

# RESTRICTED USE PESTICIDE

DUE TO TOXICITY TO FISH AND AQUATIC ORGANISMS

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

# Silencer®

GROUP 3 INSECTICIDE

**ACTIVE INGREDIENT:**

**% BY WT.**

Lambda-cyhalothrin; [1a(S\*), 3a(Z)]-(±)-cyano-  
(3 phenoxyphenyl) methyl-3-(2-chloro-3,3,3-trifluoro-1-  
propenyl)-2,2-dimethylcyclopropanecarboxylate: . . . . . 12.7%

**OTHER INGREDIENTS:** . . . . . 87.3%

**TOTAL:** . . . . . 100.0%

Contains 1 pound of active ingredient per gallon. Contains Petroleum Distillate.

EPA Reg. No. 66222-104 EPA Est. No. 37429-GA-001<sup>PT</sup>; 37429-GA-002<sup>PO</sup>

Letter(s) in lot number correspond(s) to superscript in EPA Est. No.

**SHAKE WELL BEFORE USING**

**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 this label, find someone to explain it to you in detail.)

**PRECAUTIONARY STATEMENTS**

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**WARNING:** May be fatal if swallowed. Causes substantial but temporary eye injury. Harmful if absorbed through skin or inhaled. Avoid breathing vapor or spray mist. Do not get in eyes, on skin, or on clothing. Wear appropriate protective clothing and eyewear as specified in the Personal Protective Equipment (PPE) section of this label. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

For additional Precautionary Statements, First Aid, and Directions for Use, see inside of this booklet.

**How can we help? 1-866-406-6262**



**INSECTICIDE**

**ADAMA**  
ESSENTIALS

## FIRST AID

<b>IF SWALLOWED:</b>	<ul style="list-style-type: none"><li>● Call a poison control center or doctor immediately for treatment advice.</li><li>● Do not give <b>any</b> liquid to the person.</li><li>● Do not induce vomiting unless told to do so by a poison control center or doctor.</li><li>● Do not give anything by mouth to an unconscious person.</li></ul>
<b>IF IN EYES:</b>	<ul style="list-style-type: none"><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>
<b>IF ON SKIN OR CLOTHING:</b>	<ul style="list-style-type: none"><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>
<b>IF INHALED:</b>	<ul style="list-style-type: none"><li>● Move person to fresh air.</li><li>● If person is not breathing, call 911 or an ambulance; then give artificial respiration, preferably mouth-to-mouth if possible.</li><li>● Call a poison control center or doctor for further treatment advice.</li></ul>

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact PROSAR at 1-877-250-9291 for emergency medical treatment information.

**NOTE TO PHYSICIAN:** Contains Petroleum Distillate. Vomiting may cause aspiration pneumonia.

FOR 24-HOUR EMERGENCY ASSISTANCE (SPILL, LEAK, OR FIRE), CALL INFOTRAC AT 1-800-535-5053.

## PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS WARNING

May be fatal if swallowed. Causes substantial but temporary eye injury. Harmful if absorbed through the skin or inhaled. Avoid breathing vapor or spray mist. Do not get in eyes, on skin, or on clothing. Wear appropriate protective clothing and eyewear as specified in the Personal Protective Equipment (PPE) section of this label. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Skin exposure may also result in a sensation described as a tingling, itching, burning, or prickly feeling. Onset may occur immediately to 4 hours after exposure and may last 2-30 hours, without damage. Wash exposed areas once with soap and water. Relief from the skin sensation may be obtained by applying an oil-based cream.

## 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 **G** 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 or Viton  $\geq$  14 mils
- 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 and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

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 directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. 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. Do not contaminate water when disposing of equipment wash water.

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.

## PHYSICAL AND CHEMICAL HAZARDS

**Combustible.** Do not use or store near heat or open flame.

# DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

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

## AGRICULTURAL USE REQUIREMENTS

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

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 24 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 of barrier laminate or Viton  $\geq$  14 mils
- Shoes plus socks
- Protective eyewear

## GENERAL INFORMATION

Apply in sufficient water for thorough coverage of listed crops unless otherwise specifically noted. Rate of application should be based upon pest pressure, timing of sprays, and field scouting. Use higher rates under heavy pest pressure and lower rates under low to moderate pest pressure. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds and other locally recommended methods. For ground and air applications, unless otherwise noted, the following spray volumes are recommended:

**Row Crops:** By ground, apply in a minimum of 10 gallons of finished spray per acre. By air, apply in a minimum of 2 gallons of finished spray per acre.

