

### OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

WASHINGTON, D.C. 20460

October 31, 2025

Aceto Life Sciences, L.L.C, d/b/a Actylis c/o Michele Lussos Agent Ag-Pest Consulting 12644 Chapel Road Clifton, VA 20124

Subject: Notification per PRN 98-10 – Adding "Restricted Use Pesticide" under Directions for Use

and correcting the EPA Reg. No.

Product Name: Actylis Lambda-Cy Insecticide

EPA Registration Number: 2749-661 Application Date: 10/02/2025

Case Number: 672394

#### Dear Michele Lussos:

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

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

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

If you have any questions, please contact Laura Rademacher at Rademacher.Laura@epa.gov.

Sincerely,

Jacquelyn Herrick, Product Manager 03
Invertebrate & Vertebrate Branch 1
Registration Division (7505T)
Office of Pesticide Programs

## RESTRICTED USE PESTICIDE

### **Due to Toxicity to Fish and Aquatic Organisms**

For retail sale to and use only to Certified Applicators, or persons under their direct supervision, and only for those uses covered by the Certified Applicator's certification.

> LAMBDA-CYHALOTHRIN **GROUP**

3A

INSECTICIDE

#### NOTIFICATION

2749-661

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

10/31/2025

# ACTYLIS LAMBDA-CY **INSECTICIDE**

For the Control of a Variety of Insect Pests on Selected Crops Contains the same active ingredient as Karate® Insecticide. For outdoor use only.

Ac	tiv	e	Ingre	di	en	t:	
-	- 1	•	- 1	-	. 1		

Lambda-cyhalothrin..... Other Ingredients: 88.6% Total 100.0%

Contains petroleum distillates.

Contains 1 lb. of active ingredient per gallon.

### KEEP OUT OF REACH OF CHILDREN

### WARNING/AVISO

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

[See inside booklet for additional Precautionary Statement, [First Aid], and Directions for Use]

	FIRST AID					
If swallowed	Call a poison control center or doctor immediately for treatment advice.					
	Do not give any liquid to the person.					
	Do not induce vomiting unless told to do so by the poison control center or doctor.					
	Do not give anything by mouth to an unconscious person.					
If in eyes	Hold eye open and rinse slowly and gently with water 15-20 minutes.					
	Remove contact lenses, if present, after the first 5 minutes, then continuing rinsing					
	eye.					
	Call a poison control center or doctor for treatment advice.					
If on skin or clothing	Take off contaminated clothing.					
	Rinse skin immediately with plenty of water for 15-20 minutes.					
	Call a poison control center or doctor for treatment advice.					
If inhaled	Move person to fresh air.					
	• If person is not breathing, call 911 or an ambulance, then give artificial respiration,					
	preferably by mouth-to-mouth if possible.					
	Call a poison control center or doctor for further treatment advice.					
	r label with you when calling a poison control center or physician or going for treatment. FOR					
	INVOLVING THIS PRODUCT, CALL CHEMTREC® TOLL FREE 1-800-424-9300 or 1-703-527-					
3887 (24 Hours per Day, 7 D	avs per Week).					

EPA Reg. No.	2749-661	EPA Est. No.:
Net Contents:		

Note to Physician – Contains petroleum distillate – vomiting may cause aspiration pneumonia.

Manufactured [By][For]: Aceto Life Sciences, LLC, d/b/a Actylis 4 Tri Harbor Court

#### PRECAUTIONARY STATEMENTS

#### Hazards to Humans and Domestic Animals

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

### **Personal Protective Equipment (PPE)**

### Mixers, loaders and applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of barrier laminate or viton ≥14 mils
- Shoes plus socks
- Protective eyewear

**In addition,** if the applicator is making foliar broadcast treatments using a mechanically pressurized handgun to conifers and deciduous trees in nurseries, wear a minimum of a NIOSH-approved elastomeric half mask respirator with organic vapor (OV) cartridges and combination R, or P filters; OR a NIOSH-approved gas mask with OV canisters; OR a NIOSH-approved powered air purifying respirator with OV cartridges and combination HE filters.

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, use detergent and hot water. Keep and wash PPE separately from other laundry.

### **Engineering Controls Statement**

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

### **Environmental Hazards**

This pesticide is extremely toxic to fish and aquatic organisms and toxic to wildlife. Do not apply when weather conditions favor drift from treated areas. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas.

To protect the environment, do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters or surface waters. Applying this product in calm weather when rain is not predicted for the next 24 hours will help to ensure that wind and rain does not blow or wash pesticide off the treatment area. Rinsing application equipment over the treated area will help avoid runoff to water bodies or drainage systems.

**Non-Target Organism Advisory:** This product is highly toxic to bees and other pollinating insects exposed to direct treatment or to residues in/on blooming crops or weeds. Protect pollinating insects by following label directions intended to minimize drift and reduce pesticide risk to these organisms. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area.

### **Physical and Chemical Hazards**

Combustible liquid. Do not use or store near heat or open flame. Do not use this product in or on electrical

#### 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.

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

#### **USE RESTRICTIONS**

- Do not apply as a foliar broadcast application using a mechanically pressurized handgun on orchards and vineyards.
- Do not apply as a soil, drench, or ground-directed application using a mechanically pressurized handgun on orchards and vineyards.
- Do not apply as foliar broadcast application using a mechanically pressurized handgun on: (Brassica (head and stem), Cucurbit Vegetables, Fruiting Vegetables, Garlic, Legume Vegetables, Lettuce (head and leaf), Onion (dry bulb), Tobacco, Tuberous and Corm Vegetables).
- Removable chemical extraction probes (also known as "stingers") used in suction/extraction systems must be rinsed within the pesticide container prior to removal.
- See the "SPECIFIC USE DIRECTIONS-AGRICULTURAL USES" and "NON-AGRICULTURAL USES" sections of this label for additional crop/use site restrictions.

#### 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 24 hours with the following exceptions:

• For hand or mechanically assisted detasseling of corn (field, pop, sweet) grown for seed and hand harvesting of sweet corn grown for grain, DO NOT enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 48 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:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of barrier laminate or viton >14 mils
- Shoes plus socks

### **Non-Agricultural Use Requirements:**

The requirements in this box apply to uses of this product that are not within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries or greenhouses.

DO NOT enter or allow others to enter until sprays have dried.

# FAILURE TO FOLLOW THE DIRECTIOINS FOR USE AND PRECAUTIONS ON THIS LABEL MAY RESULT IN POOR INSECT CONTROL, CROP INJURY, OR ILLEGAL RESIDUES.

#### WEED RESISTANCE MANAGEMENT

For resistance management, Actylis Lambda-Cy contains a Group 3A insecticide, lambda-cyhalothrin. Any insect population may contain individuals naturally resistant to Actylis Lambda-Cy and other Group 3A insecticides. The

resistant individuals may dominate the insect population if this group of insecticides are used repeatedly in the same fields. Appropriate resistance-management strategies should be followed.

To delay insecticide resistance, take the following steps:

- Rotate the use of Actylis Lambda-Cy or other Group 3A insecticides within a growing season, or among growing seasons, with different groups that control the same pests.
- Use tank mixtures with insecticides from a different group that are equally effective on the target pest when such use is permitted. Do not rely on the same mixture repeatedly for the same pest population. Consider any known cross-resistance issues (for the targeted pests) between the individual components of a mixture. In addition, consider the following recommendations provided by the Insecticide Resistance Action Committee (IRAC):
  - o Individual insecticides selected for use in mixtures should be highly effective and be applied at the rates at which they are individually registered for use against the target species.
  - o Mixtures with components having the same IRAC mode of action classification are not recommended for insect resistance management.
  - When using mixtures, consider any known cross-resistance issues between the individual components for the targeted pest(s).
  - o Mixtures become less effective if resistance is already developing to one or both active ingredients, but they may still provide pest management benefits.
  - The insect resistance management benefits of an insecticide mixture are greatest if the two components have similar periods of residual insecticidal activity. Mixtures of insecticides with unequal periods of residual insecticide activity may offer an insect resistance management benefit only for the period where both insecticides are active.
- Adopt an integrated pest management program for insecticide use that includes scouting, uses historical
  information related to pesticide use, crop rotation, record keeping, and which considers cultural, biological
  and other chemical control practices.
- Monitor after application for unexpected target pest survival. If the level of survival suggests the presence of resistance, consult with your local university specialist or certified pest control advisor.
- Contact your local extension specialist, certified crop advisors, and/or Aceto Life Sciences, LLC representative for any additional pesticide resistance management and/or integrated pest management recommendations for the specific site and pest problems in your area.
- For further information or to report suspected resistance, contact your Aceto Life Sciences, LLC representative.

### **BUFFER ZONES**

### **Vegetative Filter Strips**

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

Only apply products containing lambda-cyhalothrin onto fields where a maintained vegetative filter strip of at **least 25 feet** exists between the field edge and where a down gradient aquatic habitat exists. This minimum required width of 25 feet may be reduced or removed under the following conditions:

- For Western irrigated agriculture, a maintained vegetative filter strip of at least 10 feet wide is required. Western irrigated agriculture is defined as irrigated farmland in the following states: WA, OR, CA, ID, NV, UT, AZ, MT, WY, CO, NM, and TX (west of I-35).
  - For Western irrigated agriculture, if a sediment control basin is present, a vegetative filter strip is not required.
- In all other areas, a vegetative filter strip with a minimum width of 25 feet is required, unless the following conditions are met. The vegetative filter strip requirement may be reduced from 25 feet to 15 feet if at least one of the following applies:
  - o The area of application is considered prime farmland (as defined in 7 CFR § 657.5).
  - Oconservation tillage is being implemented on the area of application. Conservation tillage is defined as any system that leaves at least 30% of the soil surface covered by residue after planting. Conservation tillage practices can include mulch-till, no-till, or strip-till.
  - o A functional terrace system is maintained on the area of application.
  - o Water and sediment control basins for the area of application are functional and maintained.
  - $\circ$  The area of application is less than or equal to 10 acres.

Flooded rice fields are not required to have a vegetative filter strip. However, non-flooded rice (i.e., row rice) are subject to the vegetative filter strip requirements described above.

