

#### U.S. ENVIRONMENTAL PROTECTION AGENCY

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

72159-20

EPA Reg. Number:

Date of Issuance:

6/28/19

NOTICE OF PESTICIDE:

X Registration
Reregistration
(under FIFRA, as amended)

Term of Issuance: Conditional

Name of Pesticide Product:

AGRISEL BIFENTHRIN PRO 2E INSECTICIDE

Name and Address of Registrant (include ZIP Code):

Jane Miller Biologic Regulatory Consulting, Inc. 10529 Heritage Bay Blvd. Naples, FL 34120

**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.
- 2. You are required to comply with the data requirements described in the DCI or EDSP Order identified below:

Signature of Approving Official:	Date:
Catherine Aubee, Chief	6/28/19
Invertebrate-Vertebrate Branch 1, Registration Division (7505P)	

EPA Form 8570-6

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> a. Bifenthrin GDCI-128825-902 GDCI-128825-1114 GDCI-128825-1158 GDCI-128825-1159

You must comply with all of the data requirements within the established deadlines. If you have questions about the Generic DCI or EDSP Order 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. Make the following label changes before you release the product for shipment:
  - Revise the EPA Registration Number to read, "EPA Reg. No. 72159-20."
- 4. 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 04/16/2019

If you have any questions, please contact Dr. Helen Hull-Sanders by phone at 703-347-0243, or via email at <a href="mailto:hull-sanders.helen@epa.gov">hull-sanders.helen@epa.gov</a>.

Enclosure

# RESTRICTED USE PESTICIDE TOXIC TO FISH AND AQUATIC ORGANISMS

FOR RETAIL SALE TO AND USE ONLY BY CERTIFIED APPLICATORS, OR PERSONS UNDER THEIR DIRECT SUPERVISION, AND ONLY FOR THOSE USES COVERED BY THE CERTIFIED APPLICATOR'S CERTIFICATION.

GROUP 3 INSECTICIDE

# Agrisel Bifenthrin Pro 2E Insecticide

# **Active Ingredient:**

Bifenthrin\*

(2 methyl[1,1'-biphenyl]-3-yl) methyl 3-(2-chloro-3,3,3-trifluoro-1-propenyl)-2,2-dimethylcyclopropanecarboxylate.25.0%Other Ingredients\*\*:75.0%TOTAL:100.0%

# KEEP OUT OF REACH OF CHILDREN WARNING/AVISO

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

	FIRST AID
If Swallowed	<ul> <li>Immediately call a poison control center or doctor.</li> <li>Do not induce vomiting unless told to do so by the poison control center or doctor.</li> <li>Do not give any liquid to the person.</li> <li>Do not give anything by mouth to an unconscious person.</li> </ul>
If In Eyes	<ul> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
If On Skin or Clothing	<ul> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
If Inhaled	<ul> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>
	Call a poison control center or doctor for further treatment advice.    Colon   This are duction of the second of the secon

**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. Contains petroleum distillates. Vomiting may cause aspiration pneumonia.

**EMERGENCY TELEPHONE NUMBERS:** Have the product container or label with you when calling a poison control center or doctor, or going for treatment. FOR 24- HOUR EMERGENCY MEDICAL ASSISTANCE CALL: **1-800-222-1222**. FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure, or accident call CHEMTREC **1-800-424-9300**.

EPA Reg. No. 72159-NEW

EPA Est. No.

ACCEPTED

06/28/2019

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 70450,00

72159-20

Manufactured For: Agrisel USA LLC P.O. Box 3528 Suwanee, GA 30024

Net Contents: \_\_\_ gal.

 $<sup>^{\</sup>star}$ Cis isomers 97% minimum, trans isomers 3% maximum.  $^{\star\star}$ Contains xylene range aromatic solvents.

This product contains 2 pounds active ingredient per gallon.

# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**WARNING**. May be fatal if swallowed. Causes substantial but temporary eye injury. Do not get into eyes or on clothing. Wear protective eyewear such as goggles or safety glasses. Harmful if inhaled, or absorbed through skin. Avoid breathing vapor or spray mist. Avoid contact with skin, eyes, or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

# Personal Protective Equipment (PPE)

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

# Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves such as barrier laminate, nitrile, rubber, neoprene, rubber, or Viton
- 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.

# **Engineering Controls:**

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

# **USER SAFETY RECOMMENDATIONS**

### Users should:

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

# **ENVIRONMENTAL HAZARDS**

This pesticide is extremely toxic to fish 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 run-off from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwaters.

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

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

# PHYSICAL AND CHEMICAL HAZARDS

Combustible. Do not use or store near heat or open flame. Do not mix or allow coming into contact with oxidizing agents, 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 regulation.

# RESISTANCE MANAGEMENT

**Agrisel Bifenthrin Pro 2E Insecticide** is a Group 3 insecticide (acaricide). Insect/mite biotypes resistant to Group 3 insecticides may eventually dominate the insect/mite population if Group 3 insecticides (acaricides) are used repeatedly in the same field or in successive years as the primary method of control for targeted species; partial or total loss of insect/mite control can occur.

If ineffective control cannot be attributed to improper application or extreme weather conditions, a resistant strain of insect may be present. If you experience difficulty with control and resistance is a reasonable cause, immediately consult your local company representative or agricultural advisor for the best alternative method of control in your area.

To delay insecticide (acaricide) resistance:

- Avoid consecutive use of Agrisel Bifenthrin Pro 2E Insecticide or other Group 3 insecticides (acaricides) that
  have a similar mode of action on the same insect/mite species.
- Use tank mixtures or premixes with insecticides (acaricides) 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.
- Base insecticide (acaricide) use on a comprehensive IPM program.
- Monitor treated insect/mite populations for loss of field efficacy.
- Contact your local extension specialist, certified crop advisor, and/or Agrisel USA, Inc. representative for insecticide (acaricide) resistance management and/or IPM recommendations for the specific site and resistant pest problems.

# **AGRICULTURAL USE REQUIREMENTS**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- coveralls
- chemical-resistant gloves, such as barrier laminate or nitrile rubber or neoprene rubber or Viton
- · shoes plus socks

# **Application Instructions**

Application rates are variable according to pest pressure, timing of sprays, and field scouting. Use lower rates within the specified rate range in areas of light to moderate infestation; higher rates within the specified rate range in areas of heavy insect and mite pressure. Use the higher rates within the specified rate range in arid climates. Apply as directed in the application rate tables indicated.

Do not cultivate within 10 feet of a body of water; allow for the growth of a vegetated filter strip.

**New York State Restriction:** Do not apply this product within 100 feet (using ground equipment) to 300 feet (using aerial equipment) of coastal marshes or streams that drain into coastal marshes.

# **CHEMIGATION USE DIRECTIONS**

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

For LEPA, irrigation use a minimum of 0.75 inch of water per acre. Where non-emulsified oils are used as the diluent, use 1 to 2 pints per acre.

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 operations, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise. Failure to cease the application during a mechanical stoppage may result in undesirable residues to adjacent areas.

The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Do not apply when wind speed favors drift beyond the area intended for treatment.

Apply **Agrisel Bifenthrin Pro 2E Insecticide** continuously for the duration of the water application. Dilute **Agrisel Bifenthrin Pro 2E Insecticide** in sufficient volume to ensure accurate application over treatment area. When using chemigation, apply with a minimum of 0.5 inch per acre of irrigation water. Agitation generally is not required when a suitable diluent is used. Conduct a diluents test to ensure that phase separation will not occur during dilution and application. Failure to achieve a uniform dilution throughout the time of application may result in undesirable residues or less than desirable control.

# **BUFFER ZONES**

# **Vegetative Buffer Strip**

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

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

For guidance, refer to the following publication for information on constructing and maintaining effective buffers: Conservation Buffers to Reduce Pesticide Losses. Natural Resources Conservation Services. USDA, NRCS. 2000. Fort Worth, Texas. 21 pp. http://www.nrcs.usda.gov/Internet/FSE\_DOCUMENTS/nrcs144p2\_030970.pdf

# Buffer Zone for Ground Application (groundboom, overhead chemigation, or airblast)

Do not apply within 25 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, 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).

# SPRAY DRIFT REQUIREMENTS

**Wind Direction and Speed:** Only apply this product if the wind direction favors on-target deposition. Do not apply when the wind velocity exceeds 15 mph.

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

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

**Additional Requirements for Ground Applications:** Wind speed must be measured adjacent to the application site on the upwind side, immediately prior to application. For ground boom applications, apply using a nozzle height of no more than 4 feet above the ground or crop canopy. For airblast applications, turn off outward pointing nozzles at row ends and when spraying the outer two rows. To minimize spray loss over the top in orchard applications, spray must be directed into the canopy.

