- Shoes plus socks.

Product Restrictions

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. (21pp.)

http://www.nrcs.usda.gov/Internet/FSE DOCUMENTS/nrcs143 023819.pdf

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.

Buffer Zone for Ground Application (groundboom, [chemigation,] or airblast)

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

Rotational Crops

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

Product Use Instructions

A110.05 is a versatile, broad-spectrum insecticide and miticide containing the active ingredient bifenthrin in an optimized SC formulation that is compatible with liquid fertilizers. **A110.05** provides activity against many important crop insect pests and can be used alternated with other insecticides with a different mode of action or tank-mixed with such insecticides and other crop protection products.

Bifenthrin, the active ingredient in **A110.05**, belongs to the pyrethroid class of insecticides. Bifenthrin is a neurotoxin which causes exposed insects to develop hyperexcitation and tremors, followed by paralysis and death. Pyrethroids are classified as GROUP 3 INSECTICIDES.

Integrated Pest Management (IPM)

A110.05 should be used as one component in an integrated pest management program including cultural practices that reduce insect pest pressure. Consult your local extension specialist or certified crop advisor for local best practices to manage insect pests.

Spray Drift Management

All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers.

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, use a coarser droplet size.

Additional Requirements for Aerial Applications

Mount the spray boom on the aircraft so as to minimize drift caused by wingtip or rotor vortices. The

minimum practical boom length to be used 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.

Application and Mixing Instructions

Shake well before use.

A110.05 insecticide and miticide is designed for pre-plant incorporated (PPI), at-plant, preemergence (PRE), banded, broadcast, transplant-water drench, and foliar spray applications, and must be diluted with water and/or liquid fertilizer before application. Refer to Specific Use Directions for Crop Plants for pest control or suppression instructions.

Do not use strainer (nozzle screens) with a mesh designation greater than 50.

Make sure that application equipment is thoroughly cleaned and properly calibrated prior to application and thoroughly cleaned after application.

A110.05 can be mixed directly with water and/or liquid starter or popup fertilizer. Follow liquid fertilizer recommendations regarding seed safety and use guidelines. Conduct a preliminary jar test using the appropriate ratio of fertilizer and **A110.05** (see instructions below). If mixture compatibility is not acceptable, repeat the jar test with an equivalent volume of water added to the liquid fertilizer prior to adding **A110.05**. Do not exceed dilution specified by mixing instructions. For best results, use immediately after mixing. Do not allow a tank mixture to sit overnight. If the mixture settles, agitate the mixture and assess to ensure thorough re-mixing prior to application. Do not store mixtures. Make sure that application equipment is thoroughly cleaned and properly calibrated prior to application and thoroughly cleaned after application.

Use spray nozzles appropriate for the crop to provide full coverage and uniform distribution of the spray mixture.

- Use screens where appropriate to protect sprayer equipment and prevent clogging.
- Screens used to protect pump on the suction side to be no finer than 16-mesh.
- Do not fit the recirculation line of the spray system with a screen.
- Screens used on the spray nozzles are to be no finer than 50-mesh.
- The spray system pump is to have sufficient capacity to deliver 35-40 psi of pressure to the nozzles, and recirculate at least 10% of the tank volume per minute to maintain a uniform mixture
- Agitate the spray mixture with a jet agitator or liquid sparge tube.
- Do not use air sparge.

Consult manufacturers of spray equipment for more information on sprayer use, calibration, and recommendations. Consult state agricultural extension recommendations for local directions and spray schedules.

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

Choose the rate of application within the label ranges for the crop being treated based on expected insect pest pressure. This can be determined by history and scouting of the field and whether weather conditions are expected to be favorable. Use lower rates when insect pest pressure is expected to be light and use higher rates when insect pest pressure is expected to be heavy. Application rates are generally higher in arid climates.

Unless otherwise directed by registered supplemental labeling, follow the Directions for Use in each crop group section.

Mixing Instructions

Solo A110.05 Application

- Determine the required volume of water or liquid fertilizer for application and fill the spray/mixing tank with $\frac{1}{2}$ $\frac{2}{3}$ of this volume.
- Begin agitation of the tank and add the required volume of A110.05 for the insecticide application.
- Continue agitation while adding the remaining ½ ½ volume of water or liquid fertilizer to complete the spray mixture.
- Apply the mixture after the contents of the tank are completely dispersed.
- Maintain agitation of the spray tank until all of the spray mixture has been applied.
- Thoroughly rinse spray tank with water and dispose of the rinse water by spraying onto a section of the already treated crop.

Do not prepare more spray mixture than is required for the treatment. Do not allow a mixture to sit overnight. If the mixture settles, agitate the mixture and assess to ensure thorough re-mixing prior to application. Do not store spray mixtures.

A110.05 Tank Mixture Application

A110.05 may be applied in tank mixtures with adjuvants, micronutrients, and other products approved for use on registered crops. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. Do not combine **A110.05** in the spray tank with pesticides, adjuvants or fertilizers unless compatibility charts or your own prior use has shown that the combination is physically compatible, and the combination is effective and non-injurious to the target crop under your use conditions.

When an adjuvant is used, it is recommended to use an adjuvant that meets the standards of the Chemical Producers and Distributors Association (CPDA) adjuvant certification.

Caution: Test potential mixing partners, including adjuvants, for mixing compatibility using a

standard jar test or other similar method and for crop safety prior to use on a crop. Incompatibilities may exist with some methylated seed oils, crop oil concentrates, or silicone-based adjuvants; conduct jar tests before using.

The following jar test procedure is recommended to evaluate compatibility: Following any product specific instructions for order of addition, pour the recommended proportions of the products into a suitable container, mix thoroughly and allow to stand at least twenty (20) minutes. If the combination remains mixed or can be re-mixed readily, the mixture is considered physically compatible.

Do not prepare more spray mixture than is required for the treatment. For best results, use immediately after mixing. Do not allow a mixture to set overnight. If the mixture settles, agitate the mixture and assess to ensure thorough re-mixing prior to application. Do not store spray mixtures.

Instructions for PPI And PPE Applications

PPI Treatments: PPI herbicides can be tank mixed with **A110.05**. Test for compatibility with jar tests or similar methods before use. Follow all use rate recommendations. Incorporate **A110.05** close to seed planting depth.

PRE Treatments: PRE herbicides can be tank mixed with **A110.05**. Test for compatibility with jar tests or similar methods before use and follow all use rate recommendations.

Instructions for At-Plant and Banded Applications

A110.05 can be applied as a soil-directed application at-plant, as an in-furrow or T-band application, or as an early season banded application over the plant row for control of below ground and surface feeding insect pests. Refer to the use directions for specific crops to determine if such applications are labeled for a given crop and, if so, for which insect pests.

Generally, at-plant in-furrow applications are more effective against below ground feeding insects, whereas T-band and broadcast applications may be more effective against surface feeding insect pests. Check with your local extension specialist or certified crop advisor for specific advice on best local practices for insect control.

At-Plant Application Instructions

Use 3-20 gallons of water or liquid fertilizer per acre for in-furrow or T-band applications.

Direct the 5 -7 inch spray into the furrow just before the seed is covered, unless instructed otherwise under the specific crop instructions.

Use the higher rate if conditions are expected to be favorable for insect pests or mites, or if minimum or no-till practices are being followed.

	At Plant In-Furrow Application Rates (fl oz per acre)										
		0.05 fl	0.08 fl	0.09 fl	0.15 fl	0.16 fl	0.19 fl	0.24 fl	0.38 fl	0.47 fl	0.71 fl
	Row ft	oz per									
Row	per	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Spacing	Acre	row									

		feet									
20	26136	1.2	2.0	2.5	4.0	4.1	5.0	6.2	9.9	12.4	
22	23760	1.1	1.8	2.3	3.6	3.8	4.5	5.6	9.0	11.3	
24	21780	1.0	1.7	2.1	3.3	3.4	4.1	5.2	8.3	10.3	
26	20105	1.0	1.5	1.9	3.0	3.2	3.8	4.8	7.6	9.5	
28	18669	0.9	1.4	1.8	2.8	2.9	3.5	4.4	7.1	8.8	
30	17424	0.8	1.3	1.7	2.6	2.8	3.3	4.1	6.6	8.3	12.4
32	16335	0.8	1.2	1.5	2.5	2.6	3.1	3.9	6.2	7.7	11.6
34	15374	0.7	1.2	1.5	2.3	2.4	2.9	3.6	5.8	7.3	10.9
36	14520	0.7	1.1	1.4	2.2	2.3	2.8	3.4	5.5	6.9	10.3
38	13756	0.7	1.0	1.3	2.1	2.2	2.6	3.3	5.2	6.5	9.8
40	13068	0.6	1.0	1.2	2.0	2.1	2.5	3.1	5.0	6.2	9.3
Linear Row Feet Calculation: 522,720 ÷ row spacing (in inches) = Row feet per acre											

Instructions for Foliar Applications

A110.05 can be applied as a spray to above ground plant parts such as flowers, foliage and fruit. Application in a tank mixture with an adjuvant is recommended to improve wetting. Refer to the use directions for specific crops to determine if such applications are labeled for a given crop and, if so, for which plant parts and which insect pests.

Use higher label rates if insect pest pressure is high, controlling for mites, and/or conditions are expected to be favorable for pest population growth.

Do not apply when conditions favor drift from the area intended for treatment; follow instructions under the Spray Drift section.

Ground Applications

Apply with sufficient water or liquid fertilizer in a manner that provides thorough and uniform coverage to obtain good pest control. Follow spray volume recommendations given under specific crops.

Aerial Applications

Apply with sufficient water or liquid fertilizer in a manner that provides uniform coverage for good pest control. Follow spray volume recommendations given under specific crops. Dense canopies may limit coverage on lower leaves from aerial applications reducing insect pest control on those leaves.

Chemigation Use Directions

<NOTE TO REVIEWER – The Chemigation Use Directions will appear on the final printed commercial

labels when the label includes crops which allow for the application by means of chemigation. If the final printed commercial label only contains crops which do not allow for the application by means of chemigation, the statement "Do not apply this product through any type of irrigation system" will be used instead of Chemigation Use Directions.>

Apply this product only through sprinklers including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move irrigation systems. Do not apply this product through any other type of irrigation system. Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system.

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

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

A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise. Failure to cease application during a mechanical stoppage may result in 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.

Resistance Management Recommendations

A110.05 contains the active ingredient bifenthrin which is a GROUP 3 INSECTICIDE and is effective against a variety of insect and mite pests.

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

To delay insecticide (or miticide) resistance consider:

- Avoiding the consecutive use of **A110.05** or other GROUP 3 insecticides/miticides that have a similar target site of action, on the same insect/mite species.
- Using tank-mixtures or premixes with insecticides/miticides from a different target site of action GROUP as long as the involved products are all registered for the same use and have different sites of action.
- Basing insecticide/miticide use on a comprehensive IPM program.