For further guidance on vegetated filter strips, refer to the following publication for information on constructing and maintaining effective buffers: Conservation Buffers to Reduce Pesticide Losses. Natural Resources Conservation Services.

https://www.regulations.gov/document?D=EPA-HQ-OPP-2008-0331-0175

### **Vegetative Buffer Strip in the State of New York**

In the state of New York, a 25 ft. vegetated, non-cropped buffer strip untraversed by drainage tiles must be maintained between a treated field and a coastal salt marsh or stream that drains into a coastal salt marsh, for both aerial and ground application. For aerial applications, the 25 ft. vegetated non-cropped buffer strip for runoff protection would be part of the larger 150 ft. buffer strip (or 450 ft. buffer strip for ULV application) required for spray drift.

### **Buffer Zones to Aquatic Habitats**

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

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

#### Buffer Zone for Ultra Low Volume (ULV) Aerial Application

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

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

Do not apply within 150 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, streams, marshes, natural ponds, estuaries, and commercial fish ponds).

#### SPRAY DRIFT MANAGEMENT

### **Mandatory Spray Drift Management**

#### **Aerial Applications:**

- Do not release spray at a height greater than 10 feet above the vegetative canopy, unless a greater application height is necessary for pilot safety.
- Applicators are required to select nozzle and pressure that deliver medium or coarser droplets (ASABE S641).
- Do not apply when wind speeds exceed 15 mph at the application site. If the wind speed is greater than 10 mph, the boom length must be 65% or less of the wingspan for fixed wing aircraft and 75% or less of the rotor diameter for helicopters. Otherwise, the boom length must be 75% or less of the wingspan for fixed-wing aircraft and 90% or less of the rotor diameter for helicopters.
- If the windspeed is 10 miles per hour or less, applicators must use ½ swath displacement upwind at the downwind edge of the field. When the windspeed is between 11-15 miles per hour, applicators must use ¾ swath displacement upwind at the downwind edge of the field.
- Do not apply during temperature inversions.

### Airblast Applications:

- Sprays must be directed into the canopy.
- Do not apply when wind speeds exceed 15 mph at the application site.
- User must turn off outward pointing nozzles at row ends and when spraying outer row.
- Do not apply during temperature inversions.

#### **Ground Boom Applications:**

- User must only apply with the release height recommended by the manufacturer, but no more than 4 feet above the ground or crop canopy.
- Applicators are required to select nozzle and pressure that deliver a medium or coarser droplet size (ASABE S572).
- Do not apply when wind speeds exceed 15 mph at the application site.
- Do not apply during temperature inversions.

### **Boomless Ground Applications:**

• Applicators are required to select nozzle and pressure that deliver a medium or coarser droplet size (ASABE

S572).

- Do not apply when wind speeds exceed 15 miles per hour at the application site.
- Do not apply during temperature inversions.

#### **Spray Drift Advisories**

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT. BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

#### **Importance Of Droplet Size**

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

#### **Controlling Droplet Size – Ground Boom**

- Volume Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- Pressure Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- Spray Nozzle Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

### **Controlling Droplet Size – Aircraft**

- Adjust Nozzles Follow nozzle manufacturers' recommendations for setting up nozzles.
- Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.

### **Boom Height – Ground Boom**

For ground equipment, the boom should remain level with the crop and have minimal bounce.

#### **Release Height - Aircraft**

Higher release heights increase the potential for spray drift.

#### **Shielded Sprayers**

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

### **Handheld Technology Applications**

Take precautions to minimize spray drift.

### **Temperature And Humidity**

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

#### **Temperature Inversions**

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

#### Wind

Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS. Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

#### **CHEMIGATION**

#### **Sprinkler Irrigation Application**

Apply Actylis Lambda-Cy at rates and timing described elsewhere in this label. As local recommendations differ, consult your local State Extension Service or other local experts for recommendations on adjuvant or diluent types

(see TANK MIX APPLICATION) rates and mixing instructions. These recommendations should be proven, through university and extension field trials, to be effective with Actylis Lambda-Cy applied by chemigation.

Check the irrigation system to insure uniform application of water to all areas. Thorough coverage of foliage is required for good control. Good agitation in the pesticide supply tank should be maintained prior to and during the entire application period.

Apply by injecting the specified rate of Actylis Lambda-Cy into the irrigation system using a metering device that will introduce a constant flow and by distributing the product to the target area in 0.1-0.2 acre-inch of water. In general, use the least amount of water required for proper distribution and coverage. It is recommended that the product be injected into the main irrigation line ahead of a right angle turn in the line to insure adequate dispersion or mixing in the irrigation water. Once the application is completed, flush the entire irrigation and injection system with clean water before stopping the system.

In addition to the above recommendations, if application is being made during a normal irrigation set of a stationary sprinkler, the specified rate of Actylis Lambda-Cy for the area covered should be injected into the system only during the end of the irrigation set for sufficient time to provide adequate coverage and product distribution.

It is not recommended that Actylis Lambda-Cy be applied through an irrigation system connected to a public water system. Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year

### **Use Precautions - Sprinkler Irrigation Application**

- A. 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 system(s). Do not apply this product through any other type of irrigation system.
- B. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from nonuniform distribution of treated water.
- C. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.
- D. Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.
- E. 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.
- F. 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.
- G. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- H. 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.
- I. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- J. 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.
- K. 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.

- L. Any alternatives to the above required safety devices must conform to the list of EPA-approved alternative devices.
- M. Do not apply when wind speed favors drift beyond the area intended for treatment or non-uniform distribution of treated water.
- N. Do not apply through chemigation systems connected to public water systems.

#### PRODUCT INFORMATION

Initial and residual control is contingent upon thorough crop coverage. Apply with ground or air equipment using sufficient water to obtain full coverage of foliage. Apply in a minimum of 2 gallons per acre by air or 10 gallons per acre by ground unless otherwise specified in this label. When foliage is dense or pest pressure is high (heavier insect or egg pressure, larger larval stages), use of higher application volumes and/or higher use rates may improve initial and residual control.

For cutworm control, Actylis Lambda-Cy may be applied before, during or after planting. For soil incorporated applications, use higher rates for improved control.

#### **Tank Mix Applications**

Actylis Lambda-Cy may be tank mixed with other currently registered pesticides unless expressly prohibited by the product label. Adjuvants such as spreader stickers, wetting agents, and penetrates may also be added. Use a small volume mixing test with the other products to confirm compatibility. If other chemicals are added to the applicator tank, Actylis Lambda-Cy should be added last. Fill tank to desired volume and continue to agitate while making applications. If mixed with EC formulations, use within 24 hours. It is the 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.

#### POLLINATOR PROTECTION

#### **Pollinator Best Management Practices**

Following best management practices can help reduce risk to terrestrial pollinators. Examples of best management practices include applying pesticides in the evening and at night when pollinators are not foraging and checking to confirm hive locations before spraying. For additional resources on pollinator best management practices, visit <a href="https://www.epa.gov/pollinator-protection/find-best-management-practices-protect-pollinators">https://www.epa.gov/pollinator-protection/find-best-management-practices-protect-pollinators</a>.

### **Managed Pollinator Protection Plans**

Managed pollinator protection plans are developed by states/tribes to promote communication between growers, landowners, farmers, beekeepers, pesticide users, and other pest management professionals to reduce exposure of bees to pesticides. If available, visit state plans for additional information on how to protect pollinators.

#### **How to Report Bee Kills**

It is recommended that users contact both the state lead agency and the U.S. Environmental Protection Agency to report bee kills due to pesticide application. Bee kills can be reported to EPA at <a href="mailto:beekill@epa.gov">beekill@epa.gov</a>. To contact your state lead agency, see the current listing of state pesticide regulatory agencies at the National Pesticide Information Center's website: <a href="http://npic.orst.edu/reg/state\_agencies.html">http://npic.orst.edu/reg/state\_agencies.html</a>.

#### SPECIFIC USE DIRECTIONS – AGRICULTURAL USES

		Rate	e	
Crop	Target Pests	lb. a.i./A	fl. oz./A	Remarks

ALAFAFA	Alfalfa Caterpillar	0.015 - 0.025	1.92 - 3.20	Apply only to fields planted to pure stands of
AND	Army cutworm			alfalfa.
ALFALFA	Cutworm spp.			Apply as required by scouting. Base timing and
GROWN	Green Cloverworm Leafhopper species			frequency of applications upon insect populations
FOR SEED	Looper spp.			reaching locally determined economic thresholds.
	Threecornered Alfalfa			Apply with ground or air equipment using
	Hopper			sufficient water to obtain full coverage of foliage.
	Velvetbean Caterpillar			Apply in a minimum of 2 gallons per acre by air
	Webworm spp.	0.02.0.02	2.56. 2.04	or 10 gallons per acre by ground. When foliage is
	Alfalfa Seed Chalcid (Adult)	0.02 - 0.03	2.56 - 3.84	dense and/or pest populations are high 5-10
	Alfalfa Weevil			gallons per acre by air or 20 gallons per acre by
	Armyworm			ground and higher use rates are recommended.
	Bean Leaf Beetle			Use higher labeled rates for increased residual
	(Adult)			control.
	Blister Beetle spp.			Avoid application when bees are actively
	Blue Alfalfa Aphid Clover Leaf Weevil spp.			foraging by applying during the early morning or
	Clover Lear weevir spp.  Clover Root Borer			during the evening hours. Be aware of bee hazard
	(Adult)			resulting from a cool evening and/or morning
	Clover Root Curculio			dew. It may be advisable to remove bee shelters
	spp. (Adult)			during and for 2-3 days following application.
	Clover Stem Borer			Avoid direct application to bee shelters.
	(Adult) Corn Earworm			
	Compea Aphid			<sup>1</sup> Use higher labeled rates for large larvae.
	Cowpea Curculio (Adult)			<ul> <li>Suppression only.</li> <li>See resistance statement under PRODUCT</li> </ul>
	Cowpea Weevil (Adult)			INFORMATION.
	Cucumber Beetle Spp.			<sup>4</sup> Does not include Western Flower Thrips.
	(Adult)			2 see not metalled to describe the ramps
	Egyptian Alfalfa Weevil Fall Armyworm <sup>1</sup>			
	Grape Colaspis (Adult)			
	Grasshopper spp.			
	Green June Beetle			
	(Adult)			
	Green Peach Aphid <sup>3</sup> Japanese Beetle (Adult)			
	Meadow Spittlebug			
	Mexican Bean Beetle			
	Pea Aphid			
	Pea Weevil (Adult)			
	Plant Bug spp. Including			
	Lygus spp. <sup>3</sup> Spotted Alfalfa Aphid			
	Stink Bug spp.			
	Sweet Clover Weevil			
	(Adult)			
	Thrips spp. <sup>4</sup>			
	Western Yellow-striped			
	Armyworm Whitefringed Beetle			
	spp. (Adult)			
	Yellow-striped			
	Armyworm			_
	Beet Armyworm <sup>1, 3</sup>	0.03	3.84	
	Blotch Leafminer <sup>3</sup> Spider Mites <sup>1</sup>			
	spider wittes			
<b>Restrictions:</b>				

- Do not apply more than 0.03 lb. a.i. (0.24 pt. or 3.84 fl. oz. of product)/A per cutting.
  Do not apply more than 0.12 lb. a.i. (0.96 pt. or 15.36 fl. oz. of product)/A per season.