**Additional Requirements for Aerial Applications:** The spray boom should be mounted on the aircraft as to minimize drift caused by wingtip or rotor vortices. The minimum practical boom length should be used and must not exceed 75% of the wing span or 80% rotor diameter. Flight speed and nozzle orientation must be considered in determining droplet size.

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

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

# **ROTATIONAL CROPS**

Crops for which bifenthrin tolerances exist may be rotated at any time. For all other crops, wait 30 days following the final application of bifenthrin before rotating.

# **Tank Mixtures**

**Agrisel Bifenthrin Pro 2E Insecticide** can be applied in tank mixtures with other products approved for use on registered crops. Observe all restrictions and precautions which appear on the labels of these products. Perform a compatibility test before mixing.

# AGRICULTURAL CROP USES ARTICHOKES

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		RA	TE					
CROP PEST		LBS. Al/A	FL. OZ./A	APPLICATION INSTRUCTIONS				
	Artichoke plume moth Cribrate weevil	0.1		Apply when pest population reaches damaging threshold.  Aerial Application: Apply specified rate in a minimum of 10 gallons per acre.  Ground Application: Apply a full cover spray in a minimum of 75 gallons of finished spray per acre.				

# **RESTRICTIONS:**

Repeat as necessary to maintain control, but not more often than 15-day intervals.

Do not exceed 0.5 lb. a.i. (1 quart formulated product) per acre per season.

PHI: 5 days

# **BRASSICA CROPS**

		RA	TE	
CROP	PEST	LBS. AI/A	FL. OZ./A	APPLICATION INSTRUCTIONS
vegetables including: Broccoli Brussels sprouts Cabbage Cauliflower Cavolo broccolo Chinese broccoli (gai lon, white flowering broccoli) Chinese cabbage (napa) Chinese mustard Cabbage (gai choy) Kohlrabi	Aphids Armyworms Corn earworm Crickets Cucumber beetles Cutworms Diamondback moth Flea beetles Ground beetles Imported cabbageworm Leafhoppers Loopers Saltmarsh caterpillar Stink bugs Thrips Tobacco budworm Whitefly Wireworm (Adults) Banks grass mite Carmine mite Lygus bugs Pacific spider mite Two-spotted spider mite	0.033 to 0.1	2.1 to 6.4 5.12 to 6.4	Aerial Application: Apply in a minimum of 2 gallons of finished spray per acre. 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray.  Ground Application: Apply in a minimum of 10 gallons per acre.  Thorough coverage is essential to achieve control.

# RESTRICTIONS:

Do not apply more than 0.5 lb. a.i. (1 quart formulated product) per acre per season. Do not make more than 5 applications after bloom.

Do not make applications less than 7 days apart.

PHI: 7 days

# DIICUDEDDIEC

		BUSHBERR		
CROP	DECT	RA	1 =	ADDITION INSTRUCTIONS
	PEST	LBS. AI/A	FL. OZ./A	APPLICATION INSTRUCTIONS
Blueberry (highbush & lowbush) Currant Elderberry Gooseberry Huckleberry	Aphids Blueberry maggot Fruitworms Japanese beetle Leafhoppers Leaf rollers Plum curculio Spanworm	0.033 to 0.1		Aerial Application: Apply a minimum of 2 gallons of finished spray per acre.  Ground Application: Apply using a minimum of 10 gallons of finished spray per acre.
	Carmine mite  Lygus spp.  Pacific spider mite  Two-spotted spider mite	0.08 to 0.1	5.12 to 6.4	

# **RESTRICTIONS:**

Do not make applications less than 7 days apart.

Do not apply more than 0.5 lb. a.i. ingredient (1 quart formulated product) per acre per season.

PHI: 1 day

# **CANEBERRIES**

	PEST	RA <sup>*</sup>	ΓΕ	
CROP		LBS. AI/A	FL. OZ./A	APPLICATION INSTRUCTIONS
Bingleberries Blackberries Dewberries Loganberries	Leafrollers Orange tortrix Root weevils	0.05 to 0.1	3.2 to 6.4	<b>Aerial Application:</b> Apply in a minimum of 10 gallons per acre using sufficient water to obtain full coverage of foliage.
Lowberries Marionberries Olallieberries Raspberries				<b>Ground Application:</b> Apply in a minimum 50 gallons per acre using sufficient water to obtain full coverage of foliage.
Youngberries				One application may be made pre-bloom and a second application may be made post-bloom.
	Raspberry crown borer Spider mites	0.1	6.4	For Crown Borer: Apply 0.1 lb. a.i./A, post-harvest (fall) or pre-bloom (spring), as a drench application directed at the crown of plants in a minimum of 200 gallons water/acre. Greater efficacy is observed at higher water gallonage (up to 400 gallons/A) or in an application prior to a significant rainfall event.

# **RESTRICTIONS:**

Do not exceed 0.2 lb. a.i. (12.8 ounces formulated product) per acre per season.

PHI: 3 days
For Crown Borer only:

Do not make both pre-bloom foliar and pre-bloom drench applications.

CANOLA, CRAMBE, RAPESEED

		RAT	ΓΕ	
CROP	PEST	LBS. AI/A	FL. OZ./A	APPLICATION INSTRUCTIONS
Crambe Rapeseed	Aphids Armyworms Cutworms Diamondback moth Flea beetle Flea hopper Grasshopper Loopers Other Lepidopterous larvae Plant bug Seedpod weevil Stink bugs Thrips Whitefly	0.033 to 0.04	2.1 to 2.6	Aerial Application: Apply in a minimum of 2 gallons of finished spray per acre. 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray.  Ground Application: Apply in a minimum of 10 gallons per acre. When applying by air, thorough coverage is essential to achieve control.

RESTRICTIONS:

Do not apply more than 0.08 lb. a.i. (5.12 ounces formulated product) per acre per season.

Do not make applications less than 14 days apart.

PHI: 35 days

**CHRISTMAS TREES (Washington and Oregon only)** 

			ΓĒ	APPLICATION INSTRUCTIONS
CROP	PEST	LBS. AI/A	FL. OZ./A	
Christmas Trees	Root weevil Spruce spider mite	0.06 to 0.1		Aerial Application: Apply a minimum of 5 gallons per acre.  Ground Application: Apply using a minimum of 20 gallons of finished spray per acre.  Agrisel Bifenthrin Pro 2E Insecticide is generally not toxic to Christmas trees. However, make applications to a small representative group of plants to ensure that a particular variety grown under current conditions is not unusually sensitive to Agrisel Bifenthrin Pro 2E Insecticide.

# RESTRICTIONS:

Maintain a minimum of 21 days between applications.

Do not apply more than 0.1 lb. a.i. (6.4 ounces formulated product) per acre per treatment. Do not make more than 3 applications in a crop year.

Do not apply through any irrigation system.

**CILANTRO, CORIANDER** 

		RA <sup>-</sup>	ΓΕ	
CROP	PEST	LBS. Al/A	FL. OZ./A	APPLICATION INSTRUCTIONS
Cilantro, Coriander	Aphids Beet armyworm Cabbage looper Cutworm Flea beetle Grasshopper Leafminer Saltmarsh caterpillar Spotted cucumber beetle Thrips Whitefly	0.033 to 0.1		Aerial Application: Apply a minimum of 2 gallons per acre.  Ground Application: Apply using a minimum of 10 gallons of finished spray per acre.  Apply using sufficient water to obtain uniform coverage. Apply as needed.
	Two-spotted spider mite	0.08 to 0.1	5.12 to 6.4	

# RESTRICTIONS:

Do not make applications less than 7 days apart.

Do not apply more than 0.5 lb. a.i. ingredient (32 ounces formulated product) per acre per season.