- Monitoring treated insect/mite populations for loss of field efficacy.
- Contacting your local extension specialist, certified crop advisors, and/or manufacturer for insecticide/miticide resistance management and/or IPM recommendations for the specific site and resistant pest problems.

The non-GROUP 3 insecticide(s) that is used to alternate or mix with a GROUP 3 insecticide must be labeled for the crop and, to be effective as a resistance management strategy, must also be labeled for the target insect pest.

Monitor the efficacy of all insecticides used in your insect pest management program and record other factors that may influence insecticide performance and insect pest population growth. If **A110.05** or another insecticide appears to be less effective against an insect pest that it previously controlled, contact your local extension specialist or certified crop advisor for further investigation. For any requirements specific to your state or tribe, consult the agency responsible for pesticide regulations.

A110.05 CONVERSION TABLES

	Treated Area				
fl oz Product/A	lb a.i./A	Treated Acres per Gallon Product	Treated Acres per 2.5 Gallon of Product		
0.8	0.02	155.0	387.5		
1.0	0.025	124.0	310.0		
1.4	0.033	93.9	234.8		
1.7	0.04	77.5	193.8		
1.9	0.047	66.0	164.9		
2.1	0.05	62.0	155.0		
2.5	0.06	51.7	129.2		
2.6	0.062	50.0	125.0		
3.3	0.08	38.8	96.9		
4.1	0.10	31.0	77.5		
6.2	0.15	20.7	51.7		
6.6	0.16	19.4	48.4		
8.3	0.20	15.5	38.8		
10.3	0.25	12.4	31.0		
12.4	0.30	10.3	25.8		
20.6	0.50	6.2	15.5		

SPECIFIC USE DIRECTIONS FOR CROP PLANTS

ARTICHOKE, GLOBE

	USE RATES		
AT-PLANT	fl oz product/A	fl oz product/1000 row	
ATTEANT	(lb a.i./A)	ft @ 30" rows	
		(lb a.i./1000 row ft)	
Cribrata Manyil (Crubs)	4.1	0.24	
Cribrate Weevil (Grubs)	(0.10)	(0.0057)	

At-Plant Instructions:

• Apply as a 5 to 7 inch T-band over an open furrow or in-furrow with the seed. Thorough coverage is important for good control.

FOLIAR	fl oz product/A (lb a.i./A)
Artichoke Plume Moth	4.1
Cribrate Weevil	(0.10)

Foliar Instructions:

• Apply **A110.05** in 75 or more gallons of spray per acre by ground equipment, or 10 or more gallons of spray per acre by aircraft to achieve thorough coverage.

Specific Use Restrictions:

- Do not exceed more than 0.5 lb bifenthrin per acre per season including at-plant, PRE, PPI, and foliar applications from all bifenthrin containing products.
- **Pre-Harvest Interval (PHI):** Do not apply within 5 days of harvest.
- Application Interval: Do not make applications less than 15 days apart.

BEET, GARDEN

	USE RATES		
AT-PLANT	fl oz product/A (lb a.i./A)	fl oz product/1000 row ft @ 20" rows (lb a.i./1000 row ft)	
Crown and Root Aphids Cutworms Flea Beetles Seedcorn and Root Maggots Wireworms	4.1 (0.10)	0.16 (0.0038)	

At-Plant Instructions:

• Apply as a 5 to 7 inch T-band over an open furrow or in-furrow with the seed. Thorough coverage is important for good control.

FOLIAR	fl oz product/A (lb a.i./A)
Aphids	
Flea Beetles	3.3 - 4.1
Lepidopterous (larvae)	(0.08 - 0.10)
Spider Mites	(0.00 0.10)
Whitefly	

Foliar Instructions:

• Apply **A110.05** in 25 or more gallons of spray per acre to achieve thorough coverage.

Specific Use Restrictions:

- Not for use in California.
- Do not exceed more than 0.4 lb bifenthrin per acre per season including at-plant, PRE, PPI, and foliar applications from all bifenthrin containing products.
- **Pre-Harvest Interval (PHI):** Do not apply within 1 days of harvest.
- Application Interval: Do not make applications less than 7 days apart.

CANEBERRY SUBGROUP 13A

Blackberry (*Rubus* spp.); loganberry; red and black raspberry; including all cultivars, varieties and/or hybrids of these.

	USE RATES
AT-PLANT	fl oz product/A
	(lb a.i./A)
Wireworm	4.1
White Grubs	(0.10)

At-Plant Instructions:

- Apply as a 5 to 7 inch T-band over an open furrow or in-furrow with the seed. Thorough coverage is
 important for good control. Refer to At-Plant Application Instructions for application rates at various
 row spacings.
- May also be applied through transplant water at the time of transplanting.

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FOLIAR	fl oz product/A
FOLIAN	(lb a.i./A)
Leafroller	
Orange Tortrix	2.1 - 4.1
Root Weevil	(0.05 - 0.10)
Spotted Winged Drosophila	
Raspberry Crown Borer ¹	4.1
Spider Mites	(0.10)

Foliar Instructions:

- Apply **A110.05** in 50 or more gallons of spray per acre by ground equipment, or 10 or more gallons of spray per acre by aircraft to achieve thorough coverage.
- ¹Raspberry Crown Borer: Apply in the spring (pre bloom), or fall (post-harvest) as a drench application directed to the crown of the plants in a minimum of 200 gallons spray per acre. Increased efficacy is expected with higher spray volumes or for applications made prior to significant rainfall events.

- Do not exceed more than 0.2 lb bifenthrin per acre per season including at-plant, PRE, PPI, and foliar applications from all bifenthrin containing products.
- **Pre-Harvest Interval (PHI):** Do not apply within 3 days of harvest.
- **Application Interval:** Do not apply more than 1 foliar application pre-bloom and 1 foliar application post-bloom.

CANOLA; CRAMBE; RAPESEED

	USE RATES
AT-PLANT	fl oz product/A
	(lb a.i./A)
Army Cutworm	
Armyworm spp.	
Cutworm spp.	
Grape Colaspis	
Grubs	
Root Aphids	3.3
Seed Corn Beetle	(0.08)
Seed Corn Maggot	
Stalk Borer	
Sugarcane Beetle	
True Armyworm	
Wireworm	

At-Plant Instructions:

Apply as a 5 to 7 inch T-band over an open furrow or in-furrow with the seed. Thorough coverage is
important for good control. Refer to At-Plant Application Instructions for application rates at various
row spacings.

FOLIAR	fl oz product/A (lb a.i./A)	
Aphids		
Armyworm spp.		
Cutworms		
Diamondback Moth		
Flea Beetles		
Flea Hopper		
Grasshoppers	1.4 - 1.7	
Loopers	(0.033 - 0.04)	
Other Lepidopterous (Larvae)		
Plant Bugs		
Stink Bugs		
Seedpod Weevil		
Thrips		
Whitefly		

Foliar Instructions:

- Apply **A110.05** in 10 or more gallons of spray per acre by ground equipment, or 2 or more gallons of spray per acre by aircraft to achieve thorough coverage.
- When applying by air, 1-2 quarts of emulsified oil may be substituted for equivalent amounts of water in the finished spray. Thorough coverage is important for good control.

- Do not exceed more than 0.08 lb bifenthrin per acre per season including at-plant, PRE, PPI, and foliar applications from all bifenthrin containing products.
- Pre-Harvest Interval (PHI): Do not apply within 35 days of harvest.
- Application Interval: Do not make applications less than 14 days apart.

CILANTRO; CORIANDER

AT-PLANT	USE RATES	
	fl oz product/A	fl oz product/1000 row
AI-PLANI	(lb a.i./A)	ft @ 30" rows
	(ID a.i./A)	(lb a.i./1000 row ft)
Army Cutworm		
Armyworm spp.		
Cutworm spp.	1.7 - 3.3	0.09 - 0.19
Flea Beetle (Larvae)	(0.04 - 0.08)	(0.0023 - 0.0046)
Grape Colaspis		
Wireworm		

At-Plant Instructions:

• Apply as a 5 to 7 inch T-band over an open furrow or in-furrow with the seed. Thorough coverage is important for good control.

FOLIAR	fl oz product/A (lb a.i./A)
Aphids Beet Armyworm Cabbage Looper Cutworm Flea Beetle Grasshoppers Leafminer Saltmarsh Caterpillar Spotted Cucumber Beetle Thrips Whitefly	1.4 - 4.1 (0.033 - 0.10)
Two-Spotted Spider Mite	3.3 - 4.1 (0.08 - 0.10)

Foliar Instructions:

• Apply **A110.05** in 10 or more gallons of spray per acre by ground equipment, or 2 or more gallons of spray per acre by aircraft to achieve thorough coverage.

- Not for use in California.
- Do not apply more than 0.1 pounds bifenthrin per acre per season as an at-plant application.
- Do not exceed more than 0.5 lb bifenthrin per acre per season including at-plant, PRE, PPI, and foliar applications from all bifenthrin containing products.
- Pre-Harvest Interval (PHI): Do not apply within 3 days of harvest.
- Application Interval: Do not make applications less than 7 days apart.

CITRUS FRUIT CROP GROUP 10-10

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; trifoliate orange; uniq fruit; including all cultivars, varieties and/or hybrids of these.

	USE RATES	
SOIL SURFACE UNDER DRIP LINE	fl oz product/A (lb a.i./A)	
Blue Green Citrus Root Weevil		
Brown Leaf Notcher	10.2. 20.6	
Diaprepes Root Weevil	10.3 - 20.6	
Little Leaf Notcher	(0.25 - 0.50)	
Southern Blue Green Citrus Root Weevil		

Application Instructions:

- Using ground equipment, uniformly apply **A110.05** to the bare soil beneath citrus trees, from trunk to drip line.
- Larger spray volume should increase coverage uniformity. Additionally, a pre- and post-application irrigation may aid in coverage uniformity.
- A110.05 forms a chemical barrier to Diaprepes and citrus root weevil larvae (neonates). Neonates hatch
 and fall from foliage, and attempt to burrow into the root zone of the tree. A110.05 provides contact
 activity against these neonates, so soil disturbance at the base of trees should be minimized.
- Application timing is crucial for effective control of Diaprepes Root Weevil. Depending on region,
 Diaprepes can have one or two emergence peaks; one in the spring and one in the fall. These peaks can
 be greatly affected by environmental factors such as soil moisture. Apply high rates of A110.05 at the
 time of greatest emergence, or two moderate rates can be used if similar spring and fall emergence
 peaks are forecasted. If weevil emergence extends beyond the residual life of this product, use other
 management strategies (such as nematodes) to extend control. Consult with your local extension
 specialist or certified crop advisor for the most accurate and up-to-date emergence and application
 timing.
- A110.05 is also a valuable tool in an integrated pest management program for Citrus Root Weevil. Use
 in combination with good biological and cultural control practices for management of adult and larvae
 populations.
- Apply to individual citrus resets, when not in solid planted rows, using hand-gun or shielded sprayer.