• Do not apply within 1 day of harvest for forage or within 7 days of harvest for hay.

		Rate		
Crop	Target Pests	lb. a.i./A	fl. oz./A	Remarks
CANOLA	Cutworm spp. Armyworm spp. Diamondback Moth Flea Beetle Cabbage Seedpod Weevil Lygus Bug Grasshoppers Cabbage Aphid	0.015 -0.03	3.84	Apply as required by scouting, usually at intervals of 5 or more days. Base timing and frequency of applications upon insect populations reaching locally determined economic threshold.  Apply with ground or air equipment using sufficient water to obtain full coverage of foliage. When applying by air, apply a minimum of 2 gals. of water/A.

#### **Restrictions:**

- Do not apply within 7 days of harvest.
- Do not apply more than 0.09 lb. a.i. (0.72 pt. or 11.52 fl. oz. of product)/A per year.

		Ra	te	
Crop	Target Pests	lb. a.i.	fl. oz.	Remarks
CEREAL GRAINS: Corn (At- Plant): Field Corn Popcorn Seed Corn Sweet Corn	Corn Rootworm Larvae (Western, Northern, Southern, Mexican) Cutworm spp. Seed corn Maggot Seed corn Beetle Lesser Cornstalk Borer White Grub spp. Wireworm spp. Red Imported Fire Ant <sup>1</sup>	0.001779 lb. ai per 1,000 ft. of row <sup>2</sup>	0.235 fl. oz. per 1,000 ft. of row <sup>2</sup>	Banded Applications: Apply at planting as a 5-7 inch T-band sprayed across the open seed furrow between the furrow openers and the press wheels or as a band application behind the press wheel.  In-Furrow Applications: Apply into the seed furrow through spray nozzles or microtubes behind the planter furrow openers and in front of the press wheel.  Apply a minimum of 3 gals. of finished spray/A. <sup>1</sup> Suppression only.

#### **Restrictions:**

- Do not harvest or graze livestock or cut treated crops for feed within 21 days of at-plant application.
- Do not apply more than 0.032 lb. a.i. (0.26 pt. or 4.10 fl. oz. of product)/A per crop at-plant.
- For field corn, popcorn, and seed corn, do not apply more than 0.12 lb. a.i. (0.96 pt. or 15.36 fl. oz. of product/A per crop from atplant and foliar applications.
- For sweet corn, do not apply more than 0.48 lb. a.i. (3.84 pts. or 61.44 fl. oz. of product)/A per crop from at-plant and foliar applications.

<sup>2</sup> Lbs. a.i. and fl. oz./A of Lambda-Cyhalothrin applied at 0.235 fl. oz./1000 ft. of row for various row spacings:						
Row Spacing	40"	38"	36"	34"	32"	30"
Linear Ft./A	13,068	13,756	14,520	15,374	16,335	17,424
Lbs. a.i./A	0.024	0.025	0.027	0.028	0.030	0.032
FI. oz./A	3.06	3.24	3.42	3.59	3.84	4.11

		Rate		
Crop	Target Pests	lb. a.i./A	fl. oz./A	Remarks
			_	

CEREAL GRAINS: Corn (Foliar): Field Corn Popcorn Seed Corn	Cutworm spp. Western Bean Cutworm¹ Corn Earworm¹ Green Cloverworm Meadow Spittlebug  Tobacco Budworm¹,⁴ European Corn Borer¹ Southwestern Corn Borer Stalk Borer¹ Hop Vine Borer¹ Armyworm² Fall Armyworm² Yellow-striped Armyworm² Webworm spp. Flea Beetle spp. Western Corn Rootworm Beetle (Adult) Northern Corn Rootworm Beetle (Adult) Southern Corn Rootworm Beetle (Adult) Bean Leaf Beetle (Adult) Bean Leaf Beetle Cereal Leaf Beetle Japanese Beetle (Adult) Stink Bug spp. Grasshopper spp. Corn Leaf Aphid³ Bird Cherry-Oat Aphid³ English Grain Aphid³	0.015 - 0.025	1.92 - 3.20 2.56 - 3.84	Apply as required by scouting or locally prescribed corn growth stages, usually at intervals of 7 or more days. Base timing and frequency of applications s based upon insect populations reaching locally determined economic thresholds or other locally recommended methods.  Apply with ground or air equipment using sufficient water and application methods to obtain full coverage of target location. When applying by air, apply in a minimum of 2 gals. of water/A.  For chinch bug control, begin applications when bugs migrate from small grains or grass weeds to small corn. Direct spray to the base of corn plants. Repeat applications at 3-5 day intervals if needed. Actylis Lambda-Cy may only suppress heavy infestations and/or subsequent migrations.  For control of adult corn rootworm beetles (Diabrotica species) as part of an aerial-applied corn rootworm control program, use a minimum of 3.84 fl. oz/A (0.03 lb. a.i./A).  'For control before the larva bores into the plant stalk or ear.  2 Use higher rates for large larvae.  3 Suppression only.  4 See resistance statement under PRODUCT INFORMATION.
	Beet Armyworm <sup>2, 4</sup> Chinch Bug Green Bug <sup>3,4</sup> Southern Corn Leaf Beetle Mexican Rice Borer <sup>1</sup> Rice Stalk Borer <sup>1</sup> Sugarcane Borer <sup>1</sup>	0.03	3.84	

- Do not apply within 21 days of harvest.
- Do not allow livestock to graze in treated areas or harvest treat corn forage as feed for meat or dairy animals within 1 day after last treatment. Do not feed treated corn fodder or silage to meat or dairy animals within 21 days after last treatment.
- Do not apply more than 0.03 lb. a.i. (0.24 pt. or 3.84 fl. oz. of product)/A in a single application.
- Do not apply more than 0.12 lb. a.i. (0.96 pt. or 15.36 fl. oz. of product)/A per crop from at-plant and foliar applications.
- Do not apply more than 0.06 lb. a.i. (0.48 pt. or 7.68 fl. oz. of product) after silk initiation.
- Do not apply more than 0.03 lb. a.i. (0.24 pt. or 3.84 fl. oz. of product) after corn has reached the milk stage (yellow kernels with milky fluid).
- Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 24 hours with the following exceptions:
  - o For hand or mechanically assisted detasseling of corn (field, pop) grown for seed, do not enter or allow worker entry into treated areas during the restricted- entry interval (REI) of 48 hours.

		Rate		
Crop	Target Pests	lb. a.i./A	fl. oz./A	Remarks
Crop CEREAL GRAINS: Corn (Foliar): Sweet Corn	Corn Earworm Fall Armyworm¹ Southern Armyworm¹ Beet Armyworm¹ Yellow-Striped Armyworm¹ Cutworm spp. Western Bean Cutworm Webworm spp. European Corn Borer Southwestern Corn Borer Common Cornstalk Borer Western Corn Rootworm Beetle (Adult) Northern Corn Rootworm Beetle (Adult) Southern Corn Rootworm Beetle (Adult) Southern Corn Rootworm Beetle (Adult) Mexican Corn Rootworm Beetle (Adult) Japanese Beetle (Adult) Sap Beetle (Adult) Flea Beetle spp.			Remarks  Apply as required by scouting, or locally prescribed corn growth stages, usually at intervals of 4 or more days. Base timing and frequency of applications upon insect populations reaching locally determined economic thresholds or other locally recommended methods and should be targeted for control before insects enter the stalk or ear.  Apply with ground or air equipment using sufficient water and application methods to obtain full coverage of foliage and ears (if present). When applying by air, apply in a minimum of 2 gals. of water/A.  For control of adult corn rootworm beetles (Diabrotica species) as part of an aerial applied corn rootworm control program, use a minimum of 3.2 fl. oz. of product/A (0.025 lb. a.i./A).  1 Use higher rates for large larvae. 2 Suppression only. 3 See resistance statement under PRODUCT INFORMATION.
	Tarnished Plant Bug Stink Bug spp. Chinch Bug			
	Aster Leafhopper Grasshopper spp. Aphid spp. <sup>2,3</sup> Spider Mite spp. <sup>2</sup>			
	Corn Silkfly (Adult) <sup>2</sup>	0.03	3.84	

- Do not apply within 1 day of harvest.
- Do not allow livestock to graze in treated areas or harvest treated corn forage as feed for meat or dairy animals within 1 day after last treatment.
- Do not feed treated corn fodder or silage to meat or dairy animals within 21 days after last treatment.
- Do not apply more than 0.03 lb. a.i. (0.24 pt. or 3.84 fl. oz. of product)/A in a single application.
- Do not apply more than 0.48 lb. a.i. (3.84 pts. or 61.44 fl. oz. of product)/A per season.
- Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 24 hours with the following exceptions:
  - o For hand or mechanically assisted detasseling of sweet corn grown for seed and hand harvesting of sweet corn grown for grain, do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 48 hours.