PHI: 3 days

CITRUS (1 day PHI)

CROP	PEST	RA	TE	APPLICATION INSTRUCTIONS
CROP	PEST	LBS. AI/A	FL. OZ./A	APPLICATION INSTRUCTIONS
(1 day PHI)	Diaprepes root weevil (Diaprepes abbreviatus)  Southern blue green root weevil (Pachaneus litus)  Blue Green Citrus Root weevil (Pachaneus opalus)  Brown leaf notcher (Epicurus mexicanus)  Little leaf notcher (Artipus floridanus)  Fire ant (Solenopsis spp.) Asian cockroach (Blattella asahinae)	0.25 to 0.5	6.4 to 16	Ground Application: Apply Agrisel Bifenthrin Pro 2E Insecticide to bare soil beneath citrus trees. Agrisel Bifenthrin Pro 2E Insecticide must be uniformly applied from the trunk to the drip line of tree; apply in a minimum of 40 gallons of dilute spray per acre. Greater spray volume should ensure greater uniformity of coverage. A pre- and post-application irrigation may aid in the uniformity of coverage as well. Agrisel Bifenthrin Pro 2E Insecticide protects citrus tree roots from Diaprepes and other citrus root weevil feeding by forming a barrier which provides contact activity on newly hatched larvae (neonates). As citrus root weevil eggs hatch in new foliage, neonates fall to the soil surface beneath the tree and come in contact with Agrisel Bifenthrin Pro 2E Insecticide as they attempt to burrow into the root zone. Disturbance of the soil beneath trees should be minimized. Timing of Agrisel Bifenthrin Pro 2E Insecticide applications is critical. Current information suggests that peak emergence of adult Diaprepes Weevil varies by citrus growing region and these emergence peaks can be dramatically affected by environmental factors, such as soil moisture. Typically, two peaks are observed for Diaprepes, first in spring then late summer or early fall. Southern Blue-Green and Blue-Green Citrus Weevils and Fuller Rose Beetle and Little Leaf Notches typically exhibit three emergence peaks in spring, summer and fall. Since emergence varies seasonally and by location, timing of Agrisel Bifenthrin Pro 2E Insecticide application can be accurately forecast by observing adults. Adults are most active early morning and late afternoon; numbers can be estimated by trapping throughout spring and summer (emergence periods). Egg laying will occur for 8 to 10 weeks following adult emergence from the soil; larval invasion of the soil will begin 2-3 weeks following adult emergence. It is critical to have the Agrisel Bifenthrin Pro 2E Insecticide is one of several effective tools in an integrated pest management program for Citru

# RESTRICTIONS:

Do not apply through irrigation systems.

Do not allow any application of Agrisel Bifenthrin Pro 2E Insecticide to contact fruit or foliage.

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

Apply the specified dosage in a minimum of 40 gallons of finished spray per acre. Ground application only. Do not apply by air.

PHI: 1 day

# **CONIFER SEED ORCHARDS**

(For use only in Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, Oklahoma, South Carolina, Tennessee, Texas, and Virginia)

CROP	PEST	RA	ATE	APPLICATION INSTRUCTIONS
CROP	PESI	LBS. AI/A	FL. OZ./A	APPLICATION INSTRUCTIONS
Conifer	Cone worms	0.1 to 0.2	6.4 to 12.8	Aerial Application: Apply a minimum of 10 gallons per
Seed	Seed bugs			acre or 0.5 gallon refined vegetable oil per acre.
Orchards	Seed worms			
				<b>Ground Application:</b> Apply using a minimum of 100-500
				gallons of finished spray per acre.
				Apply in sufficient water to obtain thorough coverage.
				Begin applications 7 days after peak pollen flight and
				continue on 30-day intervals up to a maximum of 0.6 lb.
				a.i. per acre per season.

# RESTRICTIONS:

Do not apply more than 0.6 lb. a.i. (38.4 ounces formulated product) per acre per season.

Do not make more than 6 applications in a crop season.

Do not apply through any irrigation system.

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

To calculate the amount of **Agrisel Bifenthrin Pro 2E Insecticide** to use per acre based on row spacing, refer to the conversion chart below.

CROP	PEST	RATE		APPLICATION INSTRUCTIONS
CROP	PESI	LBS. AI/A	FL. OZ./A	APPLICATION INSTRUCTIONS
Field Corn (grain and silage) Popcorn Field Corn grown for seed (atplant use)  Army cutworm Other cutworm species Grubs Seed corn beetle Seed corn maggot  Corn rootworm larvae (Northern, Southern, bl. a.i. per 1,000	Apply as a 5- to 7-inch T-band treatment over an open seed furrow. Position the spray nozzle behind the planter shoe in front of the press wheel centered over the row. Use the table above to determine the <b>Agrisel Bifenthrin Pro 2E Insecticide</b> needs per acre. Apply in a minimum of 3 gallons of finished spray per acre. (3 gallons per acre is approximately 0.17 gallon per 1,000 linear feet of row at 30-inch spacing).			
	Grubs Seed corn beetle Seed corn maggot True armyworm Other armyworm species	lb. a.i. per 1,000 linear feet of row (30-inch	oz. per 1,000	Mix Agrisel Bifenthrin Pro 2E Insecticide with water or fertilizer in the following manner:  1) Fill the spray tank approximately one-half full with water or liquid fertilizer.  2) Add the proper amount of Agrisel Bifenthrin Pro 2E Insecticide.  3) Add the rest of the water or fertilizer.  4) Provide sufficient agitation during mixing and application to maintain a uniform spray mixture.
				Applications of Agrisel Bifenthrin Pro 2E Insecticide alone or in specified tank mixtures, in conjunction with in furrow pop-up fertilizers may be used. Perform a jar compatibility test with appropriate ratio of Agrisel Bifenthrin Pro 2E Insecticide and fertilizer to ensure mixture will stay in solution. Maintain constant agitation during mixing and application.

# RESTRICTIONS:

Do not apply to soil where there is greater than 30% cover of crop residue remaining.

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

Do not apply more than 0.1 lb. a.i. (6.4 fl. oz. **Agrisel Bifenthrin Pro 2E Insecticide**) per acre per season as an at plant application.

PHI: 30 days

Row spacing (inches)	40	38	36	30
Agrisel Bifenthrin Pro 2E Insecticide (pounds a.i. per acre)	0.060	0.064	0.069	0.080
Agrisel Bifenthrin Pro 2E Insecticide (formulated ounces per acre)	3.9	4.1	4.4	5.12

FIELD CORN (GRAIN AND SILAGE), POPCORN, FIELD CORN GROWN FOR SEED Pre-plant Incorporated (PPI) & Pre-emergence (PRE)

CROP	DEST	PEST RATE		APPLICATION INSTRUCTIONS
CROP	PESI	LBS. AI/A	FL. OZ./A	APPLICATION INSTRUCTIONS
Field Corn (Grain and Silage) Popcorn Field Corn Grown For Seed Pre- plant Incorporated (PPI) & Pre- emergence (PPE)	Armyworm spp. Black cutworm Seedcorn maggot Stalk borer White grubs Wireworm	0.047 to 0.062 PPI	3 to 4 PPI	The 3-4 oz./A rate must be applied as PPI and can be tank mixed and applied with PPI herbicides. Incorporation of <b>Agrisel Bifenthrin Pro 2E Insecticide</b> must not be any deeper than the intended planting depth and no deeper than 3 inches. Incorporation depth must be close to the intended seed planting depth.
	Armyworm spp. Black cutworm Stalk borer	0.04 PRE	2.56 PRE	The 2.56 oz./A rate may be applied PRE and can be tank mixed and applied with PRE herbicides.

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

	(Foliar use)						
CROP	PEST		TE	APPLICATION INSTRUCTIONS			
CKOF	PESI	LBS. AI/A	FL. OZ./A	AFFLICATION INSTRUCTIONS			
Field Corn (Grain and Silage) Popcorn Field Corn Grown For Seed (Foliar Use)	Aphids Army cutworm Beet armyworm Cereal leaf beetle Chinch bug Common stalk borer Corn earworm Corn rootworm (Adults) Cucumber beetle (Adults) Cutworm species European corn borer Fall armyworm Flea beetle Grasshoppers Greenbug Japanese beetle (Adults) Sap beetle Southern armyworm Southern corn leaf beetle Southwestern corn borer Stinkbugs Tarnished plant bug True armyworm or Armyworm species Webworms Western bean cutworm Yellowstriped armyworm  Banks grass mite Carmine mite Two-spotted spider mite	0.033 to 0.1  0.08 to 0.1	2.1 to 6.4  5.12 to 6.4	Aerial Application: Apply in a minimum of 2-5 gallons of finished spray per acre. To improve control by aircraft, use 5 gallons of finished spray per acre particularly when initial populations are heavier than normal. 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray.  Ground Application: Apply in a minimum of 10 gallons per acre with ground equipment.  Thorough coverage is essential to achieve control.  To control ear-attacking pests: Apply Agrisel Bifenthrin Pro 2E Insecticide just before silking and repeat as necessary to maintain control, but do not exceed maximum application rates and reapplication intervals listed elsewhere in this section.  Southwestern corn borer, European corn borer: Make application for corn borer control with initial application at or shortly before egg hatch.  For control of other insect pests: Apply when pests first appear and repeat as necessary, but do not exceed maximum application rates and reapplication intervals listed elsewhere in this section.  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 wide-spread 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. a.i. per acre in tank mixture has demonstrated good control under these conditions.			
				For mite control in Texas, New Mexico, Oklahoma, and Arizona, apply in a minimum of 5 gallons of finished spray per acre by aircraft or in a minimum of 10 gallons per acre with ground equipment.			

# **RESTRICTIONS:**

Do not apply more than 0.3 lb. a.i. (19.2 ounces formulated product) per acre per season including PRE & PPI, at-plant, plus foliar applications. In CA, do not exceed the maximum rate of 0.2 lb. a.i. per acre per season.