- Not for use in California.
- Do not allow any application of **A110.05** to contact fruit or foliage.
- Do not exceed more than 0.5 lb bifenthrin per acre per year including applications from all bifenthrin containing products.
- Do not apply by air.

CORN

AT-PLANT	USE RATES	
	fl oz product/A (lb a.i./A)	fl oz product/1000 row ft @ 30" rows (lb a.i./1000 row ft)
Corn Rootworm (Larvae) (Northern;	3.3 - 8.3	0.19 - 0.47
Southern; and Western)	(0.08 - 0.2)	(0.0046 - 0.0115)
Army Cutworm ¹		
Armyworm spp. ¹		
Cutworm spp. ¹		
Grape Colapsis		
Grubs	1.7 - 6.6	0.09 - 0.38
Root Aphids	(0.04 - 0.16)	(0.0023 - 0.0091)
Seedcorn Maggot		
Stalk Borer ¹		
True Armyworm¹		
Wireworm		
At-Plant Instructions:		
 Following best local practice, apply as a s 	pray T-banded over an open fu	urrow or in-furrow with the
seed. Thorough coverage is important for	r good control.	
 ¹Army cutworm, armyworm spp., cutwo 	rm spp., stalkborer, true army	worm: Apply as a 5 -7 inch
band over the row on the soil surface, a 5	5-7 inch band over the open f	furrow (T-band), in-furrow wit

the seed, or broadcast to the soil surface.

PRE-PLANT INCORPORATED (PPI)	fl oz product/acre (lb a.i./acre)
Armyworm spp.	
Black Cutworm	
Grape Colaspis	10.26
Seed Corn Beetle	1.9 - 2.6
Seed Corn Maggot	(0.047 - 0.062)
White Grub	
Wireworm	

PPI Instructions:

• Incorporate **A110.05** close to seed planting depth up to a max depth of 3 inches.

PRE-EMERGENCE (PRE)	fl oz product/acre (lb a.i./acre)	
Armyworm spp.		
Black Cutworm	1.7	
Seed Corn Beetle	(0.04)	
Stalk Borer		

PRE Instructions:

• Apply to the soil surface prior to plant emergence.

FOLIAR PESTS	fl oz product/A (lb a.i./A)	
Aphids	1.4 - 4.1	
Army Cutworm	(0.033 - 0.10)	

Armyworm spp. Beet Armyworm Cereal Leaf Beetle Chinch Bug Common Stalk Borer Corn Earworm Corn Rootworm (Adult) Cucumber Beetle (Adult) Cutworm spp. European Corn Borer³ Fall Armyworm Flea Beetle Grasshoppers Greenbug Japanese Beetle (Adult) Leafhoppers Sap Beetle Southern Armyworm Southern Corn Leaf Beetle Southwestern Corn Borer³ Stinkbugs **Thrips** Tarnished Plant Bug True Armyworm Webworms Western Bean Cutworm Yellow Striped Armyworm Banks Grass Mite^{1,2} 3.3 - 4.1Carmine Mite^{1,2} (0.08 - 0.10)Two-spotted Spider Mite^{1,2}

Foliar Instructions:

- Apply A110.05 in 10 or more gallons of spray per acre by ground equipment, or 2 or more gallons of spray per acre by aircraft to achieve thorough coverage. To improve control by aircraft, use 5 gallons of finished spray per acre particularly when initial populations are heavier than normal. When applying by aircraft, 1-2 quarts of emulsified oil may be substituted for equivalent amounts water in the finished spray. Thorough coverage is important for good control.
- ¹Mites: Apply for Banks Grass Mite control when colonies first form prior to leaf damage or discoloration and before dispersal above the bottom third of the plant. For Two-Spotted Spider Mite and Carmine Mite control, apply when colonies first form prior to leaf damage or discoloration and before widespread mite dispersal throughout the canopy. Higher rates will be necessary for heavier initial populations and corn under heat or drought stress. Field experience with dimethoate at 0.5 lb active per acre in tank mixture has demonstrated good control under these conditions.
- ²Mite control in Texas, New Mexico, Oklahoma, Arizona: Apply A110.05 in 10 or more gallons of spray per acre by ground equipment, or 5 or more gallons of spray per acre by aircraft to achieve thorough coverage.
- ³Southwestern corn borer and european corn borer: Make initial application for corn borer control at or shortly before egg hatch and repeat as necessary.
- Corn ear-attacking pests: Apply this product just before silking and repeat as necessary to maintain

control.

• Other insect pests: Apply when pests first appear and repeat as necessary.

Specific Use Restrictions:

- Do not apply more than 0.2 pounds bifenthrin per acre per season as an at-plant application.
- For field corn do not exceed more than 0.3 lb bifenthrin per acre per season including at-plant, PRE, PPI, and foliar applications from all bifenthrin containing products.
- For sweet corn do not exceed more than 0.2 lb bifenthrin per acre per season including at-plant, PRE, PPI, and foliar applications from all bifenthrin containing products.
- **Pre-Harvest Interval (PHI):** Do not apply within 1 day of harvest for sweet corn, or 30 days of harvest for field corn.
- Application Interval: Do not make applications less than 7 days apart.
- Do not graze livestock in treated areas or cut treated crops for feed within 30 days of last application for field corn or within 1 day of harvest for sweet corn.
- Use of ultra low volume (ULV) foliar application on corn is prohibited.
- Do not make aerial or ground foliar applications to corn if heavy rainfall is imminent.

COTTON

	USE RATES	
AT-PLANT	floor was direct/A	fl oz product/1000 row
AI-FLANI	fl oz product/A (lb a.i./A)	ft @ 30" rows
	(ID a.i./A)	(lb a.i./1000 row ft)
Cutworm spp.		
Grape Colaspis		
Root Maggot	0.8 - 4.1	0.05 - 0.24
Seedcorn Maggot	(0.02 - 0.10)	(0.0011 - 0.0057)
White Grub		
Wireworm		

At-Plant Instructions:

• Apply as a 5 to 7 inch T-band over an open furrow or in-furrow with the seed. Thorough coverage is important for good control.

FOLIAR	fl oz product/A (lb a.i./A)	
European Corn Borer Soybean (Banded) Thrips Tobacco Thrips	0.8 - 4.1 (0.02 - 0.10)	
Boll Weevil ¹ Bollworm Cabbage Looper Cotton Aphid ² Cotton Fleahopper Cotton Leafperforator Cutworm Fall Armyworm Plant Bug Saltmarsh Caterpillar Southern Garden Leafhopper	1.7 - 4.1 (0.04 - 0.10)	

Stink Bug	
Tobacco Budworm	
Whitefly	
Yellow Striped Armyworm	
Beet Armyworm	
Carmine Spider Mite ²	2.5 - 4.1
Lygus Spp.	(0.06 - 0.10)
Pink Bollworm	(0.00 - 0.10)
Two-Spotted Spider Mite ²	

Foliar Instructions:

- Application in water: Apply A110.05 in 5 or more gallons of spray per acre by ground equipment, or 1
 or more gallons of spray per acre by aircraft to achieve thorough coverage. When applying by air, 1
 quart of emulsified oil may be substituted for equivalent amount water in the finished spray.
- **ULV application**: Apply the recommended rate of this product in a minimum of 1 quart of finished spray per acre with aircraft calibrated to give adequate coverage.
- ¹Boll weevil: Apply product at an interval of 3 to 4 days until pest numbers are reduced to acceptable levels.
- ²Mites and aphids: Apply when pests first appear. Repeat as necessary to maintain control. Higher rates will be required once a damaging threshold is reached.

Specific Use Restrictions:

- In California: Do not exceed 0.3 lb bifenthrin per acre per season including at-plant, PRE, PPI, and foliar applications from all bifenthrin containing products.
- Other States: Do not exceed more than 0.5 lb bifenthrin per acre per season including at-plant, PRE, PPI, and foliar applications from all bifenthrin containing products.
- **Pre-Harvest Interval (PHI):** Do not apply within 14 days of harvest.
- Do not graze livestock in treated areas or cut treated crops for feed.
- Do not make more than 10 synthetic pyrethroid pesticide applications to a cotton crop in any one growing season.

CUCURBIT VEGETABLES CROP GROUP 9

Chayote (fruit); Chinese wax gourd; citron melon; cucumber; gherkin; gourd, edible; *Momordica* spp.; muskmelon; pumpkin; squash, summer; squash, winter; watermelon; including all cultivars, varieties and/or hybrids of these.

AT-PLANT	USE	USE RATES	
	floz product/A	fl oz product/1000 row	
	fl oz product/A (lb a.i./A)	ft @ 30" rows	
	(ID a.i./A)	(lb a.i./1000 row ft)	
Cusumber Reetle (Lange)	3.3 - 4.1	0.19 - 0.24	
Cucumber Beetle (Larvae)	(0.08 - 0.1)	(0.0046 - 0.0057)	
Army Cutworm ¹			
Armyworm spp. ¹			
Cutworm spp. ¹	1722	0.00 0.10	
Flea Beetle Larvae	1.7 - 3.3 (0.04 - 0.08)	0.09 - 0.19 (0.0023 - 0.0046)	
Grubs	(0.04 - 0.08)	(0.0023 - 0.0046)	
True Armyworm ¹			
Wireworm			

At-Plant Instructions:

- Apply as a 5 to 7 inch T-band over an open furrow or in-furrow with the seed. Thorough coverage is important for good control.
- May also be applied through transplant water at the time of transplanting.
- ¹Army cutworm, armyworm spp., cutworm spp., or true armyworm: A110.05 may be applied as a broadcast or banded treatment to soil surface.

FOLIAR	fl oz product/A (lb a.i./A)
Aphids Armyworm Cabbage Looper Corn Earworm Cucumber Beetle Cutworm Grasshopper Leafhoppers Melonworm Pickleworm Plant Bug Rindworm Squash Bug Squash Vine Borer Stink Bug Tobacco Budworm	1.7 - 4.1 (0.04 - 0.10)
Banks Grass Mite Carmine Mite Lygus spp. Two-spotted Spider Mite Whitefly	3.3 - 4.1 (0.08 - 0.10)

Foliar Instructions:

- Apply **A110.05** in 20 or more gallons of spray per acre by ground equipment, or 5 or more gallons of spray per acre by aircraft to achieve thorough coverage.
- When applying by air, 1-2 quarts of emulsified oil may be substituted for equivalent amounts of water in the finished spray. Thorough coverage is important for good control.

Specific Use Restrictions:

- Do not apply more than 0.1 pounds bifenthrin per acre per season as an at-plant application.
- Do not exceed more than 0.3 lb bifenthrin per acre per season including at-plant, PRE, PPI, and foliar applications from all bifenthrin containing products.
- Do not make more than 2 applications after bloom.
- Pre-Harvest Interval (PHI): Do not apply within 3 days of harvest.
- Application Interval: Do not make applications less than 7 days apart.