		Ra	te	
Crop	Target Pests	lb. a.i./A	fl. oz./A	Remarks
CEREAL	True Armyworm	0.025 - 0.04	3.20 - 5.12	See additional instructions below.
<b>GRAINS:</b>	Fall Armyworm			
Rice	Yellow-striped Armyworm			<sup>1</sup> For control before the larvae bores into the
Wild Rice	Rice Water Weevil (Adult)			plant stalk.
	Rice Stink Bug			
	Chinch Bug			
	Grasshopper spp.			
	Leafhopper spp.			
	Bird Cherry-Oat Aphid			
	Greenbug			
	Sharpshooter spp.			
	Yellow Sugarcane Aphid			
	Riceworm			
	European Corn Borer <sup>1</sup>	0.03 - 0.04	3.84 - 5.12	
	Mexican Rice Borer <sup>1</sup>			
	Rice Seed Midge <sup>1</sup>			
	Rice Stalk Borer <sup>1</sup>			
	Sugarcane Borer <sup>1</sup>			

#### **REMARKS:**

- Mixers/loaders supporting aerial applications to wild rice at a rate of 0.04 lb. a.i. per acre, and treating 1200 acres (or more) per day must wear a minimum of a NIOSH-approved elastomeric half mask respirator with organic vapor (OV) cartridges and combination R, or P filters; OR a NIOSH-approved gas mask with OV canisters; OR a NIOSH-approved powered air purifying respirator with OV cartridges and combination HE filters.
- Apply as required by scouting. Base timing and frequency of application upon insect populations reaching locally determined economic thresholds. Determine the need for repeat applications, usually at intervals of 5-7 days, by scouting.
- Actylis Lambda-Cy can be safely used when propanil products are being used for weed control.
- Apply by air or by ground equipment using sufficient water to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gals. of water (or a total carrier volume)/A but ensure sufficient volume is used to provide adequate coverage. In addition, adding an emulsifiable crop oil (e.g., 1 pt./A) when lower aerial application volumes are used is recommended to help improve coverage, reduce evaporation, and improve efficacy. Apply a minimum of 10 gallons/A by ground.
- For control of rice water weevil in dry seeded rice, make a foliar application as indicated by scouting for the presence of adults and/or feeding scars, usually within a time frame of 0-5 days after permanent flood establishment. Do not exceed 10 days from starting permanent flood until insecticide application unless scouting indicates weevils have not been previously present. Adults may also be treated at later stages of rice development to reduce overwintering populations.
- For control of rice water weevil in water seeded rice, make the first foliar application after pinpoint flood as indicated by scouting for the presence of adults and/or feeding scars usually when rice has emerged 0.5 inch above the waterline. Under conditions of prolonged migration into the field, start field scouting for rice water weevil adults and/or feeding scars 3-5 days after the initial treatment and, if needed, apply a second application within 7-10 days of the first application. Adults may also be treated at later stages of rice development to reduce overwintering populations.
- California: In addition to above directions for control of rice water weevil in water seeded rice, Actylis Lambda-Cy may be applied at the 1- to 3-leaf growth stage with the majority at the 2- leaf growth stage.
- Adults are vulnerable on levees and in the water. Larvae are vulnerable while feeding on the leaf prior to entering the soil. Monitor for adults, based upon field history and density of population. Monitor field edges and levee areas for adults. Treat in the following manner: (a) spray the inside perimeter of the field, or (b) spray the entire field.
- Greenbug is known to have many biotypes. Actylis Lambda-Cy may only provide suppression. If satisfactory control is not achieved with the first application of Actylis Lambda-Cy, a resistant biotype may be present. Use alternate chemistry for control.
- For control of stem borers, scout fields when rice growth is near panicle differentiation, for early symptoms of damaging populations exhibited as discoloration (orange-tan) around the junction of the leaf sheath and leaf blade which is caused by feeding of young larvae within the sheath. Applications must be made before larvae bore into rice stems. Make the first application at panicle differentiation to 2 inch panicle for partial control. Make the second application at boot to heading for maximum control. All rice varieties are susceptible to stem borer damage, but Cocodrie and Priscilla are particularly susceptible.

#### **Restrictions:**

- Do not release floodwater within 7 days of an application.
- Do not apply more than 0.12 lb. a.i. (0.96 pt. or 15.36 fl. oz. of product)/A per season.
- Do not apply more than 0.04 lb. a.i. (0.32 pt.)/A within 21 to 27 days of harvest.
- Do not apply within 21 days of harvest.
- Do not use treated rice fields for the aquaculture of edible fish and crustacea.
- Do not apply as an ultra-low volume (ULV) spray.

		Ra	te	
Crop	Target Pests	lb. a.i./A	fl. oz./A	Remarks
CEREAL GRAINS: Sorghum (Grain)	Cutworm spp. Sorghum Midge	0.015 - 0.02	1.92 - 2.56	Apply as required by scouting, usually at intervals of 5 or more days. Base timing and frequency of applications upon insect populations reaching locally determined economic thresholds.
	Armyworm Beet Armyworm <sup>1,3</sup> Fall Armyworm <sup>1</sup> Yellow-striped	0.02 - 0.03	2.56 - 3.84	Apply with ground or air equipment using sufficient water and application methods to obtain full coverage of target location. When applying by air, apply in a minimum of 2 gals. of water/A.
	Armyworm¹ Corn Earworm Webworm spp. European Corn Borer²			For sorghum midge control, begin applications when 25% of the sorghum heads have emerged and are in tip bloom. Repeat applications at 5-day intervals if needed.
	Southwestern Corn Borer <sup>2</sup> Lesser Cornstalk Borer <sup>2</sup> Flea Beetle spp. Stink Bug spp. Grasshopper spp.			For chinch bug control, begin applications when bugs migrate from small grains or grass weeds to small sorghum. Direct spray to the base of sorghum plants. Repeat applications at 3- to 5-day intervals if needed. Actylis Lambda-
	Chinch Bug Mexican Rice Borer <sup>2</sup> Rice Stalk Borer <sup>2</sup> Sugarcane Borer <sup>2</sup>	0.03	3.84	Cy may only suppress heavy infestations and/or subsequent migrations.  1 Use higher label rates for large larvae only. 2 For control before the larva bores into the plant stalk. 3 See resistance statement under PRODUCT INFORMATION.

- Do not apply within 30 days of harvest.
- Do not apply more than 0.08 lb. a.i. (0.64 pt. or 10.24 fl. oz. of product)/A per season.
- Do not apply more than 0.06 lb. a.i. (0.48 pt. or 7.68 fl. oz. of product)/A per season after crop emergence.
- Do not apply more than 0.02 lb. a.i. (0.16 pt. or 2.56 fl. oz. of product)/A per season once crop is in soft dough stage.

		Rat	te	
Crop	<b>Target Pests</b>	lb. a.i./A	fl. oz./A	Remarks
Crop  CEREAL GRAINS: Barley Buckwheat Oats Rye Wheat Wheat Hay Triticale	Target Pests  Cutworm spp. Army Cutworm  Armyworm Fall Armyworm Yellow-striped Armyworm Flea Beetle spp. Cereal Leaf Beetle Stink Bug spp. English Grain Aphid¹ Russian Wheat Aphid¹ Bird Cherry-Oat Aphid¹		1	Apply as required by scouting, usually at intervals of 5 or more days. Base timing and frequency of applications upon insect populations reaching locally determined economic thresholds.  Apply with ground or air equipment using sufficient water and application methods to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gals. of water/A.  For chinch bug control. repeat applications at 3-to 5-day intervals if needed. Actylis Lambda-Cy
	Grasshopper spp. Orange Blossom Wheat Midge Hessian Fly <sup>4</sup> Grass Sawfly Chinch Bug Greenbug <sup>1,2</sup> Corn Leaf Aphid <sup>2</sup> Mite Spp. <sup>2</sup>	0.025 - 0.03	3.20 - 3.84 3.84	may only suppress heavy infestations and/or migrations.  Greenbug is known to have many biotypes. Actylis Lambda-Cy may provide suppression only. In this situation, a second application using an alternative chemistry may be needed.  Best control is obtained before insects begin to roll leaves. Once wheat has started to boot, Actylis Lambda-Cy may provide suppression only. Higher label rates and increased coverage will be necessary.  Suppression only.  See resistance statement under PRODUCT INFORMATION.  Make applications when adults emerge.

- Do not apply within 30 days of harvest.
- Do not allow livestock to graze in treated areas or harvest treated wheat forage as feed for meat or dairy animals within 7 days after last treatment. Do not feed treated straw to meat or dairy animals within 30 days after last treatment.
- Do not apply more than 0.06 lb. a.i. (0.48 pt. or 7.68 fl. oz. of product) /A per season.

		Rate		
Crop	Target Pests	lb. a.i./A	fl. oz./A	Remarks
BRASSICA HEAD AND STEM CROPS: Broccoli Brussels Sprouts Cabbage Cavalo Broccolo Cauliflower Chinese Broccoli (gai lon) Chinese Cabbage (napa) Chinese Mustard Cabbage (gai choy) Kohlrabi	Alfalfa Looper Cabbage Looper Imported Cabbageworm Southern Cabbageworm Cutworm spp. Cabbage Webworm Diamondback Moth³ Armyworm Beet Armyworm¹ Yellow-striped Armyworm Corn Earworm Flea Beetle spp. Japanese Beetle (Adult) Vegetable Weevil (Adult) Grasshopper spp. Leafhopper spp. Plant Bug spp. including Lygus spp³ Stink Bug spp. Meadow Spittlebug Aphid spp.².³ Whitefly spp.².³ Thrips spp.² Spider Mite spp.²	0.015 - 0.025	1.92 - 3.20 2.56 - 3.84	Apply as required by scouting, usually at intervals of 5 or more days. Base timing and frequency of applications upon insect populations reaching locally determined economic thresholds.  Apply with ground or air equipment using sufficient water to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gals. of water/A.  ¹For control of first and second instar only. ²Suppression only. ³See resistance statement under PRODUCT INFORMATION.

- Do not apply within 1 day of harvest.
  Do not apply more than 0.24 lb. a.i. (1.92 pts. or 30.72 fl. oz. of product)/A per season.