**Orchard and Vine Crops:** By ground, apply in a minimum of 50 gallons of finished spray per acre. By air, apply in a minimum of 10 gallons of finished spray per acre.

For cutworm control, Silencer<sup>®</sup> may be applied before, during, or after planting. For soil incorporated applications, use higher rates for improved control.

## RESISTANCE

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

If resistance to this product develops in your area, this product or other products with a similar mode of action, may not provide adequate control. If poor performance cannot be attributed to improper application or extreme weather conditions, a resistant strain of insect may be present. If you experience difficulty with control and resistance is a reasonable cause, immediately consult your local company representative or agricultural advisor for the best alternative method of control for your area.

## SPRAY DRIFT PRECAUTIONS

### 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 lambda-cyhalothrin 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.in.nrcs.usda.gov/technical/agronomy/newconbuf.pdf>

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

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).

In the state of New York, a 25-foot 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 or ground application. For aerial applications, the 25-foot vegetated non-cropped buffer strip for runoff protection would be part of the larger 150-foot buffer strip (or 450-foot buffer strip for ULV application) required for spray drift.

## **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.

## **TANK MIX APPLICATION**

Fill the spray tank at least one-third full of clean water or diluent. With the pump and agitator running continuously, add the recommended amount of each product in the tank mix to the spray tank and allow to fully disperse, adding Silencer last. Add the remainder of water or diluent to the spray tank. Follow the precautions and limitations of the most restricted product in the tank mixture.

**Compatibility testing for tank mixing partners:** Test compatibility of the intended tank mixture by adding proportionate amounts of each ingredient to a pint or quart jar, cap, shake, and let set 15 minutes. Formation of precipitates that do not readily redispense indicates an incompatible mixture that should not be used.

Non-emulsifiable oils are not recommended for use in combination with Silencer. If adjuvants are used, use only:

- Nonionic Surfactant (NIS) containing at least 75% surface agent, or
- Non-phytotoxic Crop Oil Concentrate (COC) including once refined Vegetable Oil concentrate (VOC), or
- Methylated Seed Oils (MSO) containing a minimum of 17% emulsifier.

Adjuvants other than NIS or COC may be used providing the product;

1. Contains only EPA exempt ingredients.
2. Is non-phytotoxic to the target crop.
3. Is compatible in mixture (may be established through a jar test).
4. Is supported locally for use with Silencer on the target crop through proven field trials and through university and extension recommendations.

The following may be used as diluents:

Crop Oil Concentrate  
Methylated Seed Oils  
Urea-Ammonium Nitrate

The following should not be used in combination with Silencer as diluents or adjuvants:

Non-emulsifiable Oils  
Diesel Fuel  
Straight Mineral Oil

When an adjuvant is to be used with this product, ADAMA suggests the use of a Chemical Producers and Distributors Association certified adjuvant.

## CHEMIGATION

### Sprinkler Irrigation Application

Apply Silencer at rates and timing described elsewhere in this label. Consult your local State Extension Service or other local experts for recommendations pertinent for your area.

Thorough, uniform 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 recommended rate of Silencer 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. The product should 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.

Additionally, if application is being made during a normal irrigation set of a stationary sprinkler, the recommended rate of Silencer 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 Silencer 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**

Apply this product only through sprinkler irrigation systems (including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move). Do not apply this product through any other type of irrigation system.

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water. If you have questions about calibration, you should contact state extension service specialist, equipment manufacturers, or other experts.

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.

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.

The system must contain a functional check valve, vacuum relief valve, and a 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.

Do not apply through chemigation systems connected to public water systems.