DRIED SHELLED PEA AND BEAN (EXCEPT SOYBEAN) SUBGROUP 6C

Dried cultivars of bean (*Lupinus* spp.) (includes grain lupin, sweet lupin, white lupin, and white sweet lupin); bean (*Phaseolus* spp.) (includes field bean, kidney bean, lima bean (dry), navy bean, pinto bean, tepary bean); bean (*Vigna* spp.) (includes adzuki bean, blackeyed pea, catjang, cowpea,

Crowder pea, moth bean, mung bean, rice bean, southern pea, urd bean); broad bean (dry); chickpea; guar; lablab bean; lentil; pea (*Pisum* spp.) (includes field pea); pigeon pea.

	USI	USE RATES	
AT-PLANT	fl oz product/A (lb a.i./A)	fl oz product/1000 row ft @ 30" rows (lb a.i./1000 row ft)	
Corn Rootworm (larvae)	3.3 - 4.1 (0.08 - 0.1)	0.19 - 0.24 (0.0046 - 0.0057)	
Army Cutworm ¹ Armyworm spp. ¹ Cutworm spp. ¹ Grape Colapsis Grubs Root Maggot True Armyworm ¹ Wireworm	1.7 - 3.3 (0.04 - 0.08)	0.09 - 0.19 (0.0023 - 0.0046)	

At-Plant Instructions

- Following best local practice, apply T-band over an open furrow, in-furrow as a spray, or as a banded spray over the row targeting the plant bases and surrounding soil. Thorough coverage of these areas is important for good control.
- ¹Army cutworm, armyworm spp., cutworm spp., true armyworm: Apply broadcast to soil surface.

FOLIAR	fl oz product/A (lb a.i./A)
Aster Leafhoppers	
Flea Beetle	1.0 - 4.1
Grasshoppers	(0.025 - 0.10)
Leafhoppers	
Alfalfa Caterpillar	
Aphids	
Bean Leaf Beetle	
Beet Armyworm	
Cloverworm	
Corn Earworm	
Corn Rootworm (Adult)	
Cucumber Beetles	
Cutworms	1.4 - 4.1
European Corn Borer	(0.033 - 0.10)
Fall Armyworm	
Japanese Beetle (Adult)	
Loopers	
Pea Leaf Weevil	
Pea Weevil	
Plant Bug	
Sap Beetle	
Stink Bug	

Southern Armyworm	
Tarnished Plant Bug	
Thrips	
Webworms	
Western Bean Cutworm	
Whitefly	
Banks Grass Mite	
Carmine Mite	3.3 - 4.1
Lygus Species	(0.08 - 0.10)
Twospotted Spider Mite	

Foliar Instructions:

- Apply **A110.05** in 10 or more gallons of spray per acre by ground equipment, or 2 or more gallons of spray per acre by aircraft to achieve thorough coverage.
- When applying by air, 1-2 quarts of emulsified oil may be substituted for equivalent amounts of water in the finished spray. Thorough coverage is important for good control.

Specific Use Restrictions:

- Not for use in California.
- Do not apply more than 0.1 pounds bifenthrin per acre per season as an at-plant application.
- For succulent beans and succulent or dry peas do not exceed more than 0.2 lb bifenthrin per acre per season including at-plant, PRE, PPI, and foliar applications from all bifenthrin containing products.
- For dried beans do not exceed more than 0.3 lb bifenthrin per acre per season including at-plant, PRE, PPI, and foliar applications from all bifenthrin containing products.
- **Pre-Harvest Interval (PHI):** For succulent beans and peas do not apply within 3 days of harvest; for dry beans and peas do not apply within 14 days of harvest.
- Application Interval: For succulent beans and peas do not make applications less than 3 days apart; for dry beans and peas do not make applications less than 7 days apart.

EGGPLANT

	USE RA	TES
AT-PLANT	fl oz product/A (lb a.i./A)	fl oz product/1000 row ft @ 24" rows (lb a.i./1000 row ft)
Army Cutworm ¹ Armyworm spp. 1 Cutworm spp. 1 Grubs Root Maggot True Armyworm 1 Wireworm	1.7 - 3.3 (0.04 - 0.08)	0.08 - 0.15 (0.0018 - 0.0037)

At-Plant Instructions:

- Following best local practice, apply T-band over an open furrow, in-furrow as a spray, or as a banded spray over the row targeting the plant bases and surrounding soil. Thorough coverage of these areas is important for good control.
- ¹Army cutworm, armyworm spp., cutworm spp., true armyworm: Apply broadcast to soil surface.

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FOLIAD	fl oz product/A
FOLIAR	(lb a.i./A)

Armyworms (Including Beet)	
Armyworm Fall	
Armyworm Southern	
Cabbage Looper	
Colorado Potato Beetle	
Corn Earworm	
Cucumber Beetle	
Cutworms	
European Corn Borer	
Flea Beetle	1 4 4 1
Leafminers	1.4 - 4.1
Loopers	(0.033 - 0.10)
Pepper Weevil	
Plant Bug	
Stink Bug	
Thrips	
Tomato Hornworm	
Tomato Pinworm	
Vegetable Leafminer	
Whitefly	
Yellowstriped Armyworm	
Banks Grass Mite	
Carmine Mite	2.2.44
Lygus spp.	3.3 - 4.1
Pacific Spider Mite	(0.08 - 0.10)
Two-spotted Spider Mite	
Falley Instructions	

Foliar Instructions:

- Apply **A110.05** in 10 or more gallons of spray per acre by ground equipment, or 2 or more gallons of spray per acre by aircraft to achieve thorough coverage.
- When applying by air, 1-2 quarts of emulsified oil may be substituted for equivalent amounts of water in the finished spray. Thorough coverage is important for good control.

Specific Use Restrictions:

- Not for use in California.
- Do not apply more than 0.1 pounds bifenthrin per acre per season as an at-plant application.
- Do not exceed more than 0.2 lb bifenthrin per acre per season including at-plant, PRE, PPI, and foliar applications from all bifenthrin containing products.
- Pre-Harvest Interval (PHI): Do not apply within 7 days of harvest.
- Application Interval: Do not make applications less than 7 days apart.

GRAPES

	USE RATES
AT-PLANT	fl oz product/A
	(Ib a.i./A)
Grape Phylloxera (Suppression Only)	4.1
White Grubs	4.1
Wireworm	(0.10)

At-Plant Instructions:

• Apply as a 5 to 7 inch T-band over an open furrow. Thorough coverage is important for good control. Refer to **At-Plant Application Instructions** for application rates at various row spacings.

• May also be applied through transplant water at the time of transplanting.

FOLIAR	fl oz product/A (lb a.i./A)
Cutworms	
Eastern Grape Leafhopper	
Grape Berry Moth	
Grapevine Root Borer	2.1 - 4.1
Japanese Beetle (Adult)	(0.05 - 0.10)
Lady Beetle (<i>Scymnus</i> spp.)	
Variegated Leafhopper	
Western Grape Leafhopper	
Black Vine Weevil	4.1
Glassywinged Sharpshooter	4.1
Two-spotted Spider Mite	(0.10)

Foliar Instructions:

- Apply **A110.05** in 25 or more gallons of spray per acre by ground equipment, or 10 or more gallons of spray per acre by aircraft to achieve thorough coverage.
- When applying by air, 1-2 quarts of emulsified oil may be substituted for equivalent amounts of water in the finished spray. Thorough coverage is important for good control.

Specific Use Restrictions:

- Not for use in California.
- Do not exceed more than 0.1 lb bifenthrin per acre per season including at-plant, PRE, PPI, and foliar applications from all bifenthrin containing products.
- Pre-Harvest Interval (PHI): Do not apply within 30 days of harvest.

HEAD AND STEM BRASSICA SUBGROUP 5A

Broccoli; broccoli, Chinese; brussels sprouts; cabbage; cabbage, Chinese (napa); cabbage, Chinese mustard; cauliflower; cavalo broccolo; kohlrabi; including all cultivars, varieties and/or hybrids of these.

	USE RA	TES
AT-PLANT	fl oz product/A (lb a.i./A)	fl oz product/1000 row ft @ 30" rows (lb a.i./1000 row ft)
Army Cutworm ¹		
Armyworm spp. 1		
Cabbage Maggot		
Cutworm spp. 1	17 22	0.00 0.10
Grubs	1.7 - 3.3 (0.04 - 0.08)	0.09 - 0.19
Root Aphids	(0.04 - 0.08)	(0.0023 - 0.0046)
Root Maggots		
Seedcorn Maggot		
Wireworm		

At-Plant Instructions:

- Following best local practice, apply as a spray T-banded over an open furrow or in-furrow with the seed or transplant. Thorough coverage is important for good control.
- ¹Army cutworm, armyworm spp., and cutworm: A110.05 may be applied as a broadcast treatment to soil surface.

FOLIAR	fl oz product/A (lb a.i./A)
Aphids Armyworm Spp. Black Burrowing Bug Crickets Corn Earworm Cucumber Beetles Cutworms Diamondback Moth Flea Beetles Ground Beetles Imported Cabbageworm Leafhoppers Loopers Saltmarsh Caterpillar Stink Bug Thrips Tobacco Budworm Whitefly Wireworm (Adult)	1.4 - 4.1 (0.033 - 0.10)
Banks Grass Mite Carmine Mite Lygus spp. Pacific Spider Mite Two-spotted Spider Mite	3.3 - 4.1 (0.08 - 0.10)

Foliar Instructions:

 Apply A110.05 in 10 or more gallons of spray per acre by ground equipment, or 2 or more gallons of spray per acre by aircraft to achieve thorough coverage. When applying by air, 1-2 quarts of emulsified oil may be substituted for equivalent amounts of water in the finished spray. Thorough coverage is important for good control.

- Do not apply more than 0.1 pounds bifenthrin per acre per season as an at-plant application.
- Do not exceed more than 0.5 lb bifenthrin per acre per season including at-plant, PRE, PPI, and foliar applications from all bifenthrin containing products.
- Do not make more than 5 applications after bloom.
- Pre-Harvest Interval (PHI): Do not apply within 7 days of harvest.
- Application Interval: Do not make applications less than 7 days apart

HOPS

	USE RATES
AT-PLANT	fl oz product/A
	(lb a.i./A)
Grape Colaspis	
Rootworms	2.5 - 4.1
Sweet Potato Flea Beetle	
White Grubs	(0.06 - 0.10)
Wireworms	

At-Plant Instructions:

- Apply as a 5 to 7 inch T-band over an open furrow or in-furrow with the seed. Thorough coverage is
 important for good control. Refer to At-Plant Application Instructions for application rates at various
 row spacings.
- May also be applied as a soil drench through transplant water the time of transplanting.
- Apply in a minimum of 10 gallons per acre of finished spray.