		Ra	ite	
Crop	<b>Target Pests</b>	lb. a.i./A	fl. oz./A	Remarks
COTTON	Cutworm spp. Tobacco Thrips Soybean Thrips	0.015 - 0.02	1.92 - 2.56	Apply as required by scouting, usually at intervals of 5-7 days. Base timing and frequency of applications upon insect populations reaching
	Lygus Bug spp. <sup>3</sup> Pink Bollworm Cabbage Looper Cotton Leafperforator Saltmarsh Caterpillar Cotton Leafworm	0.02 - 0.03	2.56 - 3.84	locally determined economic thresholds.  Apply with ground or air equipment using sufficient water to obtain full coverage of foliage.  Applications may also be made with equipment adapted and calibrated for ULV sprays.
	Cotton Fleahopper Cotton Bollworm Tobacco Budworm <sup>3</sup>	0.025 - 0.04	3.20 - 5.12	Actylis Lambda-Cy may be mixed with oncerefined vegetable oil and applied in a minimum of at least 1 qt. of finished spray/A.
	Boll Weevil Fall Armyworm Beet Armyworm <sup>1,3</sup> European Corn Borer Brown Stink Bug			Under light bollworm/budworm infestation levels, 0.02 lb. a.i./A may be applied in conjunction with intense field monitoring, For boll weevil control spray on a 3- to 5-day schedule.
	Green Stink Bug Southern Green Stink Bug Two-spotted Spider Mite <sup>2</sup> Cotton Aphid <sup>2,3</sup>			When applied according to label directions for control of cotton bollworm and tobacco budworm, Actylis Lambda-Cy also provides ovicidal control of unhatched <i>Heliothis</i> spp, eggs.
	Bandedwing Whitefly <sup>2,3</sup> Sweetpotato Whitefly <sup>2,3</sup>			<sup>1</sup> For control of first and second instar only. <sup>2</sup> Suppression only. <sup>3</sup> See resistance statement under PRODUCT INFORMATION.

- Do not apply within 21 days of harvest.
- Do not graze livestock in treated areas.
- Do not apply more than 0.2 lb. a.i. (1.6 pts. or 25.6 fl. oz. of product)/A per season.
- Do not make more than a total of 10 synthetic pyrethroid applications (of one product or combination of products) to a cotton crop in one growing season.

	Rate			
Crop	Target Pests	lb. a.i./A	fl. oz./A	Remarks
Crop  CUCURBIT  VEGETABLES CROP  GROUP  Including: Chayote (fruit) Chinese Waxgourd (Chinese preserving melon) Citron Melon Cucumber Gherkin	Target Pests  Armyworm spp.  Blister Beetle spp. Cabbage Looper Corn Earworm Cricket spp. Cucumber Beetle spp. (adults) Cutworm spp. Flea Beetle spp. Grasshopper spp. June Beetle spp.			Remarks  Ground application: Apply in sufficient spray volume to obtain full coverage of the foliage or target area. When applied by ground, a minimum of 10 gal. Solution per acre is recommended.  Air application: Apply in a minimum of 2 gals. Per acre or sufficient spray volume to obtain full coverage of the foliage or target area.  Monitor insect populations to determine timing and frequency of applications. Security
Gourd (edible)  Lagenaria spp. — Includes: hyotan, cucuzza  Luffa acutangula, Includes: hechima, Chinese okra  Momordica spp. Includes: balsam apple, balsam pear, bitter melon, Chinese cucumber  Muskmelon (hybrids and/or cultivars of Cucumis melo) — Includes: true cantaloupe cantaloupe,	Leaffooted Bug Leafhopper spp. Lygus Bug spp.' Melonworm Pickleworm Plant Bug spp. Rindworm spp. complex Saltmarsh Caterpillar Squash Beetle Squash Bug spp. Squash Vine Borer spp. Stink Bug spp. Thrips spp. <sup>1,2</sup> Tobacco Budworm <sup>1</sup> Webworm spp.			timing and frequency of applications. Scout fields at a minimum of 5 day intervals.  Apply in sufficient volume to ensure sufficient coverage of foliage.  Insects that bore or tunnel into leaves, vines, stems or fruit must be controlled before penetration. Only exposed insects (larvae and/or adults) can be controlled with foliar applications of Actylis Lambda-Cy.  1 See resistance statement under PRODUCT INFORMATION. 2 Does not include Western Flower Thrips. 3 Suppression only.
casaba, crenshaw melon, golden pershaw melon honeydew melon, honey balls, mango melon Persian melon, pineapple melon, Santa Claus melon, snake melon Pumpkin Squash, summer (Cucurbita pepe var. melopepo) — Includes: crookneck squash straightneck squash vegetable marrow, zucchini Squash, Winter (Cucurbita maxima, C. moschata) — Includes: Butternut squash,	Aphid spp. <sup>1</sup> Leafminer spp. <sup>1,3</sup> Spider Mite spp. <sup>3</sup> Whitefly spp. <sup>1,3</sup>	0.03	3.84	

calabaza,		
hubbard squash		
(C. mixta: C. pepo) –		
Includes:		
acorn squash,		
spaghetti squash		
Watermelon – Includes:		
Hybrids and/or		
varieties of Citrulius		
lanatus		

- Do not apply more than 0.18 lb. a.i. (1.44 pts. or 23 fl. oz. of product)/A per season.
- Do not apply within 1 day of harvest.

		Rate		
Crop	<b>Target Pests</b>	lb. a.i./A	fl. oz./A	Remarks
FRUITING VEGETABLES: Tomato and	Cabbage Looper Cutworm spp. Hornworm spp.	0.015 - 0.025	1.92 - 3.20	Apply as required by scouting, usually at intervals of 5 or more days. Base timing and frequency of applications upon insect
Tomatillo Peppers (bell and non-bell) Eggplant Ground Cherry Pepino	Tomato Fruitworm Tobacco Budworm³ Tomato Pinworm Beet Armyworm¹,³ Southern Armyworm¹ Yellow-striped Armyworm¹ Fall Armyworm¹ European Corn Borer⁴ Leafminer spp.² Colorado Potato Beetle³ Flea Beetle spp. Grasshopper spp. Leafhopper spp. Leafhopper spp. Aphid spp²,³ Whitefly spp²,³ Meadow Spittlebug Stink Bug spp. Plant Bug spp. Stalk Borer ⁴ Blister Beetle spp. Japanese Beetle (Adult) Pepper Weevil (Adult)² Vegetable Weevil (Adult) Tomato Psyllid²,³ Spider Mite spp.² Thrips⁵ Cucumber Beetle spp. (Adult)	0.02 - 0.03	2.56 - 3.84	populations reaching locally determined economic thresholds.  Apply with ground or air equipment using sufficient water to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gals. of water/A.  ¹For control of first and second instar only. ²Suppression only. ³See resistance statement under PRODUCT INFORMATION. ⁴For control before the larva bores into the plant stalk or fruit. ⁵Does not include Western Flower Thrips.

### **Restrictions:**

- Do not apply within 5 days of harvest.
- Do not apply more than 0.36 lb. a.i. (2.88 pts. or 46.08 fl. oz. of product)/A per season.

		Rai	te	
Crop	Target Pests	lb. a.i./A	1	Remarks
Crop GRASS FORAGE, FODDER, AND HAY Pasture and Rangeland Grass, Grass Grown for Hay or Silage, Grass Grown for Seed	Target Pests  Army Cutworm Cutworm spp. Essex Skipper Range Caterpillar Striped Grass Looper  Beet Armyworm Billbug spp.³ Bird Cherry-Oat Aphid¹ Black Grass Bug Black Turfgrass Beetle (Adult) Blue Stem Midge Cereal Leaf Beetle Chinch Bug Crane Fly spp. Cricket spp. English Grain Aphid¹ Fall Armyworm Flea Beetle spp. Grass Mealybug Grass Sawfly (Adult) Grasshopper spp. Green June Beetle (Adult) Greenbug¹,² Japanese Beetle (Adult) Katydid spp. Leafhopper spp. Mite spp. Russian Wheat Aphid¹ Southern Armyworm Spittlebug spp. Stink Bug spp.	Rat Ib. a.i./A 0.015 - 0.025 0.02 - 0.03	fl. oz./A 1.92 - 3.20  2.56 - 3.84	Remarks  Ground application: Apply in sufficient spray volume to obtain full coverage of the foliage or target area.  Air application: Apply in a minimum of 2 gals. per acre or sufficient spray volume to obtain full coverage or target area.  Monitor insect populations to determine timing and frequency of applications. Scout fields at a minimum of 5 day intervals.  Apply in sufficient volume to ensure sufficient coverage of foliage.  Chinch bugs: Actylis Lambda-Cy may only suppress heavy infestations and/or migrations. In this situation, a second application using an alternative chemistry may be needed.  Greenbug: Greenbug is known to have many biotypes. Actylis Lambda-Cy may provide suppression only. In this situation, a second application using an alternative chemistry may be needed.  Pasture and rangeland grass: May be used for grazing or cut for forage 0 days after application. Do not cut grass to be dried and harvested for hay until 7 days after the last application.  Grass grown for seed: Straw and mature seed (seed screenings) may be used as feed 7 days after the last application. Regrowth of grass grown for seed may be used for grazing, cut for forage or cut to be dried and harvested for hay. <sup>1</sup> Best control is obtained before insects begin to roll leaves. <sup>2</sup> See resistance statement under PRODUCT INFORMATION <sup>3</sup> Suppression only.
	Japanese Beetle (Adult) Katydid spp. Leafhopper spp. Mite spp. Russian Wheat			(seed screenings) may be used as feed 7 days after the last application. Regrowth of grass grown for seed may be used for grazing, cut for forage or cut to be dried and harvested for hay.  1 Best control is obtained before insects
	Southern Armyworm Spittlebug spp.			<sup>2</sup> See resistance statement under PRODUCT INFORMATION
Restrictions:	Webworm spp. Yellowstriped Armyworm			

- Do not apply more than 0.03 lb. a.i. (0.24 pt. or 3.84 fl. oz. of product)/A per cutting for pasture, rangeland and grasses grown for seed. A minimum re-treatment interval (RTI) of 30 days is required for pastures and rangeland receiving 0.03 lb. a.i./A which have not been cut between applications.
- Do not apply more than 0.09 lb. a.i. (0.72 pt. or 11.52 fl. oz. of product)/A per season.