Do not graze livestock in treated areas or cut treated crops for feed within 30 days of the last application.

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

Do not make aerial or ground applications to corn if heavy rainfall is imminent. Use of **Agrisel Bifenthrin Pro 2E Insecticide** on corn is prohibited in all coastal counties.

PHI: 30 days

# SWEET CORN (GRAIN AND SILAGE) and SWEET CORN GROWN FOR SEED (At-Plant Use)

To calculate the amount of **Agrisel Bifenthrin Pro 2E Insecticide** to use per acre based on row spacing refer to the conversion chart below.

CROP	PEST	R.A	ATE .	APPLICATION INSTRUCTIONS
OKOI	1 201	LBS. AI	FL. OZ.	AIT EIGATION MOTROGITORO
Sweet Corn (Grain and Silage) Sweet Corn Grown For Seed (At-Plant Use)	Corn rootworm larvae (Northern, Southern, Western)	0.0046 lb. a.i. per 1,000 linear feet of row (30-inch row spacing)	1,000 linear	Apply as a 5- to 7-inch T-band treatment over an open seed furrow. Position the spray nozzle behind the planter shoe, in front of the press wheel centered over the row. Use the table above to determine the <b>Agrisel Bifenthrin Pro 2E Insecticide</b> needs per acre. Apply in a minimum of 3 gallons of finished spray per acre.
	Army cutworm Cutworm species Grubs Seed corn beetle Seed corn maggot True armyworm or Armyworm species Wireworm	0.0023 to 0.0046 lb. a.i. per 1,000 linear feet of row (30-inch row spacing)	1,000 linear feet of row (30-inch row spacing)	Mix Agrisel Bifenthrin Pro 2E Insecticide with water or fertilizer in the following manner.  1) Fill the spray tank approximately one-half full with water or liquid fertilizer.  2) Add the proper amount of Agrisel Bifenthrin Pro 2E Insecticide.  3) Add the rest of the water or fertilizer.  4) Provide sufficient agitation during mixing and application to maintain a uniform spray mixture.  Applications of Agrisel Bifenthrin Pro 2E Insecticide alone or in specified tank mixtures, in conjunction with in furrow popup fertilizers may be used. Perform a jar compatibility test with appropriate ratio of Agrisel Bifenthrin Pro 2E Insecticide and fertilizer to ensure mixture will stay in solution. Maintain constant agitation during mixing and application.

# RESTRICTIONS:

Do not apply to soil where there is greater than 30% cover of crop residue remaining.

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

Do not apply more than 0.1 lb. a.i. (6.4 fl. oz. **Agrisel Bifenthrin Pro 2E Insecticide**) per acre per season as an at plant application.

PHI: 30 days

Row spacing (inches)	40	38	36	30
Agrisel Bifenthrin Pro 2E Insecticide (pounds a.i. per acre)	0.060	0.064	0.069	0.080
Agrisel Bifenthrin Pro 2E Insecticide (formulated ounces per acre)	3.9	4.1	4.4	5.12

SWEET CORN (GRAIN AND SILAGE) and SWEET CORN GROWN FOR SEED (Foliar Use)

CROP	PEST	RATE		APPLICATION INSTRUCTIONS
		LBS. AI	FL. OZ.	
Sweet Corn (Grain And Silage) Sweet Corn Grown For Seed (Foliar Use)	Aphids Army cutworm Beet armyworm Cereal leaf beetle Chinch bug Common stalk borer Corn earworm Corn rootworm (Adults) Cucumber beetle (Adult) Cutworm species European corn borer Fall armyworm Flea beetle Grasshoppers Greenbug Japanese beetle (Adult) Sap beetle Southern armyworm Southern corn leaf Beetle Southwestern corn borer Stinkbugs Tarnished plant bug True armyworm or Armyworm species Webworms Western bean cutworm Yellowstriped armyworm Banks grass mite Carmine mite Two-spotted spider mite	0.033 to 0.1	FL. OZ. 2.1 to 6.4	Aerial Application: Apply in a minimum of 2 gallons of finished spray per acre by air. 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray.  Ground Application: Apply in a minimum of 10 gallons per acre with ground equipment. Thorough coverage is essential to achieve control.  To control ear-attacking pests: Apply Agrisel Bifenthrin Pro 2E Insecticide when silking begins and repeat as necessary to maintain control, but do not exceed maximum application rates and reapplication intervals listed elsewhere in this section.  Southwestern corn borer, European corn borer: Make 2 applications for corn borer control with the initial application at or shortly before egg hatch.  For control of other insect pests: Apply when pests first appear and repeat as necessary, but do not exceed maximum application rates and reapplication intervals listed elsewhere in this section.  Apply for Banks grass mites control when colonies first form from 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.

# RESTRICTIONS:

Do not apply more than 0.2 lb. a.i. (12.8 ounces formulated) per acre per season, including at plant plus foliar applications. Do not graze livestock in treated areas of cut treated crops for feed within 1 day of the last application.

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

Do not make aerial or ground applications to corn if heavy rainfall is imminent. Use of **Agrisel Bifenthrin Pro 2E Insecticide** on corn is prohibited in all coastal counties.

PHI: 1 day

# **COTTON**

		RA <sup>*</sup>	ΤE	
CROP	PEST	LBS. AI/A	FL. OZ./A	APPLICATION INSTRUCTIONS
Cotton	European corn borer Soybean (banded) thrips Tobacco thrips	0.02 to 0.1	1.3 to 6.4	Agrisel Bifenthrin Pro 2E Insecticide may be applied in water or refined vegetable oil (soybean/cottonseed).
	Boll weevil Bollworm Cabbage looper Cotton aphid Cotton fleahopper	0.04 to 0.1	2.6 to 6.4	<b>Aerial Application:</b> Apply in a minimum of 1 gallon per acre. 1 quart of emulsified oil may be substituted for one quart of water in the finished spray.
	Cotton leaf perforator Cutworms Fall armyworm Plant bugs Saltmarsh caterpillar Southern garden leafhopper			<b>ULV Application:</b> Apply the specified rate of <b>Agrisel Bifenthrin Pro 2E Insecticide</b> in refined vegetable oil in a minimum of 1 quart of finished spray per acre with aircraft calibrated to give adequate coverage.
	Stink bugs Tobacco budworm Whitefly Yellow striped armyworm			Ground Application: Apply in a minimum of 5 gallons per acre.  Boll weevil control: Apply Agrisel Bifenthrin
	Beet armyworm Carmine spider mite Lygus spp. (except California) Pink bollworm	0.06 to 0.1	3.8 to 6.4	Pro 2E Insecticide at an interval of 3 to 4 days until pest numbers are reduced to acceptable levels.  Mites and aphids control: Apply when pests
	Two-spotted spider mite			first appear. Repeat as necessary to maintain control. Higher rates will be required once a damaging threshold is established.

# RESTRICTIONS:

Do not apply more than 0.5 lb. a.i. (32 formulated product) per acre per season in all states except California. For CA, do not apply more than 0.3 lb. a.i. per acre per season.

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

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

PHI: 14 days

# **CUCURBITS**

CROP	PEST	RA	TE	APPLICATION INSTRUCTIONS	
CROP	PEST	LBS. AI/A	FL. OZ./A	APPLICATION INSTRUCTIONS	
apple, balsam pear, bitter melon, Chinese cucumber) Muskmelon (hybrids and/or cultivars of <i>Cucumis melo</i> , includes: true cantaloupe, cantaloupe, casaba, Crenshaw melon, golden pershaw melon.	Squash bugs Squash vine borer Stink bugs Tobacco budworm  Carmine mite Banks grass mite Lygus spp. Two-spotted spider mites Whitefly	0.04 to 0.1  0.08 to 0.1	2.6 to 6.4	Aerial Application: Apply in a minimum of 5 gallons of finished spray per acre. 1 -2 quarts of emulsified oil many be substituted for 1-2 quarts of water in the finished spray.  Ground Application: Apply in a minimum of 20 gallons per acre with ground equipment.  Thorough coverage is essential to achieve control.	
Watermelon (includes hybrids and or varieties of <i>Citrullus</i> spp.)					

# RESTRICTIONS:

Do not apply more than 0.3 lb. a.i. (19.2 ounces formulated) per acre per season. Do not make more than two applications after bloom.

Do not make applications less than 7 days apart.