FOLIAR	fl oz product/A (lb a.i./A)	
Aphids Armyworm Cutworm Leafroller Looper	2.5 - 4.1 (0.06 - 0.10)	
Root Weevil ¹	2.1 - 4.1 (0.05 - 0.10)	
Two-spotted Spider Mite ²	4.1 (0.10)	

Foliar Instructions:

- For best results apply this product in 100-150 gallons per acre with ground equipment in early season, or 200-250 gallons of spray per acre in late season. Thorough coverage is important for good control.
- ¹Root weevil: Direct spray at lower 3 feet of plant plus 1.5-2 feet of soil on both sides of plant row.
- ²Two-spotted spider mite: Apply no less than 7.4 fl oz (0.10 lb a.i. per acre) per application in a minimum of 10 gallons of finished spray per acre by aircraft.

Specific Use Restrictions:

- Do not exceed more than 0.3 lb bifenthrin per acre per season including at-plant, PRE, PPI, Layby and foliar applications from all bifenthrin containing products.
- Do not apply using an ultra low volume (ULV) application method.
- Pre-Harvest Interval (PHI): Do not apply within 14 days of harvest.
- **Application Interval:** Do not make applications less than 21 days apart.

LEAFY BRASSICA GREENS SUBGROUP 5B & TURNIP GREENS

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

	USE RATES	
AT-PLANT	fl oz product/A	
	(lb a.i./A)	

Rootworm (Larvae)	3.3 - 4.1
Nootworm (Larvae)	(0.08 - 0.10)
Army Cutworm ¹	
Armyworm spp. ¹	
Cabbage Maggot	
Cutworm spp. 1	17 22
Grubs	1.7 - 3.3 (0.04 – 0.08)
Lettuce Root Aphid	(0.04 – 0.08)
Root Maggots	
True Armyworm	
Wireworm	

At-Plant Instructions:

- Following best local practice, apply as a spray T-banded over an open furrow or in-furrow with the seed or transplant. Thorough coverage is important for good control. Refer to **At-Plant Application Instructions** for application rates at various row spacings.
- ¹Cutworm and armyworm: A110.05 may be applied as a broadcast treatment to soil surface.

FOLIAR	fl oz product/A (lb a.i./A)
Aphids Armyworm Spp. Crickets Corn Earworm Cucumber Beetles Cutworms Diamondback Moth Flea Beetles Grasshoppers Ground Beetles Imported Cabbageworm Japanese Beetle (Adult) Leafhoppers Loopers Saltmarsh Caterpillar Stink Bug Thrips Tobacco Budworm Whitefly Wireworm (Adult)	1.4 - 4.1 (0.033 - 0.10)
Banks Grass Mite Carmine Mite Lygus spp. Pacific Spider Mite Two-spotted Spider Mite	3.3 - 4.1 (0.08 - 0.10)

Foliar Instructions:

- Apply **A110.05** in 10 or more gallons of spray per acre by ground equipment, or 2 or more gallons of spray per acre by aircraft to achieve thorough coverage.
- When applying by air, 1-2 quarts of emulsified oil may be substituted for equivalent amounts of water

in the finished spray. Thorough coverage is important for good control.

Specific Use Restrictions:

- Not for use in California.
- Do not apply more than 0.1 pounds bifenthrin per acre per season as an at-plant application.
- Do not exceed more than 0.4 lb bifenthrin per acre per season including at-plant, PRE, PPI, and foliar applications from all bifenthrin containing products.
- Pre-Harvest Interval (PHI): Do not apply within 7 days of harvest.
- Application Interval: Do not make applications less than 7 days apart

LETTUCE, HEAD

	USE RATES	
AT-PLANT	fl an anadust/A	fl oz product/1000 row ft
	fl oz product/A (lb a.i./A)	@ 30" rows
	(ID a.i./A)	(lb a.i./1000 row ft)
Rootworm (Larvae)	1.7 - 3.3	0.09 - 0.19
Rootworiii (Larvae)	(0.04 - 0.08)	(0.0023 - 0.0046)
Army Cutworm ¹ Armyworm spp. ¹ Bulb Mites ¹ Cutworm spp. ¹ Grubs Lettuce Root Aphid Root Maggot True Armyworm ¹ Wireworm	1.7 - 3.3 (0.04 - 0.08)	0.09 - 0.19 (0.0023 - 0.0046)

At-Plant Instructions:

- Apply as a 5 to 7 inch T-band over an open furrow or in-furrow with the seed. Thorough coverage is important for good control.
- ¹Army cutworm, armyworm spp., bulb mites, cutworm spp., true armyworm: Apply broadcast to soil surface.

FOLIAR PESTS	fl oz product/A (lb a.i./A)
Aphids Armyworm Cabbage Maggot Corn Earworm Cucumber Beetle Cutworm Diamondback Moth Flea Beetle Grasshoppers Imported Cabbageworm Leafhopper Looper Saltmarsh Caterpillar	1.4 - 4.1 (0.033 - 0.10)

Stink Bug spp.	
Thrips	
Tobacco Budworm	
Whitefly	
Carmine Mite	2.2 4.1
Lygus spp.	3.3 - 4.1
Two-spotted Spider Mite	(0.08 - 0.10)

Foliar Instructions:

- Apply **A110.05** in 15 or more gallons of spray per acre by ground equipment, or 5 or more gallons of spray per acre by aircraft to achieve thorough coverage.
- When applying by air, 1-2 quarts of emulsified oil may be substituted for equivalent amounts of water in the finished spray. Thorough coverage is important for good control.

Specific Use Restrictions:

- Do not apply more than 0.1 pounds bifenthrin per acre per season as an at-plant application.
- Do not exceed more than 0.5 lb bifenthrin per acre per season including at-plant, PRE, PPI, and foliar applications from all bifenthrin containing products.
- Pre-Harvest Interval (PHI): Do not apply within 7 days of harvest.
- Application Interval: Do not make applications less than 7 days apart.

MAYHAW

	USE RATES	
PPI & PRE	PPI / PPE	
	fl oz product/A	
	(lb a.i./A)	
White Grub	4.1	
Wireworm	(0.10)	

PPI Instructions:

• Incorporate A110.05 close to seed planting depth.

PRE Instructions:

Apply to the soil surface prior to plant emergence.

FOLIAR PESTS	fl oz product/A (lb a.i./A)
Plum Curculio	3.3 - 4.1 (0.08 - 0.10)

Foliar Instructions:

- Apply **A110.05** in 15 or more gallons of spray per acre by ground equipment, or 5 or more gallons of spray per acre by aircraft to achieve thorough coverage.
- When applying by air, 1-2 quarts of emulsified oil may be substituted for equivalent amounts of water in the finished spray. Thorough coverage is important for good control.

- Not for use in California.
- Do not exceed more than 0.2 lb bifenthrin per acre per season including at-plant, PRE, PPI, and foliar
 applications from all bifenthrin containing products.
- Pre-Harvest Interval (PHI): Do not apply within 30 days of harvest.
- Application Interval: Do not make applications less than 7 days apart.

OKRA

	USE RATES	
AT-PLANT	fl oz product/A (lb a.i./A)	fl oz product/1000 row ft @ 30" rows (lb a.i./1000 row ft)
Armyworm Cutworm spp. Flea Beetle (Larvae) Grape Colaspis Root Maggot Wireworm White Grub	1.7 - 3.3 (0.04 - 0.08)	0.09 - 0.19 (0.0023 - 0.0046)

At-Plant Instructions:

• Apply as a 5 to 7 inch T-band over an open furrow, in-furrow with the seed, or broadcast to the soil surface. Thorough coverage is important for good control.

FOLIAR	fl oz product/A (lb a.i./A)	
Aphids Armyworm Corn Earworm Cucumber Beetles Cutworms European Corn Borer Flea Beetles Japanese Beetle (Adult) Leafminers Loopers Stink Bugs Thrips Whitefly	1.4 - 4.1 (0.033 - 0.10)	
Broad Mite Carmine Mite Lygus Species Two-Spotted Spider Mite	3.3 - 4.1 (0.08 - 0.10)	

Foliar Instructions:

• Apply **A110.05** in 10 or more gallons of spray per acre by ground equipment, or 10 or more gallons of spray per acre by aircraft to achieve thorough coverage.

- Not for use in California.
- Do not apply more than 0.1 pounds bifenthrin per acre per season as an at-plant application.
- Do not exceed more than 0.2 lb bifenthrin per acre per season including at-plant, PRE, PPI, and foliar applications from all bifenthrin containing products.
- Pre-Harvest Interval (PHI): Do not apply within 7 days of harvest.
- Application Interval: Do not make applications less than 7 days apart.

PEANUT

	USE RA	ATES
AT-PLANT	fl oz product/A (lb a.i./A)	fl oz product/1000 row ft @ 30" rows (lb a.i./1000 row ft)
Aphids		
Leafhoppers	3.3 - 4.1	0.19 - 0.24
Thrips	(0.08 - 0.10)	(0.0046 - 0.0057)
Wireworms		

At-Plant Instructions

• Apply as a 5 to 7 inch T-band over an open furrow or in-furrow with the seed. Thorough coverage is important for good control.

FOLIAR	fl oz product/A (lb a.i./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 Three Cornered Alfalfa Hoppers Velvetbean Caterpillar	1.4 - 4.1 (0.033 - 0.10)	
Yellowstriped Armyworm		
Aphids Spider Mites Thrips Whitefly	3.3 - 4.1 (0.08 - 0.10)	

Foliar Instructions:

• Apply **A110.05** in 10 or more gallons of spray per acre by ground equipment, or 2 or more gallons of spray per acre by aircraft to achieve thorough coverage.

- Not for use in California.
- Do not exceed more than 0.5 lb bifenthrin per acre per season including at-plant, PRE, PPI, and foliar applications from all bifenthrin containing products.
- Pre-Harvest Interval (PHI): Do not apply within 14 days of harvest.
- Application Interval: Do not make applications less than 14 days apart.
- Do not feed treated peanut hay or immature plants to livestock.

PEARS

PESTS	USE RATES fl oz product/A (lb a.i./A)		
Aphids			
Codling Moths			
Cutworms			
Green Fruitworms			
Leafhoppers	1.7 - 8.3		
Leafminers			
Leafroller			
Lygus spp.	(0.04 - 0.2)		
Plant Bugs			
Plum Curculio			
San Jose Scale Crawlers			
Stink Bugs			
Tarnished Plant Bugs			
Two-spotted Spider Mite	2.5 - 8.3		
Yellow Mite	(0.06 - 0.2)		
European Red Mite	3.3 - 8.3		
	(0.08 - 0.2)		

Application Instructions:

 Apply A110.05 in 50 or more gallons of spray per acre by ground equipment as a concentrate, 200 or more gallons of spray by ground equipment as a dilute, or 10 or more gallons of spray per acre by aircraft to achieve thorough coverage. Thorough coverage is important for good control.

Specific Use Restrictions:

- Do not exceed more than 0.5 lb bifenthrin per acre per season including at-plant, PRE, PPI, and foliar applications from all bifenthrin containing products, with no more than 0.45 lb bifenthrin per acre applied after petal fall.
- Pre-Harvest Interval (PHI): Do not apply within 14 days of harvest.
- Application Interval: Do not make applications less than 30 days apart.
- Do not graze livestock in treated orchards or cut treated cover crops for feed.