		Rate		
Crop	Target Pests	lb. a.i./A	fl. oz./A	Remarks
Crop  LEGUME VEGETABLES (BEANS AND PEAS): Edible Podded (only) Canavalia gladiatasword bean Canavalia ensiformis  jackbean Glycine max - Soybean (immature seed) Edible Podded, Succulent Shelled or Dried Shelled Phaseolus spp includes: field, kidney, lima, navy, pinto, runner, snap, tepary, and wax beans Vigna spp includes: adzuki, asparagus, moth, mung, rice, urd and yard long beans, black-eyed pea, catjang, Chinese longbean, cowpea,	Cutworm spp. Green Cloverworm Imported Cabbageworm Saltmarsh Caterpillar Velvetleaf Caterpillar Mexican Bean Beetle			Remarks  Apply as required by scouting. Usually at intervals of 5 or more days. Base timing and frequency of applications upon insect populations reaching locally determined economic thresholds.  Apply with ground or air equipment using sufficient water to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gals. of water/A.   1For control before the larva bores into the plant stalk or pods.  2Use higher label rates for large larvae.  3For suppression only.  4See resistance statement under PRODUCT INFORMATION.  5Does not include Western Flower Thrips.
mung, rice, urd and yard long beans, black-eyed pea, catjang, Chinese				

C 11 1		0.02.0.02	2.56. 2.04	
field, garden, green,	Corn Earworm	0.02 - 0.03	2.56 - 3.84	
snow and sugar	Painted Lady Butterfly			
snap peas	(larva)			
Cajanus cajan -	European Corn Borer			
Pigeon pea	Looper spp.			
Succulent	Western Bean			
Shelled or Dried	Cutworm			
Shelled	Tobacco Budworm <sup>4</sup>			
Vicia faba	Armyworm <sup>2</sup>			
broadbean	Fall Armyworm <sup>2</sup>			
(favabean)	Yellow-striped			
Dried Shelled (only)	Armyworm <sup>2</sup>			
Lupinus spp	Western Yellow-			
includes: grain,	striped Armyworm <sup>2</sup>			
sweet, white and	Bean Leaf			
sweet white lupines	skeletonizer			
Cicer arietimum -	Webworm spp.			
Chickpea (garbanzo	Leaftier spp.			
bean)	Alfalfa Caterpillar			
Cyamopsis	Stalk Borer <sup>1</sup>			
tetragonoloba -	Cucumber Beetle			
guar	spp. (Adult)			
Lablab pupureus -	Corn Rootworm			
Lablab bean	Beetle spp. (Adult)			
(hyacinth bean)	Flea Beetle spp.			
Lens esculata -	(Adult)			
Lentils	Curculio and Weevil			
	spp.¹ (foliage and			
	pod feeding adults			
	and larvae)			
	Blister Beetle spp.			
	Bean Leaf Beetle			
	Japanese Beetle			
	(Adult)			
	Leafhopper spp.			
	Flea Hopper spp.			
	Three-cornered			
	Alfalfa Hopper			
	Meadow Spittlebug			
	Stink Bug spp.			
	Plant Bug spp.			
	Including			
	Lygus spp. <sup>4</sup>			
	Grasshopper spp.			
	Thrips spp <sup>4,5</sup>			
	Aphid spp <sup>4</sup> Beet Armyworm <sup>3,4</sup>	0.03	3.84	
	Soybean Looper <sup>3,4</sup>	0.03	3.84	
	Lesser Cornstalk			
	Borer <sup>3</sup>			
	Leafminer spp <sup>3,4</sup>			
	Whitefly spp <sup>3,4</sup>			
	Spider Mite Spp <sup>3</sup>			
-	spiner write spp.			

- For edible podded and succulent shelled legume vegetables, do not apply within 7 days of harvest.
- For dried shelled legume vegetables, do not apply within 21 days of harvest.
- Do not apply more than 0.12 lb. a.i. (0.96 pt. or 15.36 fl. oz. of product)/A per season.
- For succulent and dried shelled peas and beans, do not graze livestock in treated areas or harvest vines for forage or hay.

		Rate		
Crop	Target Pests	lb. a.i./A	fl. oz./A	Remarks
LEGUME VEGETABLES: Soybean	Corn Earworm Velvetbean Caterpillar Green Cloverworm Cabbage Looper Painted Lady (Thistle) Caterpillar Saltmarsh Caterpillar Woollybear Caterpillar Cutworm spp. Bean Leaf Beetle Mexican Bean Beetle Western Corn Rootworm Beetle (Adult) Northern Corn Rootworm Beetle (Adult) Southern Corn Rootworm Beetle (Adult) Southern Corn Rootworm Beetle (Adult) Three-Cornered Alfalfa Hopper Potato Leafhopper Thrips spp. 5	lb. a.i./A 0.015 - 0.025	1.92 - 3.20	Apply as required by scouting, usually at intervals of 5 or more days. Base timing and frequency of applications upon insect populations reaching locally determined economic thresholds.  Apply with ground or air equipment using sufficient water to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gals. of water/A.  For control of adult corn rootworm beetles ( <i>Diabrotica</i> species) as part of an aerial applied corn rootworm control program, use a minimum of 2.56 fl. oz./A (0.02 lb. a.i./A). <sup>1</sup> Use higher rates for large larvae. <sup>2</sup> Suppression only. <sup>3</sup> See resistance statement under PRODUCT INFORMATION. <sup>4</sup> Use lower label rates for early season applications and/or lighter populations. <sup>5</sup> Does not include Western Flower Thrips.
Restrictions:	Soybean Aphid <sup>4</sup> Armyworm <sup>1</sup> Fall Armyworm <sup>1</sup> Yellow-striped  Armyworm <sup>1</sup> Tobacco Budworm <sup>3</sup> Webworm spp.  European Corn Borer Silverspotted Skipper  Japanese Beetle (Adult)  Blister Beetle spp.  Stink Bug spp.  Plant Bug spp.  Plant Bug spp.  Grasshopper spp.  Beet Armyworm <sup>2,3</sup> Soybean Looper <sup>2,3</sup> Lesser Cornstalk  Borer <sup>2</sup> Spider Mite spp. <sup>2</sup>	0.025 - 0.03	3.20 - 3.84	

- Do not apply within 30 days of harvest.
- Do not apply more than 0.06 lb. a.i. (0.48 pt.)/A per season.
- Do not graze or harvest treated soybean forage, straw, or hay for livestock feed.

		Rate		
Crop	Target Pests	lb. a.i./A	fl. oz./A	Remarks
LETTUCE (HEAD AND LEAF)	Alfalfa Looper Cabbage Looper Imported Cabbageworm Cutworm spp. Saltmarsh Caterpillar Green Cloverworm Diamondback Moth³ Armyworm Beet Armyworm¹ Southern Armyworm Corn Earworm Tobacco Budworm³ European Corn Borer Flea Beetle spp. Japanese Beetle (Adult) Vegetable Weevil (Adult) Grasshopper spp. Leafhopper spp. Leafhopper spp. Including Lygus spp.³ Stink Bug spp. including Lygus spp.³ Stink Bug spp. Meadow Spittlebug Aphid spp.² Spider Mite spp.²	0.015 - 0.025	1.92 - 3.20 2.56 - 3.84	Apply as required by scouting, usually at intervals of 5 or more days. Base timing and frequency of applications upon insect populations reaching locally determined economic thresholds.  Apply with ground or air equipment using sufficient water to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gals. of water/A.  'For control of first and second instar only.  2 Suppression only.  3 See resistance statement under PRODUCT INFORMATION.

- Do not apply within 1 day of harvest.
  Do not apply more than 0.3 lb. a.i. (2.4 pts. or 38.4 fl. oz. of product)/A per season.

		Rat	te	
Crop	Target Pests	lb. a.i./A	fl. oz./A	Remarks
ONION (BULB) AND GARLIC	Cutworm spp. Seedcorn Maggot (Adult) Onion Maggot (Adult) Leafminer spp. (Adult) Armyworm spp.¹ Onion Thrips ³ Tobacco Thrips ³ Western Flower Thrips²,³ Flower Thrips²,³ Aphid spp.² Plant Bug spp. Stink Bug spp.	0.015 - 0.025	1.92 - 3.20 2.56 - 3.84	Apply as required by scouting, usually at intervals of 5 or more days, Base timing and frequency of applications upon insect populations reaching locally determined economic thresholds.  Use the higher label rates as thrips population increases and avoid rescue situations.  Apply with ground or air equipment using sufficient water and application methods to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gals. of water/A.  For thrips control by aerial application, the addition of 1 % COC v/v, 1/4% NIS v/v, or a silicone adjuvant (follow manufacturer's use directions) may enhance the deposition of the spray and increase plant coverage.  ¹For control of the first and second instars only. ²Suppression only. ³See resistance statement under PRODUCT

		INFORMATION

- Do not apply within 14 days of harvest.
- Do not apply more than 0.24 lb. a.i. (1.92 pts. or 30.72 fl. oz. of product)/A per season.

		Ra	te	
Crop	Target Pests	lb. a.i./A	fl. oz./A	Remarks
PEANUT	Cutworm spp. Green Cloverworm Velvetbean Caterpillar Red-necked Peanut Worm Potato Leafhopper Corn Earworm Fall Armyworm¹ Bean Leaf Beetle Southern Corn Rootworm (Adult) Vegetable Weevil Whitefringed Beetle (Adult) Stink Bug spp. Tobacco Thrips Grasshopper spp.	0.015 - 0.025	1.92 - 3.20 2.56 - 3.84	Apply as required by scouting, usually at intervals of 7 or more days. Base timing and frequency of applications upon insect populations reaching locally determined economic thresholds.  Apply with ground or air equipment using sufficient water to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gals. of water/A.  ¹Use higher label rates for large larvae. ²Suppression only. ³See resistance statement under PRODUCT INFORMATION.
	Beet Armyworm <sup>2,3</sup> Soybean Looper <sup>2,3</sup> Lesser Cornstalk Borer <sup>2</sup> Spider Mite spp. <sup>2</sup> Aphid spp. <sup>2</sup>	0.03	3.84	

### **Restrictions:**

- Do not apply within 14 days of harvest.
- Do not apply more than 0.12 lb. a.i. (0.96 pt. or 15.36 fl. oz. of product)/A per season.
- Do not graze livestock in treated areas. Do not use treated vines or hay for animal feed.