PHI: 3 days

# **DRIED BEANS AND PEAS**

RATE				
CROP	PEST	LBS. AI/A	FL. OZ./A	APPLICATION INSTRUCTIONS
Dried cultivars of: Bean ( <i>Lupins</i> ) Bean( <i>Phaseolus</i> ) Field bean	Aster leafhopper Flea beetle Grasshopper Leafhoppers	0.025 to 0.1	1.6 to 6.4	Aerial Application: Apply a minimum of 2 gallons per acre. 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray.
Kidney bean Lima bean (dry) Navy bean Pinto bean Tepary bean Bean (Vigna) Adzuki bean Blackeyed pea Catjang Cowpea Crowder pea Moth bean Mung bean Rice bean Southern pea Urd bean Broad bean (dry) Chickpea Guar Lablab bean Lentil Pea (Pisum) Field pea Pigeon pea	Alfalfa caterpillar Aphids Beet armyworm Bean leaf beetle Cloverworm Corn earworm Corn rootworm Cucumber beetles Cutworms European corn borer Fall armyworm Imported cabbageworm Japanese beetle Leafminer Loopers Pea weevil Pea leaf weevil Plant bug Saltmarsh caterpillar Sap beetle (Adult) Southern armyworm Stink bugs Tarnished plant bug Thrips (Adult) Tobacco budworm Whitefly Webworms Western bean cutworm Yellowstriped armyworm Banks grass mite Carmine mite Lygus spp. Spider mite Two-spotted spider mite	0.033 to 0.1	2.1 to 6.4 5.12 to 6.4	Ground Application: Apply using a minimum of 10 gallons of finished spray per acre.  Through coverage is essential to achieve control.

# RESTRICTIONS:

Do not apply more than 0.2 lb. a.i. (12.8 ounces formulated) to peas, or 0.3 lb. a.i. (19.2 ounces formulated) to beans per acre per season.

Do not make applications less than 7 days apart.

PHI: 14 days

# **FRUITING VEGETABLES**

		RA	TE	
CROP	PEST	LBS. AI/A	FL. OZ./A	APPLICATION INSTRUCTIONS
Eggplant Pepper (Bell & Non-Bell) Groundcherry Pepino	Armyworms, including Beet armyworm Fall armyworm Southern yellowstriped armyworm Cabbage looper Colorado potato beetle Corn earworm Cucumber beetle Cutworms European corn borer Flea beetle Leafminers Loopers Pepper weevil Plant bug Stink bug Thrips Tomato hornworm Tomato pinworm Vegetable leafminer Whitefly	0.033 to 0.1	2.1 to 6.4	Aerial Application: Apply in a minimum of 2 gallons of finished spray per acre. 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray.  Ground Application: Apply in a minimum of 10 gallons per acre with ground equipment. Thorough coverage is essential to achieve control.
	Banks grass mite Broad mite Carmine mite Lygus species Pacific spider mite Two-spotted spider mite	0.08 to 0.1	5.12 to 6.4	

# RESTRICTIONS:

Do not make applications less than 7 days apart.
Do not apply more than 0.2 lb. a.i. (12.8 ounces formulated) per acre per season.
PHI: 7 days

CROP Tomato Ap	PEST	RATE		ADDI ICATION INSTRUCTIONS	
Tomato Ap		LBS. AI/A	FL. OZ./A	APPLICATION INSTRUCTIONS	
Tomatillo  Arr  Be Ca Ca Clo Co Cu Cu Dia Eu Fle Gra Loc Lyg Me Pe Pic Pla Rir Sa Se Sq Stii Tol Tal Thi	ohids myworms, including Beet armyworm Fall armyworm Southern yellowstriped armyworm ean leaf beetle abbageworm armine mite overworm orn earworm orn rootworm orn rootworm orn borer ea beetles atworms amondback moth uropean corn borer ea beetles ea hopper rasshopper panese beetle (Adult) eafhoppers opers gus species elonworm ea weevil ea leaf weevil ckleworm ant bug ndworm altmarsh caterpillar ap beetle eedpod weevil quash bugs ink bug obacco Budworm arnished plant bug nrips hitefly	0.033 to 0.08	2.1 to 5.12 5.12 to 6.4	Ground Application: Apply in water as necessary for insect control using a minimum of 10-15 gallons of finished spray per acre with ground equipment.  Thorough coverage is essential to achieve control.	

# RESTRICTIONS:

Not for use on Tomatillo in CA unless accompanied by an approved supplemental labeling. Do not make applications less than 10 days apart.

A maximum of 4 applications may be applied per season.

PHI: 1 day

# **GRAPES**

		RA <sup>-</sup>	ΓΕ	
CROP	PEST	LBS. AI/A	FL. OZ./A	APPLICATION INSTRUCTIONS
Grapes	Cutworms Eastern grape leafhopper Grape berry moth Japanese beetles (Adults) Variegated leafhopper Western grape leafhopper	0.05 to 0.1	3.2 to 6.4	Aerial Application: Apply in a minimum of 10 gallons of finished spray per acre. 1 to 2 quarts of emulsified oil may be substituted for 1 to 2 quarts of water in the finished spray.  Ground Application: Apply in a minimum of 25 gallons of finished spray per acre.
	Black vine weevil Glassy winged sharpshooter Two-spotted spider mite	0.1	6.4	Thorough coverage is essential to achieve control.  When pest pressure is moderate to severe, use higher rate within the specified rate range.

# RESTRICTIONS:

Not for use in CA unless allowed by an approved supplemental labeling.

Do not apply more than 0.1 lb. a.i. (6.4 ounces formulated product) per acre per season.

PHI: 30 days

# **HOPS**

	порз							
		RA	ŢE					
CROP	PEST	LBS. AI/A	FL. OZ./A	APPLICATION INSTRUCTIONS				
Hops	Aphids Armyworms Cutworms Leafrollers Loopers	0.06-0.1	3.8 to 6.4	Aerial Application: Application by air for late season control of two-spotted spider mite: Apply no less than 6.4 oz. (0.1 lb. a.i.) per application in a minimum of 10 gallons per acre.				
	Root weevils	0.05 to 0.1	3.2 to 6.4	Ground Application: For best results, full coverage is essential. In early season use 100-150 gallons of spray per acre. In late season use 200-250 gallons				
	Two-spotted spider mite	0.1	6.4	of spray per acre.  Root weevil control: Make a directed spray to the base of the plant. Spray up the vine 3 feet and the soil surface 1.5 to 2 feet on either side of the plant.				

# RESTRICTIONS:

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

Do not exceed 0.1 lb. a.i. (6.4 ounces formulated product) per application.

Do not exceed 0.3 lb. a.i. (19.2 ounces formulated product) per acre per season.

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

PHI: 14 days

# **LEAFY BRASSICAS and TURNIP GREENS\***

	LEAT	RA <sup>-</sup>	ГЕ	
CROP	PEST	LBS. Al/A	FL. OZ./A	APPLICATION INSTRUCTIONS
	Aphids	0.033 to 0.1	2.1 to 6.4	Aerial Application: Apply in a minimum of 2
Bok choy	Corn earworm			gallons of finished spray per acre. When
Collards	Crickets			applying by air, 1-2 quarts of emulsified oil may
Kale	Cucumber beetles			be substituted for 1-2 quarts of water in the
Mizuna	Cutworms			finished spray.
Mustard greens	Diamondback moth			
Mustard spinach	Flea beetles			<b>Ground Application:</b> Apply in a minimum of 10
Rape greens	Grasshoppers			gallons per acre.
Turnip greens*	Ground beetles			
	Imported cabbageworm			Thorough coverage is essential to achieve
	Japanese beetle (Adult)			control.
	Leafhoppers			
	Loopers			
	Saltmarsh caterpillar			
	Stink bugs			
	Thrips			
	Tobacco budworm			
	Whitefly			
	Wireworm (Adults)			
	Banks grass mite	0.08 to 0.1	5.12 to 6.4	
	Carmine mite			
	Lygus spp.			
	Pacific spider mite			
	Two-spotted spider mite			
DECEDICATIONS	1		l	ı

# RESTRICTIONS:

\*Turnip greens not approved use in California unless allowed by state specific 24(c) supplemental label. Do not apply more than 0.4 lb. a.i. (25.6 ounces formulated product) per acre per season.

Do not make applications less than 7 days apart.

PHI: 7 days

# **LEAFY PETIOLE VEGETABLES**

0000	DECT	RA	ΓΕ	A DDI IO A TIONI INICEDITATIONIO
CROP	PEST	LBS. AI/A	FL. OZ./A	APPLICATION INSTRUCTIONS
Cardoon	Aphids	0.033 to 0.1	2.1 to 6.4	Aerial Application: Apply in a minimum of 2
Celery	Armyworms			gallons per acre.
Celtuce	Corn earworm			
Chinese celery	Crickets			<b>Ground Application:</b> Apply in a minimum of 10
Florence fennel	Cucumber beetles			gallons per acre.
Rhubarb	Cutworms			
Swiss chard	Diamondback moth			Thorough coverage is essential to achieve
	Flea beetles			control.
	Ground beetles			
	Leafhoppers			
	Loopers			
	Stink bugs			
	Thrips			
	Wireworm (Adults)			
	Carmine mite	0.08 to 0.1	5.12 to 6.4	
	<i>Lygus</i> spp.			
	Pacific spider mite			
	Two-spotted spider mite			

# **RESTRICTIONS:**

Do not apply more than 0.5 lb. active ingredient (32 fl. oz. formulated) per acre per season.