PEPPERS, BELL & NON-BELL

AT-PLANT	US	USE RATES	
	fl oz product/A (lb a.i./A)	fl oz product/1000 row ft @ 30" rows (lb a.i./1000 row ft)	
Army Cutworm ¹ Armyworm spp. ¹ Cutworm spp. ¹ Flea Beetle Larvae Grubs Pepper Maggot Root Aphid	1.7 - 3.3 (0.04 - 0.08)	0.09 - 0.19 (0.0023 - 0.0046)	

Root Maggot Stalk Borer ¹	
True Armyworm ¹	
Wireworm	

At-Plant Instructions:

- Apply as a 5 to 7 inch T-band over an open furrow, in-furrow with the seed or transplant, or as a band to the soil surface. Thorough coverage is important for good control.
- ¹Army cutworm, armyworm spp., cutworm spp., stalk borer, true armyworm: Apply broadcast to soil surface.

FOLIAR	fl oz product/A (lb a.i./A)
Armyworm (Including Beet) Armyworm Fall Armyworm Southern Cabbage Looper Colorado Potato Beetle Corn Earworm Cucumber Beetle Cutworm European Corn Borer Flea Beetle Leafminer Looper Pepper Weevil Plant Bug Stink Bugs Thrips Tomato Hornworm Tomato Pinworm Vegetable Leafminer Whitefly Yellowstriped Armyworm	1.4 - 4.1 (0.033 - 0.10)
Broad Mite Carmine Mite Lygus spp. Pacific Spider Mite Two-spotted Spider Mite	3.3 - 4.1 (0.08 - 0.10)

Foliar Instructions:

- Apply A110.05 in 10 or more gallons of spray per acre by ground equipment, or 2 or more gallons of spray per acre by aircraft to achieve thorough coverage. Thorough coverage is important for good control.
- When applying by air, 1-2 quarts of emulsified oil may be substituted for equivalent amounts of water in the finished spray. Thorough coverage is important for good control.

Specific Use Restrictions:

- Do not apply more than 0.1 pounds bifenthrin per acre per season as an at-plant application.
- Do not exceed more than 0.2 lb bifenthrin per acre per season including at-plant, PRE, PPI, and foliar applications from all bifenthrin containing products.

- Pre-Harvest Interval (PHI): Do not apply within 7 days of harvest.
- **Application Interval:** Do not make applications less than 7 days apart.

ROOT VEGETABLES (EXCEPT SUGAR BEET) SUBGROUP 1B

Burdock, edible; carrot; celeriac; chervil, turnip-rooted; chicory; ginseng; horseradish; parsley, turnip-rooted; parsnip; radish; radish, oriental; rutabaga; salsify; salsify, black; salsify, Spanish; skirret; turnip. (EXCEPT GARDEN BEET)

AT-PLANT, PPI & PRE	USE RATES
	fl oz product/A
	(lb a.i./A)
Crown and Root Aphids	
Cutworms	4.1
Flea Beetles	4.1
Seedcorn and Root Maggots	(0.10)
Wireworms	

At-Plant Instructions:

Apply as a 5 to 7 inch T-band over an open furrow or in-furrow with the seed. Thorough coverage is
important for good control. Refer to At-Plant Application Instructions for application rates at various
row spacings.

PPI Instructions:

• Incorporate **A110.05** close to the intended seed planting depth.

PRE Instructions:

Apply to the soil surface prior to plant emergence.

FOLIAR	fl oz product/A (lb a.i./A)
Banded Cucumber Beetle	
Black Flea Beetle	
Click Beetles	
Corn Wireworm	
Cucumber Beetles	
Flea Beetles	
Japanese Beetle Grubs	
May/June Beetles	(0.032 0.10)
Rootworms	(0.033 - 0.10)
Southern Potato Beetle	
Sugarcane Beetle	
Sweet Potato Flea Beetle	
Sweet Potato Weevil	
Tobacco Wireworm	
Whitefringed Beetle	
White Grub	

Foliar Instructions:

 Apply A110.05 in 10 or more gallons of spray per acre by ground equipment, or 3 or more gallons of spray per acre by aircraft to achieve thorough coverage.

Specific Use Restrictions:

- Not for use in California.
- Do not exceed more than 0.5 lb bifenthrin per acre per season including at-plant, PRE, PPI, and foliar applications from all bifenthrin containing products.
- Pre-Harvest Interval (PHI): Do not apply within 21 days of harvest.
- Application Interval: Do not make applications less than 21 days apart.
- Do not make more than 2 foliar applications per season.

SOD FARMS

USE RA		RATES
FOLIAR	fl oz product/A (lb a.i./A)	fl oz product/1000 ft² (lb a.i./1000 ft²)
Armyworms ¹ Cutworms ¹ Sod Webworm ¹	1.4 - 2.1 (0.033 - 0.05)	0.03 - 0.05 (0.0008 - 0.0012)
Annual Bluegrass Weevil (Hyperodes) ² (Adult) Banks Grass Mite ⁶ Billbugs (Adult) ³ Black Turfgrass Ataenius (Adult) ⁴ Crickets Earwigs Grasshoppers Mealybugs Mites ⁶	2.1 - 4.1 (0.05 - 0.10)	0.05 - 0.09 (0.0012 - 0.0023)
Ants Chinch Bugs ⁵ Japanese Beetle (Adult) Mole Cricket (Adult) ⁷ Mole Cricket (Nymph) ⁸	4.1 - 8.4 (0.10 - 0.20)	0.09 - 0.19 (0.0023 - 0.0047)

Application Instructions:

- Following best local practice, apply as a broadcast treatment. Use higher volumes up to 10 gallons of
 carrier per 1000 square feet to get uniform coverage when treating dense grass foliage. For best
 foliage wetting, apply tank-mixed with a compatible surfactant. Thorough coverage is important for
 good control.
- Irrigation to treated area within a few hours following application can improve efficacy to sub-surface pests including mole crickets.
- Recommended rates should be effective for all pests listed in above table. However, if pest populations are extremely high or maximum residual control is required, **A110.05** may be applied at a maximum of 0.19 fl oz per 1000 square feet per application.

Specific Pest Instructions:

- ¹Armyworms, cutworms and sod webworms: Delay watering (irrigation) or mowing for 24 hours after application to ensure optimum control. If the grass area is being maintained at a mowing height of greater than 1 inch, then higher application rates (up to 0.19 fl oz per 1000 square feet per application) may be required during periods of high pest pressure.
- ²Annual bluegrass weevil (adult): For optimal control, time applications to coincide with adult weevil
 movement from overwintering sites to grass areas. Weevil migration time usually begins at Forsythia
 bloom and ends with the full bloom of the flowering dogwood (*Cornus florida*). Consult with your local
 extension specialist or certified crop advisor for the most accurate and up-to-date emergence and
 application timing.
- ³Billbug (adult): For best results, apply A110.05 when adults are first observed. Consult with your local extension specialist or certified crop advisor for the most accurate and up-to-date emergence and application timing.
- ⁴Black turfgrass Ataenius (adult): In order to control the first and second generations, apply product in May and July. First application should coincide with blooming horse chestnut (*Aesculus hippocastanum*) and Vanhoutte spirarea (*Spiraea vanhouttei*). Second (July) application should coincide with Rose of Sharon (*Hibiscus syriacus*) bloom.
- 5Chinch bug: Chinch bugs are found in the thatch layer and infest the base of grass plants. To optimize penetration of A110.05 to chinch big location, irrigate (water) grass after treatment. If grass area is being maintained at a long mowing height or if thatch layer is excessive, apply at a higher volume. High application rates (up to 0.19 fl oz per 1000 square feet per application) can be used to control difficult midsummer nymph and adult populations.
- ⁶Mites: For optimal control, a second application, five to seven days after the first, may be necessary.
- ⁷Mole cricket (adult): For best results on this very active insect pest, apply as late in the day as possible. Water grass after treatment with up to 0.5 inches of water. If soil is dry, irrigate before treatment to bring insects closer to the surface and insecticide treatment. Treat at peak egg hatch to ensure larvae are suppressed at hatch. Consult with your local extension specialist or certified crop advisor for the most accurate and up-to-date emergence and application timing.
- *Mole cricket (nymph): If areas were under high mole cricket pressure in the spring, then treat immediately before peak egg hatch. Emerging insect nymphs are both close to soil surface and more susceptible to insecticide, while older and larger nymphs cause more damage and are more difficult to control. Higher application rates and more frequent applications may need to be made to control the older nymphs. For best results, apply as late in the day as possible, and water grass after treatment with up to 0.5 inches of water. If soil is dry, irrigate before treatment to bring insects closer to the surface and insecticide treatment.

Specific Use Restrictions:

- Not for use in California.
- In New York State, this product may not be applied to turf within 100 feet of a coastal marsh or of a water body (lake, pond, river, stream, wetland, or drainage ditch).
- In New York State, do make a single repeat application of this product if there are signs of renewed insect activity, but not sooner than two weeks after the first application.

SOYBEANS

	USE RATES	
AT-PLANT	fl oz product/A (lb a.i./A)	fl oz product/1000 row ft @ 30" rows (lb a.i./1000 row ft)

Rootworm (Larvae)	3.3 - 4.1	0.19 - 0.24
noothorn (zarvae)	(0.08 - 0.10)	(0.0046 - 0.0057)
Army Cutworm ¹		
Armyworm spp. ¹		
Bean Leaf Beetle (Larvae)		
Cutworm spp. ¹		
Grape Colaspis	1.7 - 3.3 (0.04 - 0.08)	0.00 0.10
Grubs		
Root Maggot		(0.0023 - 0.0046)
Seed Corn Beetle		
Seed Corn Maggot		
True Armyworm¹		
Wireworm		

At-Plant Instructions:

- Apply as a 5 to 7 inch T-band over an open furrow, in-furrow with the seed, or as a banded spray over the soil surface. Thorough coverage is important for good control.
- ¹Army cutworm, armyworm spp., cutworm spp., true armyworm: For best results apply broadcast to soil surface.

PRE-PLANT INCORPORATED (PPI)	fl oz product/acre (lb a.i./acre)
Armyworm spp. Black Cutworm Seedcorn Maggot White Grub Wireworm	1.9 - 2.6 (0.047 - 0.062)

PPI Instructions:

• Incorporate **A110.05** close to seed planting depth and no deeper than 3 inches.

PRE-EMERGENCE (PRE)	fl oz product/acre (lb a.i./acre)
Armyworm spp. Black Cutworm Stalk Borer	1.7 (0.04)

PRE Instructions:

• Apply to the soil surface prior to plant emergence.