		Rate		
Crop	Target Pests	lb. a.i./A	fl. oz./A	Remarks
POME FRUITS: Apple Crabapple Loquat Mayhaw Oriental Pear Pear Quince	Leafroller spp. Codling Moth Tufted Apple Budworm Oriental Fruit Moth Lesser Appleworm Green Fruitworm Tent Caterpillar spp. Tentiform Leaf Miner spp. Apple Maggot (Adult) Cherry Fruit Fly spp. (Adult) Pear Sawfly Plum Curculio Japanese Beetle Plant Bug spp. Stink Bug spp. Leafhopper spp. Periodical Cicada Apple Aphid Rosy Apple Aphid Pear Psylla¹ San Jose Scale (fruit infestations only) Orange Tortrix Omnivorous Leafroller Spirea Aphid¹ Tree Borer spp. Webworm spp.	0.02 - 0.04	2.56 - 5.12	Apply as required by scouting, usually at intervals of 5 or more days. Base timing and frequency of applications upon insect populations reaching locally determined economic thresholds.  Apply with ground or air equipment using sufficient water to obtain full coverage of the foliage or target area. When applying by air, apply in a minimum of 5 gals. of water/A but use higher volumes as appropriate for thorough coverage.  ¹Suppression only.

- Do not apply within 21 days of harvest.
- Do not apply more than 0.04 lb. a.i. (0.32 pt. or 5.12 fl. oz. of product)/A in a single application.
- Do not apply more than 0.2 lb. a.i. (1.6 pts. or 25.6 fl. oz. of product)/A per year.
- Do not apply more than 0.16 lb. a.i. (1.28 pts. or 20.48 fl. oz. of product)/A per year post bloom.

	Rat	te	
Target Pests	lb. a.i./A	fl. oz./A	Remarks
Leafroller spp.	0.02 - 0.04	2.56 - 5.12	Apply as required by scouting, usually at
Peach Twig Borer			intervals of 5 or more days. Base timing and
Oriental Fruit Moth			frequency of applications upon insect
Peachtree Borer spp.			populations reaching locally determined
Green Fruitworm			economic thresholds and IPM.
Tent Caterpillar spp.			Apply with ground or air equipment using
American Plum Borer			sufficient water to obtain full coverage of the
Cherry Fruit Fly spp.			foliage or target area. When applying by air,
(Adult)			apply in a minimum of 5 gals. of water/A, but
Plum Curculio			use higher volumes as appropriate for thorough
			coverage.
•			oo vorage.
- 11			
e e			
2			
Thrips spp.			
	Leafroller spp. Peach Twig Borer Oriental Fruit Moth Peachtree Borer spp. Green Fruitworm Tent Caterpillar spp. American Plum Borer Cherry Fruit Fly spp. (Adult)	Target Pests  Leafroller spp. Peach Twig Borer Oriental Fruit Moth Peachtree Borer spp. Green Fruitworm Tent Caterpillar spp. American Plum Borer Cherry Fruit Fly spp. (Adult) Plum Curculio Rose Chafer Japanese Beetle Plant Bug spp. Stink Bug spp. Leafhopper spp. Periodical Cicada Black Cherry Aphid Apple Maggot (Adult) Codling Moth June Beetle Pear Sawfly	Leafroller spp. Peach Twig Borer Oriental Fruit Moth Peachtree Borer spp. Green Fruitworm Tent Caterpillar spp. American Plum Borer Cherry Fruit Fly spp. (Adult) Plum Curculio Rose Chafer Japanese Beetle Plant Bug spp. Stink Bug spp. Leafhopper spp. Periodical Cicada Black Cherry Aphid Apple Maggot (Adult) Codling Moth June Beetle Pear Sawfly

- Do not apply within 14 days of harvest.
- Do not apply more than 0.04 lb. a.i. (0.32 pt. or 5.12 fl. oz. of product)/A in a single application.
- Do not apply more than 0.2 lb. a.i. (1.6 pts. or 25.6 fl. oz. of product)/A per year.
- Do not apply more than 0.16 lb. a.i. (1.28 pts. or 20.48 fl. oz. of product)/A per year post bloom.

		Rate		
Crop	Target Pests	lb. a.i./A	fl. oz./A	Remarks
SUGARCANE	Sugarcane Borer <sup>1</sup> Rice Stalk Borer <sup>1</sup> Sugarcane Beetle (Adult) <sup>2</sup> Yellow Sugarcane Aphid <sup>3</sup> Mexican Rice Borer <sup>1</sup> Pygmy Mole Cricket Sugarcane Aphid <sup>3</sup> West Indian Cranefly	0.025 - 0.04	3.20 - 5.12	Apply as required by scouting, usually at intervals of 7 or more days. Base timing and frequency of applications upon insect populations reaching locally determined economic threshold.  Apply with ground or air equipment using sufficient water to obtain full coverage of the foliage or target area. When applying by air, apply a minimum of 2 gals. of water/A.
				<sup>1</sup> For control before the larva bores into the plant stalk. <sup>2</sup> Suppression only of beetles active above ground. <sup>3</sup> See resistance statement under PRODUCT INFORMATION.

### Restrictions:

- Do not apply within 21 days of harvest.
- Do not apply more than 0.16 lb. a.i. (1.28 pts. or 20.48 fl. oz. of product)/A per season.

		Rat	te	
Crop	Target Pests	lb. a.i./A	fl. oz./A	Remarks
Crop SUNFLOWER	Target Pests  Sunflower Beetle Cutworm spp.  Sunflower Moth Banded Sunflower Moth Fall Armyworm¹ Woollybear Caterpillar Spotted Cabbage Looper Painted Lady (Thistle) Caterpillar Seed Weevil (Adult) Stem Weevil (Adult) Head-Clipper Weevil (Adult) Japanese Beetle			Remarks  Apply as required by scouting, usually at intervals of 5 or more days. Base timing and frequency of applications upon insect populations reaching locally determined economic thresholds.  Apply with ground or air equipment using sufficient water to obtain full coverage of sunflower heads and/or foliage. When applying by air, apply in a minimum of 2 gals. of water/A.  1 Use higher rates for large larvae. 2 Suppression only. 3 See resistance statement under PRODUCT INFORMATION.
	(Adult) Sunflower Maggot (Adult) Leafhopper spp. Meadow Spittlebug Stink Bug spp. Grasshopper spp. Beet Armyworm <sup>2,3</sup> Spider Mite spp. <sup>2</sup>	0.03	3.84	

- Do not apply within 45 days of harvest.
- Do not apply more than 0.12 lb. a.i. (0.96 pt. or 15.36 fl. oz. of product)/A per season.
- Do not apply more than 0.09 lb. a.i. (0.72 pt. or 11.52 fl. oz. of product)/A per season after bloom initiation.
- Do not apply as an ultra-low volume (ULV) spray.

		Ra	te	
Crop	Target Pests	lb. a.i./A	fl. oz./A	Remarks
TOBACCO	Tobacco Budworm <sup>2</sup> Tobacco Hornworm Cabbage Looper Corn Earworm Salt Marsh Caterpillar Armyworm spp.' Cutworm spp. Webworm spp. Tobacco Flea Beetle (Adult) Cucumber Beetle spp. (Adult) Blister Beetle spp. Vegetable Weevil (Adult) Japanese Beetle (Adult) Grasshopper spp. Tree Cricket spp. Katydid spp. Plant Bug spp. <sup>3</sup> Stinkbug spp.	0.015 - 0.03	1.92 - 3.84	Apply as required by scouting, usually at intervals of 7 or more days. Base timing and frequency of applications upon insect populations reaching locally determined economic threshold.  Apply with ground or air equipment using sufficient water to obtain full coverage of the foliage. When applying by air, apply in a minimum of 2 gals. of water/A.  ¹For control of first and second instar only. ²Suppression only. ³See resistance statement under PRODUCT INFORMATION.

Tobacco Thrips spp. <sup>2</sup>	
Tobacco Aphid spp. <sup>2,3</sup>	
Tobacco Hornworm	
Potato Tuberworm	

- Do not apply within 40 days of harvest.
- Do not apply more than 0.09 lb. a.i. (0.72 pt. or 11.52 fl. oz. of product)/A per year.

		R	ate	
Crop	Target Pests	lb. a.i./A	fl. oz./A	Remarks
TREE NUTS: Almond Beech Nut Brazil Nut Butternut Cashew Chestnut Chinquapin Filbert (Hazelnut) Hickory Nut Macadamia Nut (Bush Nut) Pistachio Walnut, Black Walnut, English (Persian)	Leafroller spp. Navel Orangeworm Codling Moth Filbertworm Peach Twig Borer Walnut Husk Fly spp. (Adult) Ants Plant Bug spp. Stink Bug spp. Chinch Bug Leaffooted Bug Walnut Aphid	0.02 - 0.04	2.56 - 5.12	Apply as required by scouting, usually at intervals of 5 or more days. Base timing and frequency of applications upon insect populations reaching locally determined economic threshold.  Apply with ground or air equipment using sufficient water to obtain full coverage of the foliage or target area. When applying by air, apply in a minimum of 5 gals. of water/A, but use higher rates as appropriate for thorough coverage.
Pecan	Hickory Shuckworm Pecan Casebearer spp. Pecan Weevil Pecan Aphid spp. Pecan Spittlebug Pecan Phylloxera spp. Stink Bug spp.	0.02 - 0.04	2.56 - 5.12	

### **Restrictions:**

- Do not apply within 14 days of harvest.
- Do not apply more than 0.16 lb. a.i. (1.28 pts. or 20.48 fl. oz. of product)/A per year.
- Do not apply more than 0.12Ib. a.i. (0.96 pt. or 15.36 fl. oz. of product)/A per year post bloom.