Do not make applications less than 7 days apart.

Repeat applications if necessary to maintain control.

PHI: 7 days

LETTUCE, HEAD

		RATE			
CROP	PEST	LBS. Al/A	FL. OZ./A	APPLICATION INSTRUCTIONS	
Lettuce, Head	Aphids Armyworms Corn earworm Cucumber beetles Cutworms Diamondback moth Flea beetles Imported cabbageworm Leafhoppers Loopers Saltmarsh caterpillar Stink bug Tobacco budworm Whitefly Carmine mite	0.033 to 0.1		Aerial Application: Apply in water as necessary for insect control using a minimum of 5 gallons per acre by air. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray.  Ground Application: Apply in water as necessary for insect control using a minimum of 15 gallons of finished spray per acre.  Thorough coverage is essential to achieve control.	
	Lygus spp. Two-spotted spider mite				

# **RESTRICTIONS:**

Do not make applications less than 7 days apart.

A maximum of 0.5 lb. a.i. (32 ounces formulated product) may be applied per acre per season.

PHI: 7 days

# **MAYHAW\***

CROP	DECT	RATE		APPLICATION INSTRUCTIONS	
CROP	PEST	LBS. Al/A		APPLICATION INSTRUCTIONS	
Mayhaw	Plum curculio	0.08 to 0.1		Make foliar applications in at least 28 gallons finished spray per acre.	

# **RESTRICTIONS:**

Mayhaw not approved use in California unless allowed by state specific 24(c) supplemental label.

Apply no more than once every 7 days.

Do not apply more than 0.2 lb. a.i. (12.8 ounces formulated product) per acre per season.

PHI: 30 days

# **OKRA**

		RA <sup>-</sup>	ΓΕ	
CROP	PEST	LBS. AI/A	FL. OZ./A	APPLICATION INSTRUCTIONS
Okra	Aphids Armyworm Corn earworm Cucumber beetles Cutworms European corn borer Flea beetles Japanese beetle (Adults) Leafminers Loopers Stink bugs Thrips Whitefly	0.033 to 0.1		Aerial Application: Apply a minimum of 2 gallons per acre.  Ground Application: Apply using a minimum of 10 gallons of finished spray per acre.  Apply using sufficient water to obtain uniform coverage.
	Lygus spp. Broad mite Carmine mite	0.08 to 0.1	5.12 to 6.4	
	Two-spotted spider mite			

# **RESTRICTIONS:**

Do not make applications less than 7 days apart.

Do not apply more than 0.2 lb. a.i. (12.8 ounces formulated product) per acre per season.

PHI: 7 days

# **PEANUT**

		RA	TE	
CROP	PEST	LBS. AI/A	FL. OZ./A	APPLICATION INSTRUCTIONS
Peanut	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 hopper Velvetbean caterpillar Yellowstriped armyworm	0.033 to 0.1	2.1 to 6.4	Apply foliar treatments in at least 10 gallons per acre at the rate of 6.4 fl. oz. (0.1 lb. active) per acre at a minimum of 14-day intervals.
	Aphids Spider mites Thrips Whitefly	0.08 to 0.1	5.12 to 6.4	

# RESTRICTIONS:

Not for use in CA unless accompanied by an approved supplemental labeling.

Do not apply more than 0.5 lb. a.i. (32 ounces formulated product) per acre per season.

PHI: 14 days

To maintain a proper spray interval, do not make applications less than 14 days apart.

Do not feed green immature plants and peanut hay to livestock.

# **PEARS**

	PEARS							
		RA	TE					
CROP	PEST	LBS. AI/A	FL. OZ./A	APPLICATION INSTRUCTIONS				
Pears	Aphids Codling moth Cutworms Green fruitworm Leafhoppers Leafminers Leafrollers Lygus spp. Plant bugs Plum curculio San Jose scale (Crawlers)	0.04 to 0.2	2.6 to 12.8	Aerial Application: Apply the specified rate in a minimum of 10 gallons per acre.  Ground Application: Apply as a dilute (minimum of 200 gallons of finished spray per acre) or concentrate (minimum of 50 gallons of finished spray per acre) spray in sufficient water to provide thorough coverage.				
	Stink bugs Tarnished plant bugs							
	Two-spotted spider mite Yellow mite	0.06 to 0.2	3.8 to 12.8					
	European red mite	0.08 to 0.2	5.12 to 12.8	-				

# RESTRICTIONS:

Do not apply more than 0.5 lb. a.i. (32 ounces formulated product) per acre per season with no more than 0.45 lb. a.i. (28.8 ounces formulated product) per acre applied after petal-fall.

Apply as necessary to maintain control. To maintain a proper spray interval, do not make applications less than 30 days apart.

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

PHI: 14 days

# **ROOT CROPS** (except Sugar Beets\*)

		RA	TE	
CROP	PEST	LBS. AI/A	FL. OZ./A	APPLICATION INSTRUCTIONS
Burdock, edible	Aphids	0.08 to 0.1	5.12 to 6.4	Make foliar application in at least 25
Carrot	Beet armyworm			gallons finished spray per acre.
Celeriac	Celery leaf tier			
Chervil, turnip rooted	Corn earworm			
Chicory	Cross-Striped cabbageworm			
Ginseng	Cutworms			
Horseradish	Diamondback moth			
Parsley, turnip rooted	European corn borer			
Parsnip	Fall armyworm			
Radish	Fire ants			
Radish, Oriental	Flea beetles			
Rutabaga	Green cloverworm			
Salsify	Hornworms			
Salsify, black	Imported cabbageworm			
Salsify, Spanish	Loopers			
Skirret	Southern armyworm			
Turnip	Spider mites			
	Tobacco budworm			
	Velvetbean caterpillar			
	Whitefly			
	Yellowstriped armyworm			
RESTRICTIONS:				

Apply no more than once every 7 days. Do not apply more than 0.5 lb. a.i. (32 ounces formulated product) per acre per season.

\*Not for use in CA unless accompanied by an approved supplemental labeling.

Garden Beet	Aphids	0.08 to 0.1	5.12 to 6.4	Make foliar treatments in at least 25
	Fire ants			gallons finished spray per acre.
	Flea beetles			
	Lepidopterous larvae			
	Spider mites			
	Whitefly			

# RESTRICTIONS:

Apply no more than once every 7 days. Do not apply more than 0.4 lb. a.i. (25.6 ounces formulated product) per acre per season.

PHI: 1 day

# **SOYBEAN\***

		RA	ΓΕ	
CROP	PEST	LBS. AI/A	FL. OZ./A	APPLICATION INSTRUCTIONS
Soybean	Alfalfa caterpillar Aphids Aster leafhopper Bean leaf beetle Beet armyworm Cloverworm Corn earworm Corn rootworm (Adults) Cucumber beetles Cutworms European corn borer Fall armyworm Flea beetle Grasshoppers Imported cabbageworm Japanese beetle (Adults) Leafhoppers Leafminer Loopers Mexican bean beetle (Adults) Pea leaf weevil Plant bug Saltmarsh caterpillar Sap beetle Southern armyworm Stink bugs Tarnished plant bug Thrips Tobacco budworm Webworms Western bean cutworm Whitefly Yellowstriped armyworm	0.033 to 0.1		Aerial Application: Apply in at least 2 gallons per acre at a rate up to 6.4 fl. oz. (0.1 lb. active) per acre by aircraft at a minimum of 30-day intervals.  Ground Application: Apply foliar treatments in at least 10 gallons per acre at a rate up to 6.4 fl. oz. (0.1 lb. active) per acre.  Pyrethroid resistance is common for Beet armyworm and Tobacco budworm. Please consult your local or state agricultural authority to determine if resistant pest populations are in your area. If so, refer to the resistance management statement in the DIRECTIONS FOR USE section of this label.
	Lygus species Two-spotted spider mite Whitefly	0.08 to 0.1	5.12 to 6.4	

# RESTRICTIONS:

To maintain a proper spray interval, do not make applications less than 30 days apart. Do not apply more than 0.3 lb. a.i. (12.8 ounces formulated product) per acre per season. PHI: 18 days

\*Use not permitted in California.