FOLIAR	fl oz product/A (lb a.i./A)
Alfalfa Caterpillar	
Aphids	
Armyworms ¹	
Bean Leaf Beetle	
Blister Beetle spp.	1.4.4.1
Corn Earworm	1.4 - 4.1
Corn Rootworm (Adult)	(0.033 - 0.10)
Cowpea Curculio	
Cucumber Beetles (Adult)	
Cutworms	
Dectes Stem Borer	

False Chinch Bug Flea Beetle Grasshoppers Green Cloverworm Hornworms Imported Cabbageworm Japanese Beetle (Adult) Leaf Skeletonizer spp. Leafhoppers Leafminers (Adult) Lesser Cornstalk Borer Loopers 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 Budworm¹ Velvetbean Caterpillar Webworm Woollybear Caterpillar Lygus Species 3.3 - 4.1Whitefly (0.08 - 0.10)Two Spotted Spider Mite

Foliar Instructions:

- Apply A110.05 in 10 or more gallons of spray per acre by ground equipment, or 2 or more gallons of spray per acre by aircraft to achieve thorough coverage.
- ¹Armyworms, tobacco budworm: Please consult your local or state agricultural authority to determine if pyrethroid resistance is present in armyworm, or tobacco budworm populations in your area. If so refer to the resistance management section of this label.

Specific Use Restrictions:

- Not for use in California.
- Do not apply more than 0.1 pounds bifenthrin per acre per season as an at-plant application.
- Do not exceed more than 0.3 lb bifenthrin per acre per season including at-plant, PRE, PPI, and foliar applications from all bifenthrin containing products.
- Pre-Harvest Interval (PHI): Do not apply within 18 days of harvest.
- Application Interval: Do not make applications less than 30 days apart.

SUCCULENT SHELLED PEA AND BEAN SUBGROUP 6B & EDIBLE-PODDED LEGUME SUBGROUP 6A

Bean (*Phaseolus* spp.) (includes broad bean (succulent), lima bean (green), runner bean, snap bean, wax bean); bean (*Vigna* spp.) (includes asparagus bean, blackeyed pea, Chinese longbean, cowpea, moth bean, southern pea, yardlong bean); jackbean; pea (*Pisum* spp.) (includes dwarf pea, ediblepod pea, English pea, garden pea, green pea, snow pea, sugar snap pea); pigeon pea; soybean (immature seed); sword bean; including all cultivars, varieties and/or hybrids of these.

	USE	USE RATES	
AT-PLANT	fl oz product/A	fl oz product/1000 row ft @ 30" rows	
	(lb a.i./A)	(lb a.i./1000 row ft)	
Corn Bootwarm (Januar)	3.3 - 4.1	0.19 - 0.24	
Corn Rootworm (larvae)	(0.08 - 0.10)	(0.0046 - 0.0057)	
Army Cutworm ¹			
Armyworm spp. 1			
Cutworm spp. 1			
Grape Colapsis	1.7 - 3.3	0.09 - 0.19	
Grubs	(0.04 - 0.08)	(0.0023 - 0.0046)	
Root Maggot			
True Armyworm¹			
Wireworm			

At-Plant Instructions

- Following best local practice, apply T-band over an open furrow, in-furrow as a spray, or as a banded spray over the row targeting the plant bases and surrounding soil. Thorough coverage of these areas is important for good control.
- Army cutworm, armyworm spp., cutworm spp., true armyworm: Apply broadcast to soil surface.

FOLIAR	fl oz product/A (lb a.i./A)
Aster Leafhoppers	
Flea Beetle	1.0 - 4.1
Grasshoppers	(0.025 - 0.10)
Leafhoppers	
Alfalfa Caterpillar	
Aphids	
Bean Leaf Beetle	
Beet Armyworm	
Cloverworm	
Corn Earworm	
Corn Rootworm (Adult)	1.4 - 4.1
Cucumber Beetles	(0.033 - 0.10)
Cutworms	
European Corn Borer	
Fall Armyworm	
Japanese Beetle (Adult)	
Loopers	
Pea Leaf Weevil	

Pea Weevil	
Plant Bug	
Sap Beetle	
Stink Bug	
Southern Armyworm	
Tarnished Plant Bug	
Thrips	
Webworms	
Western Bean Cutworm	
Whitefly	
Banks Grass Mite	
Carmine Mite	3.3 - 4.1
Lygus Species	(0.08 - 0.10)
Twospotted Spider Mite	

Foliar Instructions:

- Apply **A110.05** in 10 or more gallons of spray per acre by ground equipment, or 2 or more gallons of spray per acre by aircraft to achieve thorough coverage.
- When applying by air, 1-2 quarts of emulsified oil may be substituted for equivalent amounts of water in the finished spray. Thorough coverage is important for good control.

Specific Use Restrictions:

- Do not apply more than 0.1 pounds bifenthrin per acre per season as an at-plant application.
- For succulent beans and succulent or dry peas do not exceed more than 0.2 lb bifenthrin per acre per season including at-plant, PRE, PPI, and foliar applications from all bifenthrin containing products.
- For dried beans do not exceed more than 0.3 lb bifenthrin per acre per season including at-plant, PRE, PPI, and foliar applications from all bifenthrin containing products.
- **Pre-Harvest Interval (PHI):** For succulent beans and peas do not apply within 3 days of harvest; for dry beans and peas do not apply within 14 days of harvest.
- **Application Interval:** For succulent beans and peas do not make applications less than 3 days apart; for dry beans and peas do not make applications less than 7 days apart.

SPINACH

AT-PLANT	USE	RATES
	fl oz product/A	fl oz product/1000 row
AI-FLANI	(lb a.i./A)	ft @ 30" rows
	(ID a.l./A)	(lb a.i./1000 row ft)
Rootworm (Larvae)	3.3 - 4.1	0.19 - 0.24
Garden Symphylans	(0.08 - 0.10)	(0.0046 - 0.0057)
Army Cutworm ¹		
Armyworm spp. ¹		
Cutworm spp. ¹		
Grubs	1.7 - 3.3	0.09 - 0.19
Root Maggot	(0.04 - 0.08)	(0.0024 - 0.0046)
Seed Corn Maggot		
True Armyworm ¹		
Wireworm		
At-Plant Instructions:	·	·

• Apply as a 5 to 7 inch T-band over an open furrow, in-furrow with the seed, or banded spray over the soil surface. Thorough coverage is important for good control.

• ¹Army cutworm, armyworm spp., cutworm spp., true armyworm: Apply broadcast to soil surface.

FOLIAR	fl oz product/A (lb a.i./A)
Armyworms Colorado Potato Beetle Corn Earworm Cucumber Beetles Cutworms European Corn Borer Flea Beetles Leafminers Loopers Pepper Weevil Thrips Tomato Hornworm Tomato Pinworm Whitefly ¹	1.4 - 4.1 (0.033 - 0.10)
Broad Mite Banks Grass Mite Carmine Mite Lygus spp. Pacific Spider Mite Two-spotted Spider Mite	3.3 - 4.1 (0.08 - 0.10)

Foliar Instructions:

- Apply **A110.05** in 10-50 or more gallons of spray per acre by ground equipment, or 5-50 or more gallons of spray per acre by aircraft to achieve thorough coverage.
- **1Whitefly:** apply foliar treatments of **A110.05** by group or air at rates of up to 0.1 lb active per acre per application at minimum 7-day intervals up to a maximum of 4 applications.

Specific Use Restrictions:

- Do not apply more than 0.1 pounds bifenthrin per acre per season as an at-plant application.
- Do not exceed more than 0.4 lb bifenthrin per acre per season including at-plant, PRE, PPI, and foliar applications from all bifenthrin containing products.
- Pre-Harvest Interval (PHI): Do not apply within 40 days of harvest.
- Application Interval: Do not make applications less than 7 days apart.

TOBACCO

	USE RATES	
TRANSPLANT	fl oz product/A (lb a.i./A)	fl oz product/1000 row ft @ 30" rows (lb a.i./1000 row ft)
Armyworm spp.		
Cutworm spp.	1.7 - 4.1	0.09 - 0.24
Flea Beetle (Larvae)	(0.04 - 0.10)	(0.0024 - 0.0057)
Mole Cricket		

Stalk Borer	
White Grubs	
Wireworm	

Pre-Transplant Instructions:

• Use of suitable equipment to incorporate into top 4 inches of the soil is required to control below ground pests.

At-Transplant Instructions:

• Apply 0.0625 to 0.1 lb a.i./Acre per application in a water treatment application volume of 10 to 200 gal/A.

FOLIAR PESTS	fl oz product/A (lb a.i./A)
Aphid spp. ¹	
Armyworm spp.	
Chinch Bugs	1.7 - 4.1
Cutworm spp.	(0.04 - 0.1)
Flea Beetle (Adult)	
Grasshoppers	
Hornworm	3.3 - 4.1
Tobacco Budworm	(0.08 - 0.10)
Lygus spp.	4.1
Spider Mites	(0.10)

Foliar Instructions:

- Apply 0.04 to 0.10 lb ai/acre per foliar application up to, and including, layby in 10 or more gallons per acre for thorough control.
- ¹Aphid spp.: See the Resistance Management Recommendations section.

Specific Use Restrictions:

- Not for use in California.
- Do not exceed more than 0.2 lb bifenthrin per acre per season including at-plant, PRE, PPI, and foliar applications from all bifenthrin containing products.
- Pre-Harvest Interval (PHI): Do not apply later than layby.
- Do not make more than 2 foliar applications per season.

TOMATOES, TOMATILLOS, & GROUNDCHERRIES

AT-PLANT	USE	RATES
	fl oz product/A (lb a.i./A)	fl oz product/1000 row ft @ 30" rows (lb a.i./1000 row ft)
Army Cutworm ¹ Armyworm spp. ¹ Cutworm spp. ¹ Flea Beetle (Larvae) Grubs Root Maggot Stalk Borer True Armyworm ¹ Wireworm	1.7 - 3.3 (0.04 - 0.08)	0.09 - 0.19 (0.0024 - 0.0046)

At-Plant Instructions:

- Apply as a 5 to 7 inch T-band over an open furrow, in-furrow with the seed, or banded spray over the soil surface. Thorough coverage is important for good control.
- May also be applied through transplant water at the time of transplanting.
- ¹Army cutworm, armyworm spp., cutworm spp., true armyworm: Apply broadcast to soil surface.

FOLIAR PESTS	fl oz product/A	
	(lb a.i./A)	
Aphids		
Armyworms (Beet Armyworm, Fall		
Armyworm, Southern Yellow-striped		
Armyworm)		
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	(0.033 - 0.08)	
Loopers		
Lygus spp.		
Melonworm		
Pea Weevil		
Pea Leaf Weevil		
Pickleworm		
Plant Bug		
Rindworm		
Salt March Caterpillar		
Sap Beetle		
Seedpod Weevil		
Squash Bugs		
Stink Bug spp.		
Tobacco Budworm		
Tarnished Plant Bug		
Thrips		
Two-spotted Spider Mite		
Whitefly		
Two-spotted Spider Mite	3.3 - 4.1	
The spotted opider with	(0.08 - 0.10)	

• Apply **A110.05** in 10-50 or more gallons of spray per acre by ground equipment, or 5-50 or more gallons of spray per acre by aircraft to achieve thorough coverage.