		Ra	te	
Crop	Target Pests	lb. a.i./A	fl. oz./A	Remarks
TUBEROUS	Cutworm spp.	0.015 - 0.025	1.92 - 3.20	Ground application: Apply in sufficient
AND	Leafhopper spp.			spray volume to obtain full coverage of the
CORM	Saltmarsh			foliage or target area.
<b>VEGETABLES</b>	Caterpillar			<b>Air application:</b> Apply in a minimum of 2
CROP GROUP	Sweet Potato			gals. per acre or sufficient spray volume to
Including:	Hornworm			obtain full coverage of the foliage or target
Arracacha	Woolybear			
Arrowroot	Caterpillar spp.			area.
Artichoke	Aphid species <sup>1</sup>	0.02 - 0.03	2.56 - 3.84	Make applications when pests appear and
(Chinese	Armyworm spp. <sup>1</sup>			repeat applications as necessary, usually at
and Jerusalem	Blister Beetle spp.			intervals of 7 or more days. Apply in
only)	Colorado Potato			sufficient volume to ensure sufficient
Canna (edible)	Beetle <sup>1</sup>			coverage of foliage.
Cassava (bitter	Corn Earworm			Insects that bore or tunnel into leaves, vines,
and sweet)	Cricket spp.			stems, tubers, or corms must be controlled
Chayote (root)	Cucumber Beetle			stand, the sie, of terms must be controlled

Chufa Dasheen Ginger Leren Potato Sweet Potato Tanier Turmeric Yam (bean and true)	spp. (Adults) European Corn Borer Flea Beetle spp. (adults) Grasshopper spp. Looper spp. Lygus Bug spp. Plant Bug spp. Potato Psyllid Potato Tuberworn Stink Bug spp. Sweet Potato Leaf Beetle (Adults)			before penetration. Only exposed insects (larvae and/or adults) can be controlled with foliar applications of Actylis Lambda-Cy. <sup>1</sup> See resistance statement under PRODUCT INFORMATION <sup>2</sup> Does not include Western Flower Thrips. <sup>3</sup> Suppression only.
	Beetle (Adults) Sweet Potato Vine Borer Thrips spp. 1,2			
	Tortoise Beetle spp.			
	Webworm spp. Weevil spp. (Adults)			
	Leafminer spp. <sup>1,3</sup> Whitefly spp. <sup>1,3</sup> Spider Mite spp. <sup>3</sup>	0.03	3.84	

• Do not apply more than 0.12 lb. a.i. (0.96 pt. or 15.36 fl. oz. of product)/A per season.

• Do not apply within 7 days of harvest.

#### NON-AGRICULTURAL USES

All outdoor spray applications must be limited to spot or rack-and-crevice treatments only, except for the following permitted uses:

- 1. Application to pervious surfaces such as soil, lawn, turf, and other vegetation;
- 2. Perimeter band treatments of 7 feet wide or less from the base of a man-made structure to pervious surfaces (*e.g.*, soil, mulch, or lawn);
- 3. Applications to underside of eaves, soffits, doors, or windows permanently protected from rainfall by a covering, overhang, awning, or other structure;
- 4. Applications around potential exterior pest entry points into man-made structures such as doorways and windows, when limited to a band not to exceed one inch;
- 5. Applications to vertical surfaces (such as the side of a man-made structure) directly above impervious surfaces (e.g., driveways, sidewalks, etc.), up to 2 feet above ground level;
- 6. Applications to vertical surfaces directly above pervious surfaces, such as soil, lawn, turf, mulch or other vegetation) only if the pervious surface does not drain into ditches, storm drains, gutters, or surface waters

Spot treatments must not exceed two square feet in size (for example, 2 ft. by 1 ft. or 4 ft. by 0.5 ft.).

For soil or foliar applications, do not apply by ground within 25 feet of lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries and commercial fish farm ponds.

Do not apply the product into fish pools, ponds, streams, or lakes. Do not apply directly to sewers or storm drains, or to any area like a drain or gutter where drainage to sewers, storm drains, water bodies, or aquatic habitat can occur.

Do not allow the product to enter any drain during or after application.

Do not apply directly to impervious horizontal surfaces such as sidewalks, driveways, and patios except as a spot or crack-and-crevice treatment.

Do not apply or irrigate to the point of runoff.

Do not make applications during rain. Avoid making applications when rainfall is expected before the product has sufficient time to dry (minimum 4 hours). Rainfall within 24 hours after application may cause unintended runoff of pesticide application.

Treat surfaces to ensure thorough coverage but avoid runoff.

• To treat insects harbored in voids and cracks-and-crevices, applications must be made in such a manner to limit dripping and avoid runoff onto untreated structural surfaces and plants.

• Do not apply more than 0.24 lb. a.i. (1.92 pts. or 30.72 fl. oz. of product)/A per year.

		Rate		
Crop	Target Pests	lb. a.i./A	fl. oz./A	Remarks
CONIFER AND DECIDUOUS	Coneworm spp. Seed Bug spp. Thrips spp.	See Remarks	See Remarks	For high volume sprayers, dilute 5.12 fl. oz. per 100 gals. of water and apply 5-10 gals. of finished spray per tree.
TREES: Seed Orchards				For low volume sprayers, dilute 20 fl. oz. per 100 gals. of water and apply 100 gals. of finished spray per/A.
				For aerial applications, apply 15 fl. oz./A in a minimum of 10 gals. finished spray/A.
				Restrictions:  • Do not apply more than 0.5 lb. a.i. (4 pts. or 64 fl. oz. of product)/A per year.
NON- CROPLAND (Excluding	See Crop Outlets on this label for target pest and rates.	See Crop Outlets	See Crop Outlets	Spray non-cropland adjacent to agricultural areas to control migratory insects, which may threaten crops.
Public Land)				Follow use directions, rates, and spray recommendations found elsewhere in this label for the adjacent crop outlet and target pests.
				Use highest labeled rates for dense/large foliage, high insect populations, and larger larval stages. Repeat as necessary to maintain control.

- Do not exceed 0.2 lb. a.i. (1.6 pts. or 25.6 fl. oz. of product)/A per year.
  Do not graze livestock in treated areas.

		Rate		
Crop	<b>Target Pests</b>	lb. a.i./A	fl. oz./A	Remarks

		Rate		
Crop	Target Pests	lb. a.i./A	fl. oz./A	Remarks
Crop CONIFER AND DECIDUOUS TREES: Plantations Nurseries	Target Pests  Pine Tip Moth spp. Spruce Budworm Bagworm Tent Caterpillar spp. Leafroller spp. Gypsy Moth Webworm spp. Tussock Moth spp. Pine Sawfly spp. Sawfly spp. Pine Chafer Japanese Beetle May Beetle spp. June Beetle spp. Pine Colaspis Beetle Leaf Beetle spp. Pales Weevil Pine Weevil spp. Pine Conelet Bug Spittlebug spp. Pine Leaf Chermid			Remarks  To control exposed foliage, flower, cone, seed, and bark feeding insects, apply as required by scouting. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.  Apply with ground equipment using sufficient water to obtain full coverage of target site. When applying by air, apply a minimum of 2 gals. of water/A.  Suppression only.
Post discount	Balsam Wooly Aphid Balsam Twig Aphid Birch Leafminer Black Pine Weevil Elm Leaf Beetle European Elm Bark Beetle Mealybug spp. <sup>1</sup> Pine Needle Scale Pine Tortoise Scale Poplar Aphid spp.			

• Do not apply more than 0.24 lb. a.i. (1.92 pts. or 30.72 fl. oz. of product)/A per year.

		Rate		
Crop	Target Pests	lb. a.i./A	fl. oz./A	Remarks
CONIFER AND DECIDUOUS	Coneworm spp. Seed Bug spp. Thrips spp.	See Remarks	See Remarks	For high volume sprayers, dilute 5.12 fl. oz. per 100 gals. of water and apply 5-10 gals. of finished spray per tree.
TREES: Seed Orchards				For low volume sprayers, dilute 20 fl. oz. per 100 gals. of water and apply 100 gals. of finished spray per/A.
				For aerial applications, apply 15 fl. oz./A in a minimum of 10 gals. finished spray/A.
				•
Restrictions:				

Do not apply more than 0.5 lb. a.i. (4 pts. or 64 fl. oz. of product)/A per year.

		Rate			
Crop	Target Pests	lb. a.i./A	fl. oz./A	Remarks	
NON- CROPLAND (Excluding	See Crop Outlets on this label for target pest and rates.	See Crop Outlets	See Crop Outlets	Spray non-cropland adjacent to agricultural areas to control migratory insects, which may threaten crops.	
Public Land)				Follow use directions, rates, and spray recommendations found elsewhere in this label for the adjacent crop outlet and target pests.	
				Use highest labeled rates for dense/large foliage, high insect populations, and larger larval stages. Repeat as necessary to maintain control.	

- Do not exceed 0.2 lb. a.i. (1.6 pts. or 25.6 fl. oz. of product)/A per year.
  Do not graze livestock in treated areas.

**Rate Conversion Chart** 

Lb. A.I. Per Acre	Fl. Oz. Per Acre	Pints Per Acre	Treated Acres Per Gallon				
0.015	1.92	0.12	66				
0.02	2.56	0.16	50				
0.025	3.20	0.20	40				
0.03	3.84	0.24	33				
0.04	5.12	0.32	25				

### STORAGE AND DISPOSAL

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

threads on closure devices.

**Pesticide Storage:** Store in original containers only. Keep container closed when not in use. Do not store near food or feed. In case of spill or leak on floor or paved surfaces, soak up with sand, earth, or synthetic absorbent. Remove to chemical waste area.

**Pesticide Disposal:** Pesticide wastes are acutely hazardous. 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 at the nearest EPA Regional Office for guidance.

**Container Handling: Nonrefillable Container** – Do not reuse or refill container. Triple rinse container (or equivalent) promptly after emptying. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke. Triple rinse as follows:

Containers 5 gallons or less: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 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. Once cleaned, offer for recycling or reconditioning if appropriate.

Containers larger than 5 gallons: Empty the remaining contents into application equipment or a mix tank. Fill the container ½ full with water. Replace and tighten closures. Tip container on its side and roll back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip back and forth several times. Turn the container over onto its other end and tip back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Refillable Containers: Return container to point of purchase for reuse with seal intact and in salable condition. Refill this container with lambda-cyhalothrin only. Do not reuse this container for any other purpose. Before refilling, inspect thoroughly for damage such as cracks, punctures, bulges, dents, abrasions, and damaged or worn

After filling and before transporting, check for leaks. Do not refill or transport damaged or leaking container. Cleaning this container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller.

To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

For Chemical Emergency: Spill, Leak, Fire, Exposure, or Accident, call CHEMTREC 1-800-424-9300

#### WARRANTY DISCLAIMER AND NOTICE

#### **IMPORTANT: READ BEFORE USE**

Read the entire Directions for Use, Conditions, Disclaimer of Warranty and Limitations Liability before using this product. If the terms are not acceptable, return the unopen product at once.

By using this product, user or buyer accepts the following Conditions, Disclaimer of Warranties and Limitations of Liability.

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