# **SPINACH**

		RA	TE	
CROP	PEST	LBS. AI/A	FL. OZ./A	APPLICATION INSTRUCTIONS
Spinach	Armyworms Colorado potato beetle Corn earworm Cucumber beetles Cutworms European corn borer Flea beetles Leafminers Loopers Pepper weevil Tomato pinworm Thrips Whitefly	0.033 to 0.1	2.1 to 6.4	Aerial Application: Apply the specified dosage in a minimum of 5 gallons of finished spray per acre.  Ground Application: Apply the specified dosage in a minimum of 10 gallons of finished spray per acre by ground.  Whitefly control: Make foliar applications of Agrisel Bifenthrin Pro 2E Insecticide by ground or air at rates of up to 0.4 pt. (0.1 lb. a.i.) per acre at minimum 7-day intervals up to a maximum of 4 applications.
	Broad mite Banks grass mite Carmine mite Fire ants Lygus spp. Two-spotted spider mite Pacific spider mite	0.08 to 0.1	5.12 to 6.4	Fire ant control: Apply Agrisel Bifenthrin Pro 2E Insecticide EC to the soil (at planting) or as a foliar treatment by ground or air at rates of up to 0.4 pt. (0.1 lb. active) per acre at minimum 7-day intervals up to a maximum of 4 applications.

# **RESTRICTIONS:**

To maintain a proper spray interval, do not make applications less than 7 days apart.

Do not apply more than 0.4 lb. a.i. (25.6 ounces formulated product) per acre per season.

PHI: 40 days

# STRAWBERRY

STRAWBERRY					
CROP	PEST	Rate		ADDITICATION INSTRUCTIONS	
	PESI	LBS. AI/A	FL. OZ./A	APPLICATION INSTRUCTIONS	
Strawberry	Aphids Armyworms Flea beetles Heliothis spp. Leafrollers Lygus spp. Plant bugs Spittlebugs Stink bugs Strawberry clipper Strawberry sap beetle	0.04 to 0.2	2.56 to 12.8	Apply when pest populations reach damaging thresholds and repeat as necessary at 7-14 day intervals.  Aerial Application: Aerial application is prohibited in Florida. Apply specified rate in a minimum of 5 gallons per acre.  Ground Application: Apply a full cover spray in a minimum of 50 gallons of finished spray per acre.	
	Strawberry root weevil Black vine weevil	0.05 to 0.2	3.2 to 12.8		
	Spider mites	0.1 to 0.2	6.4 to 12.8		
				· · · · · · · · · · · · · · · · · · ·	

# **RESTRICTIONS:**

Do not apply more than 0.5 lb. active ingredient (32 ounces formulated product) per acre per season. No pre-harvest interval required.

**CALIFORNIA SPECIFIC REQUIREMENTS FOR STRAWBERRY HARVESTERS:** Harvesters and other personnel performing tasks with all day foliage contact in treated fields within five (5) days of application must wear a long-sleeved shirt, long pants, and shoes plus socks. Following treatment of strawberry fields at rates of **Agrisel Bifenthrin Pro 2E Insecticide** greater than 0.1 lb. a.i./Acre, harvesters must wear gloves for five (5) days following application.

# **SUCCULENT PEAS AND BEANS**

	PEST	RATE			
CROP		LBS. AI/A	FL. OZ./A	APPLICATION INSTRUCTIONS	
Peas (Pisum spp.): Dwarf Edible-pod English pea Garden pea Green pea Pigeon Snow pea	Flea beetle Grasshoppers Aster leafhopper Leafhoppers Alfalfa caterpillar Aphids	0.025 to 0.1 0.033 to 0.1	1.6 to 6.4 2.1 to 6.4	Aerial Application: Apply in a minimum of 2 gallons of finished spray per acre. 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray.  Ground Application: Apply in a minimum of 10 gallons per acre.	
Sugar snap  Beans ( <i>Phaseolus</i> spp.):	Bean leaf beetle Beet armyworm Cloverworm			Thorough coverage is essential to achieve control.	
Broadbean (succulent) Lima bean (green) Runner bean Snap bean Wax bean  Bean (Vigna spp.):	Corn earworm Corn rootworm (Adult) Cucumber beetles Cutworms European corn borer Fall armyworm Japanese beetle (Adult)			acriieve control.	
Asparagus bean Blackeyed pea Chinese longbean Cowpeas Moth bean Southern pea Yardlong bean Jackbean	Loopers Pea leaf weevil Pea weevil Plant bug Sap beetle Southern armyworm Stink bugs Tarnished plant bug Thrips				
Soybean (immature seed) Sword bean	Webworms Western bean cutworm Yellowstriped armyworm Whitefly				
DESTRICTIONS:	Banks grass mite Carmine mite <i>Lygus</i> spp. Two-spotted spider mite	0.08 to 0.1	5.12 to 6.4		

RESTRICTIONS:

Do not apply more than 0.2 lb. a.i. (12.8 ounces formulated product) per acre per season.
PHI: 3 days

# **TOBACCO**

27.27	PEST	RATE			
CROP		LBS. AI/A	FL. OZ./A	APPLICATION INSTRUCTIONS	
Tobacco	Armyworm spp. Cutworms spp. Mole crickets Stalk borers Tobacco flea beetle (Larvae) White grubs Wireworms Aphid spp. Armyworm Chinch bugs Cutworm spp. Flea beetle (Adults) Grasshoppers Green bugs Japanese beetles Stink bugs Tarnished plant bugs Thrips Whiteflies	0.0625 to 0.1  0.04 to 0.1	4 to 6.4  2.56 to 6.4	Pre-transplant Soil Applications: Apply 0.0625-0.1 lb. a.i./A in a minimum of 10 gals./A to control soil pests. Use of suitable equipment to incorporate into top 4 inches of soil is required to control below ground pests.  At-transplant Water Treatment Application: Apply 0.0625-0.1 lb. a.i./A in a water treatment application volume of 10-200 gals./A.  Foliar Applications: Apply 0.04-0.10 lb. a.i./A per foliar application up to, and including, layby in a minimum of 10 gals./A.  May be tank mixed with Command, Spartan and other herbicides approved for tobacco use.	
	Lygus spp. Spider mites	0.1	6.4	-	

# RESTRICTIONS:

Do not make more than 2 foliar applications per season. Do not apply more than 0.2 lb. a.i. (12.8 ounces formulated product) per acre per season.

Do not apply later than layby.

# TREE NUT CROPS

TREE NOT CROPS						
CROP	PEST		ate	APPLICATION INSTRUCTIONS		
CKOF		LBS. Al/A	FL. OZ./A	AFFEIGATION INSTRUCTIONS		
Almond	Black pecan aphid	0.05 to 0.2	3.2 to 12.8	<b>Aerial Application:</b> Apply specified rate in		
Beech nut	Codling moth			a minimum of 10 gallons per acre.		
Brazil nut	Filbert worm					
Butternut	Hickory shuckworm			Ground Application: Apply as a dilute		
Cashew	Leaffooted bugs			(minimum of 200 gallons of finished spray		
Chestnut	Navel orangeworm			per acre) or concentrate (minimum of 50		
Chinquapin	Oblique banded leafroller			gallons of finished spray per acre) spray in		
Filbert (hazelnut)	Peach twig borer			sufficient water to provide thorough		
Hickory nut	Pecan leaf casebearer			coverage.		
Macadamia nut	Pecan nut casebearer					
(bush nut)	Pecan phylloxera					
Pecan	Plant bugs					
Pistachio	Stink bugs					
Walnut (Black	Walnut aphid					
and English)	Yellow pecan aphid					
	European red mite	0.08 to 0.2	5.1 to 12.8			
	Spider mite					
	Fire ants	0.1 to 0.2	6.4 to 12.8			
	Walnut husk fly					

# **RESTRICTIONS:**

Do not exceed 0.2 lb. a.i. (12.8 ounces formulated product) per acre per application.

Apply as needed to maintain control, but do not apply at intervals sooner than 15 days.

Do not apply more than 0.5 lb. a.i. (32 ounces formulated product) per acre per season.