Specific Use Restrictions:

- Not for use in California.
- Do not apply more than 0.1 pounds bifenthrin per acre per season as an at-plant application.
- Do not exceed more than 0.4 lb bifenthrin per acre per season including at-plant, PRE, PPI, and foliar applications from all bifenthrin containing products.
- Pre-Harvest Interval (PHI): Do not apply within 1 days of harvest.
- Application Interval: Do not make applications less than 10 days apart.

TREE NUTS CROP GROUP 14-12

African nut-tree; almond; beech nut; 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; tropical almond; walnut, black; walnut, English; yellowhorn; including all cultivars, varieties and/or hybrids of these.

	USE RATES
FOLIAR	fl oz product/A
	(lb a.i./A)
Black Pecan Aphid	
Codling Moth	
Filbert Worm	
Hickory Shuckworm	
Leaf-footed Bugs	
Navel Orangeworm	
Oblique Banded Leafroller	2.1 - 8.3
Peach Twig Borer	(0.05 - 0.20)
Pecan Leaf Casebearer	
Pecan Nut Casebearer	
Pecan Phylloxera	
Plant Bugs	
Stink Bugs	
Walnut Aphid	
European Red Mite	3.3 - 8.3
Pecan Weevil	(0.08 - 0.20)
Spider Mite spp.	(0.06 - 0.20)
Walnut Husk Fly	4.1 - 8.3
vvaillut Husk Fly	(0.10 - 0.20)

Foliar Instructions:

 Apply A110.05 in 50 or more gallons of spray per acre by ground equipment as a concentrate, 200 or more gallons of spray by ground equipment as a dilute, or 10 or more gallons of spray per acre by aircraft to achieve thorough coverage. Thorough coverage is important for good control.

Specific Use Restrictions:

• Do not exceed more than 0.5 lb bifenthrin per acre per season including at-plant, PRE, PPI, and foliar applications from all bifenthrin containing products.

- **Pre-Harvest Interval (PHI):** Do not apply within 21 days of harvest for pecans, or 7 days for all other tree nut crops.
- Application Interval: Do not make applications less than 15 days apart.
- Do not graze livestock in treated orchards or cut treated cover crops for feed.

TUBEROUS AND CORM SUBGROUP 1C

Arracacha; arrowroot; artichoke, Chinese; artichoke, Jerusalem; canna, edible; cassava, bitter and sweet; chayote (root); chufa; dasheen; ginger; leren; potato; sweet potato; tanier; turmeric; yam bean; yam, true; including all cultivars, varieties and/or hybrids of these.

	USE RATES
AT-PLANT	fl oz product/A
	(lb a.i./A)
Grape Colaspis	
Rootworms	6.2 - 12.4
Sweet Potato Flea Beetle	
White Grubs	(0.15 - 0.30)
Wireworms	

At-Plant Instructions:

• Apply as a soil incorporated broadcast, directed bed spray, or T-band spray into the planting furrow in a minimum of 10 gallons of spray per acre. Thorough coverage is important for good control. Refer to **At-Plant Application Instructions** for application rates at various row spacings.

• • • • • • • • • • • • • • • • • • • •	
LAY-BY	fl oz product/A
	(lb a.i./A)
Grape Colaspis	
Rootworms	6.2 - 12.4
Wireworms	(0.15 - 0.30)
White Grubs	

Lay-By Instructions:

 A110.05 may be applied as one or more soil directed and incorporated treatments at cultivation or lay-by. Apply A110.05 to the drill area and incorporate by cultivation equipment set to throw soil towards the drill area. Apply A110.05 in 10 or more gallons of spray per acre to achieve thorough coverage.

PRE-PLANT INCORPORATED (PPI)	fl oz product/A (lb a.i./A)
Grape Colaspis Rootworm Sweet Potato Flea Beetle White Grub Wireworm	6.2 - 12.4 (0.15 - 0.30)

PPI Instructions:

Apply A110.05 to the planting area as a broadcast application or a banded application prior to planting
and incorporate to the planting depth. Apply A110.05 in 10 or more gallons of spray per acre to
achieve thorough coverage.

FOLIAR	fl oz product/A (lb a.i./A)
Banded Cucumber Beetle	1.4 - 4.1

Black Flea Beetle	(0.033 - 0.10)
Click Beetles	
Corn Wireworm	
Cucumber Beetles	
Flea Beetles	
Japanese Beetle Grubs	
May/June Beetles	
Rootworms	
Southern Potato Beetle	
Sugarcane Beetle	
Sweet Potato Flea Beetle	
Sweet Potato Weevil	
Tobacco Wireworm	
Whitefringed Beetle	
White Grub	

Foliar Instructions:

• Apply **A110.05** in 10 or more gallons of spray per acre by ground equipment, or 3 or more gallons of spray per acre by aircraft to achieve thorough coverage.

Specific Use Restrictions:

- Not for use in California.
- Do not apply more than 0.3 pounds bifenthrin per acre per season as an at-plant application.
- Do not exceed more than 0.5 lb bifenthrin per acre per season including at-plant, PRE, PPI, and foliar applications from all bifenthrin containing products.
- Pre-Harvest Interval (PHI): Do not apply within 21 days of harvest.
- Application Interval: Do not make applications less than 21 days apart.
- Do not make more than 2 foliar applications per season.

STORAGE AND DISPOSAL

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

STORAGE: Store in a tightly closed container in a cool, dry place. Store in original container and out of reach of children, preferably in a locked storage area.

PESTICIDE DISPOSAL: Pesticide spray mixture or rinsate that cannot be used should be disposed of in a landfill approved for pesticides. Improper disposal of excess pesticide spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by the use according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER HANDLING:

<The appropriate "Container Handling" text below (based on the net contents of the pesticide inside the container) will appear on the final printed label.>

[For plastic containers ≤ 5 gallons: Nonrefillable Container: Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. 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 ¼ full with water and recap. After the cap is securely affixed to the container, shake for 10 seconds. Pour rinsate into application equipment or a mix tank. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration.]

[For plastic containers > 5 gallons: Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple Rinse as follows: Empty the remaining contents into application equipment or a mix tank and let drain for an additional 10 seconds after the flow begins to drip. Fill the container ¼ full with water. Recap 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. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration.]

LMITATION OF WARRANTY AND LIABILITY

IMPORTANT: READ BEFORE USE. Read the entire Directions for Use, Conditions of Warranties and Limitations of Liability before using this product. If these terms and conditions are not acceptable, return the unopened product container at once. By using this product, user or buyer accepts the following Disclaimer of Warranties and Limitations of Liability. CONDITIONS: The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Ineffectiveness, injury, and other unintended consequences may result because of such factors as manner of use or application (including misuse), the presence of other materials, weather conditions, and other unknown factors, all of which are beyond the control of ATTICUS, LLC. All such risks shall be assumed by the user or buyer. DISCLAIMER OF WARRANTIES: To the extent consistent with applicable law, ATTICUS, LLC makes no other warranties, express or implied, of merchantability or of fitness for a particular purpose or otherwise, that extend beyond statements on this label. LIMITATIONS OF LIABILITY: To the extent consistent with applicable law, neither ATTICUS, LLC the manufacturer, nor the Seller shall be liable for any indirect, special, incidental or consequential damages resulting from the use, handling, application, storage, or disposal of this product. To the extent consistent with applicable law, the exclusive remedy of the user or buyer for any and all losses, injuries or damages resulting from the use, handling, application, or storage of this product, whether in contract, warranty, tort, negligence, strict liability or otherwise, shall not exceed the purchase price paid.

[A110.05] is a trademark of Atticus, LLC

{LANGUAGE ON LABEL AFFIXED TO CONTAINER}

RESTRICTED USE PESTICIDE

DUE TO TOXICITY 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.

A110.05™

[A110.05 is a versatile, broad-spectrum insecticide that can be mixed directly with liquid fertilizers for control of insect and mite pests on agricultural crops. It can be applied as a PPI, at-plant, PRE, or as a foliar application.]

ACTIVE INGREDIENT:

(% by weight)

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

This product contains 3.1 pounds active ingredient per gallon.

KEEP OUT OF REACH OF CHILDREN CAUTION

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.)

	FIRST AID
If swallowed:	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 do so by the poison control center or doctor.
	 Do not give anything by mouth to an unconscious person.
If on skin or clothing:	 Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes.
	 Call a poison control center or doctor for treatment advice.
If in eyes:	 Hold eye open and rinse slowly and gently with water for 15-20 minutes.
	 Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
	 Call a poison control center or doctor for treatment advice.
	HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact SafetyCall at **1-844-685-9173** for emergency medical treatment information.

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.

For Chemical Emergency:

Spill, Leak, Fire, Exposure, or Accident, Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 or +1 703-527-3887 (collect calls accepted)

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Harmful if swallowed or absorbed through skin. Causes moderate eye irritation.

Wear protective eyewear. Avoid contact with skin, eyes, or clothing. Remove and wash contaminated clothing before reuse. Wear long-sleeved shirt, long pants, socks, shoes, and protective eyewear. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet

Personal Protective Equipment (PPE)

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

- Long-sleeved shirt and long pants;
- Chemical-resistant gloves made of any waterproof material such as polyvinyl chloride, nitrile rubber or butyl rubber;
- Shoes plus socks.

Handlers who may be exposed to the concentrate through mixing, loading, application, or other tasks must wear:

- Long-sleeved shirt and long pants;
- Chemical-resistant gloves made of any waterproof material such as polyvinyl chloride, nitrile rubber or butyl rubber;
- Shoes plus socks;
- 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.

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 in the treatment area.

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

PHYSICAL OR CHEMICAL HAZARDS

Do not mix or allow coming in contact with any oxidizing agent. Hazardous chemical reaction may occur. $\,$

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal. **STORAGE:** Store in a tightly closed container in a cool, dry place. Store in original container and out of reach of children, preferably in a locked storage area.

PESTICIDE DISPOSAL: Pesticide spray mixture or rinsate that cannot be used should be disposed of in a landfill approved for pesticides. Improper disposal of excess pesticide spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by the use according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER HANDLING:

<The appropriate "Container Handling" text below (based on the net contents of the pesticide inside the container) will appear on the final printed label.> [For plastic containers ≤ 5 gallons: Nonrefillable Container: Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. 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 ¼ full with water and recap. After the cap is securely affixed to the container, shake for 10 seconds. Pour rinsate into application equipment or a mix tank. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration.]

[For plastic containers > 5 gallons: Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple Rinse as follows: Empty the remaining contents into application equipment or a mix tank and let drain for an additional 10 seconds after the flow begins to drip. Fill the container ¼ full with water. Recap 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. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration.]

See inside label booklet for additional Precautionary Statements and Directions for Use.

Manufactured for: Atticus, LLC 5000 CentreGreen Way, Suite 100 Cary, NC 27513 EPA Reg. No.: 91234-XX
EPA Est. No.: _____
NET WEIGHT: _____