PHI For pecans: 21 days

PHI For all other registered tree nut crops: 7 days

# **TUBEROUS AND CORM VEGETABLES**

		RA	]	
CROP	PEST	LBS. AI/A	FL. OZ./A	APPLICATION INSTRUCTIONS
Arracacha Arrowroot Chinese artichoke Jerusalem artichoke Edible, canna Cassava (bitter and sweet)	Corn wireworm Tobacco wireworm	0.15 to 0.30 (at-plant)	9.6 to 19.2 (at-plant)	Apply Agrisel Bifenthrin Pro 2E Insecticide as an in-furrow planting time treatment for the control of wireworms, rootworms and white grubs.
Chayote (root) Chufa Dasheen (taro) Ginger Leren	Japanese beetle grubs June beetles Southern potato wireworm	0.05 to 0.15 (lay-by)	3.2 to 9.6 (lay-by)	Apply Agrisel Bifenthrin Pro 2E Insecticide at the rate of 0.3 lb. active per acre as an in-furrow spray or T-band spray at planning time.
Potato Sweet potato Tanier Turmeric Yam bean	Banded cucumber beetle Black flea beetle Cucumber beetle Rootworms	0.033 to 0.1 (foliar)	2.1 to 6.4 (foliar)	Apply Agrisel Bifenthrin Pro 2E Insecticide as a lay-by treatment for the control of wireworms, rootworms and white grubs.
True yam	Sugarcane beetle Sweet potato flea beetle Sweet potato weevil White-fringed beetle			Apply Agrisel Bifenthrin Pro 2E Insecticide to the drill area and cover with soil utilizing cultivation equipment set to throw soil to the drill area.
				Apply Agrisel Bifenthrin Pro 2E Insecticide as a banded spray over the row at a rate of 0.05-0.15 lb. active per acre (3.2 to 9.6 ounces formulated) in 10 gallons per acre of spray.
				Apply Agrisel Bifenthrin Pro 2E Insecticide as a foliar spray for the control of the adult life stages of flea beetles, click beetles (wireworms), cucumber beetles (rootworms), white fringed beetles and May/June beetles (white grubs).
DESTRUCTIONS				Apply Agrisel Bifenthrin Pro 2E Insecticide at the rate of 0.033-0.1 lb. active per acre (2.1-6.4 ounces formulated product) in 10 gallons of spray by ground and 3 gallons of spray by air.

# RESTRICTIONS:

Do not make more than 2 foliar applications per season no sooner than 21 days apart.

Do not apply more than 0.5 lb. a.i. (32 ounces formulated product) per acre per season, including soil application. PHI: 21 days

# TURF (GOLF COURSES AND SOD FARMS) AND GRASS AREAS (INCLUDING GOLF COURSES, SOD FARMS, HOME LAWNS, LAWN AREAS AROUND PARKS, INSTITUTIONAL, PUBLIC, COMMERCIAL AND INDUSTRIAL BUILDINGS, RECREATIONAL AND ATHLETIC FIELDS)\*

Apply as a broadcast treatment. Use higher volumes up to 10.0 gallons per carrier per 1,000 square feet to get uniform coverage when treating dense grass foliage. For low water volume usage, less than 2.0 gallons per 1,000 square feet, addition of a non-ionic or silicone based surfactant (0.25% by volume) is recommended. Irrigation to treated area within a few hours following application can improve efficacy to sub-surface pests such as, but not limited to, Mole crickets.

The application rates listed in the following table will provide excellent control of the respective pests under typical conditions. However, at the discretion of the applicator, **Agrisel Bifenthrin Pro 2E Insecticide** may be applied at up to 0.32 fluid ounce per 1,000 square feet to control each of the pests listed in this table. Use higher application rates within the specified rate range when maximum residual control is desired or where heavy pest populations occur.

DECT	RATE					
PEST	FL. OZ./A FL. OZ./1,000 SQ. FT.		LB. AI/A			
Armyworms <sup>1</sup>	2.2 to 3.5	0.05 to 0.08	0.03 to 0.05			
Cutworms <sup>1</sup>						
Sod webworm <sup>1</sup>						
Annual bluegrass weevil ( <i>Hyperodes</i> ) (Adults) <sup>2</sup>	3.5 to 7.0	0.08 to 0.16	0.05 to 0.11			
Banks grass mite <sup>6</sup>						
Billbugs (Adults) <sup>3</sup>						
Black turfgrass ataenius (Adults) <sup>4</sup>						
Crickets						
Earwigs						
Grasshoppers						
Leafhoppers						
Mealybugs						
Mites <sup>6</sup>						
Pillbugs						
Sowbugs						
Chinch bugs <sup>5</sup>	7.0 to 14.0	0.16 to 0.32	0.11 to 0.21			
Japanese beetle (Adults)						
Mole cricket (Adults) <sup>7</sup>						
Mole cricket (Nymph) <sup>8</sup>						

# **DO NOT USE THIS PRODUCT ON GOLF COURSES OR SOD FARMS IN NASSAU COUNTY OR SUFFOLK COUNTY, NEW YORK.** In New York State, this product may NOT be applied to any grass or turf area within 100 feet of a water body (lake, pond, river, stream, wetland, or drainage ditch). In New York State, do make a single repeat application of this product if there are signs of renewed insect activity, but not sooner than 2 weeks after the first application.

# **Spray Drift Precautions (For turf uses)**

Do not apply when wind conditions favor downwind drift to nearby water bodies.

Do not apply when wind velocity exceeds 10 miles per hour.

Avoid application when wind gusts approach 10 mph.

Apply using nozzles that provide the largest droplet size compatible with adequate coverage.

### Comments

<sup>1</sup>Armyworms, Cutworms and Sod webworms: To ensure optimum control, delay watering (irrigation) or mowing for 24 hours after application. If the grass area is being maintained at a mowing height of greater than 1 inch, then higher application rates (up to 0.32 fluid ounce per 1,000 square feet) may be required during periods of high pest pressure.

<sup>2</sup>Annual bluegrass weevil (*Hyperodes*) adults: To control adult Weevils, apply product as they leave their overwintering sites and move into grass areas. This movement generally begins when Forsythia is in full bloom and concludes when Flowering dogwood (*Comus Florida*) is in full bloom. Consult your State Cooperative Extension Service for more specific information regarding application timing.

<sup>3</sup>Billbug adults: Apply when adult Billbugs are first observed during April and May. Degree day models have been developed to optimize application timing. Consult your State Cooperative Extension Service for information specific to your region. In temperate regions, spring applications targeting Billbug adults will also provide control of over-wintered Chinch bugs.

<sup>4</sup>Black turfgrass ataenius adults: Make applications during May and July to control the first and second generation of Black turfgrass ataenius adults, respectively. The May application should be timed to coincide with the full bloom stage of Vanhoutte spiraea (*Spiraea vanhouttei*) and Horse chestnut (*Aesculus hippocastanum*). Time the July application to coincide with the blooming of Rose of Sharon (*Hibiscus syriacus*).

**5Chinch bugs:** Chinch bugs infest the base of grass plants and are often found in the thatch layer. Irrigation of the grass area before treatment will optimize the penetration of the insecticide to the area where the Chinch bugs are located. Use higher volume applications if the thatch layer is excessive or if a relatively long mowing height is being maintained. Chinch bugs can be one of the most difficult pests to control in grasses and the higher application rates (up to 0.32 fluid ounce per 1,000 square feet) may be required to control populations that contain both nymphs and adults during the middle of the summer.

<sup>6</sup>Mites: To ensure optimal control of Eriophyid mites, apply in combination with the labeled application rate of a surfactant. A second application, 5 to 7 days after the first, may be necessary to achieve acceptable control.

<sup>7</sup>Mole cricket adults: Achieving acceptable control of adult Mole crickets is difficult because preferred grass areas are subject to continuous invasion during the early spring by this extremely active stage. Make applications as late in the day as possible and should be watered in with up to 0.5 inches of water immediately after treatment. If the soil is not moist, then it is important to irrigate before application to bring the Mole crickets closer to the soil surface where contact with the insecticide will be maximized. Treat grass areas that receive pressure from adult Mole crickets at peak egg hatch to ensure optimum control of subsequent nymph populations (see below).

populations (see below).

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

\*This use is not permitted in California unless allowed by state specific 24(c) supplemental labeling.

# STORAGE AND DISPOSAL

# **PESTICIDE STORAGE**

Keep out of reach of children and animals. Store in original container only. Store in a cool, dry place and avoid excess heat. Carefully open containers. After partial use, replace lids and close tightly. Do not put concentrate or dilute material into food or drink containers. Do not contaminate other pesticides, fertilizers, water, food, or feed by storage or disposal. Do not freeze or store below 40°F. If crystals are observed, warm material to above 60°F by placing container in warm location. Shake or roll container periodically to redissolve solids.

#### **SPILLS**

In case of spill, avoid contact, isolate area and keep out animals and unprotected persons. Confine spills.

**To confine spill:** If liquid, dike surrounding area or absorb with sand, cat litter or commercial clay. If dry material, cover to prevent dispersal. Place damaged package and used absorbent material in a holding container. Identify contents.

# PESTICIDE DISPOSAL

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

# **CONTAINER HANDLING:**

Nonrefillable container ≤5 gallons. Nonrefillable container. Do not reuse or refill this container. Clean container 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. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Do not cut or weld metal containers.

Nonrefillable container ≥ 5 gallons. Do not reuse or refill this container. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use of disposal. Repeat this procedure two more times. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Do not cut or weld metal containers.

**Refillable container.** Refill this container with pesticides only. Do not reuse this container for any other purpose. Cleaning the container before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities.

# WARRANTY DISCLAIMER

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