**CROP USE RECOMMENDATIONS  
AGRICULTURAL USES**

CROP	TARGET PESTS	RATE		REMARKS
		lb. a.i./A	fl oz/A	
<b>ALFALFA AND ALFALFA GROWN FOR SEED</b>	Alfalfa Caterpillar Army cutworm Cutworm spp. Green Cloverworm Leafhopper spp. Looper spp. Threecornered Alfalfa Hopper Velvetbean Caterpillar Webworm spp.	0.015-0.025	1.92-3.20	<p><b>Ground application:</b> Apply in a minimum of 10 gals. per acre or sufficient spray volume to obtain full coverage of the foliage or target area.</p> <p><b>Air application:</b> Apply in a minimum of 2 gals per acre or sufficient spray volume to obtain full coverage of the foliage or target area.</p> <p>Make applications when pests appear. Apply in sufficient volume to ensure sufficient coverage of foliage.</p>
	Alfalfa Seed Chalcid (Adult) Alfalfa Weevil Armyworm Bean Leaf Beetle (Adult) Blister Beetle spp. Blue Alfalfa Aphid Clover Leaf Weevil spp. Clover Root Borer (Adult) Clover Root Curculio spp. (Adult) Clover Stem Borer (Adult) Corn Earworm Cowpea Aphid Cowpea Curculio (Adult) Cowpea Weevil (Adult) Cucumber Beetle spp. (Adult) 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	0.02-0.03	2.56-3.84	<p>When foliage is dense and/or pest populations are high, use 5-10 gals/A by air or 20 gals/A by ground and higher use rates. Use higher rates for increased residual control.</p> <p>Avoid application when bees are actively foraging by applying during the early morning or during the evening hours. Be aware of bee hazard resulting from a cool evening and/or morning dew. It may be advisable to remove bee shelters during and for 2-3 days following application. Avoid direct application to bee shelters.</p> <p>Apply only to fields planted to pure stands of alfalfa.</p> <p>Apply as required by scouting.</p> <p><sup>1</sup> For control of first and second instars only. <sup>2</sup> Suppression only. <sup>3</sup> See resistance statement under <b>GENERAL INFORMATION.</b></p> <p><sup>4</sup> Does not include Western Flower Thrips</p>

CROP	TARGET PESTS	RATE		REMARKS
		lb. a.i./A	fl oz/A	
ALFALFA AND ALFALFA GROWN FOR SEED	Mexican Bean Beetle Pea Aphid Pea Weevil (Adult) Plant Bug spp., including Lygus spp. <sup>2</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	0.02-0.03	2.56-3.84	see <i>previous page</i>
	Beet Armyworm <sup>1,3</sup> Blotch Leafminer <sup>3</sup> Spider Mites <sup>2</sup>	0.03	3.84	<ul style="list-style-type: none"> <li>Do not apply more than 0.03 lb a.i. (0.24 pt) per acre per cutting.</li> <li>Do not apply more than 0.12 lb a.i. (0.96 pt) per acre per season.</li> <li>Do not apply within 1 day of harvest for forage or within 7 days of harvest for hay.</li> </ul>
CROP	TARGET PESTS	RATE		REMARKS
		lb. a.i./A	fl oz/A	
CANOLA	Armyworm spp. Cabbage Seedpod Weevil Cutworm spp. Diamondback Moth Flea Beetle Grasshoppers Looper spp. Lygus Bug	0.015-0.03	1.92-3.84	<p><b>Ground application:</b> Apply in sufficient spray volume to obtain full coverage of the foliage or target area.</p> <p><b>Air application:</b> Apply in a minimum of 2 gals per acre or sufficient spray volume to obtain full coverage of the foliage or target area.</p> <p>Make applications when pests appear and repeat applications as necessary, usually at intervals of 5 or more days. Apply in sufficient volume to ensure sufficient coverage of foliage.</p>
	Cabbage Aphid	0.03	3.84	<ul style="list-style-type: none"> <li>Do not apply within 7 days of harvest.</li> <li>Do not apply more than 0.09 lb a.i. (0.72 pt) per acre per year.</li> </ul>

CROP	TARGET PESTS	RATE		REMARKS			
		lb. a.i./A	fl oz/A				
<b>CEREAL GRAINS:</b> <b>Corn</b> <b>(At-Plant):</b> Field Corn Popcorn Seed Corn Sweet Corn	Corn Rootworm Larvae (Western, Northern, Southern, Mexican) Cutworm spp. Seedcorn Maggot Seedcorn Beetle Lesser Cornstalk Borer White Grub spp. Wireworm spp. Red Imported Fire Ant <sup>1</sup>	0.005 lb a.i. per 1000 ft of row <sup>2</sup>	0.66 fl oz per 1000 ft of row <sup>2</sup>	<b>Banded Applications:</b> 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. <b>In-Furrow Applications:</b> 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.			
	<b><sup>2</sup>lbs. a.i. and fl. oz./A. of Silencer applied at 0.66 fl. oz./1000 ft. of row for various row spacings:</b>						
	<b>Row Spacing</b>	<b>40"</b>	<b>38"</b>	<b>36"</b>	<b>34"</b>	<b>32"</b>	<b>30"</b>
	Linear Ft. per acre	13,068	13,756	14,520	15,374	16,335	17,424
	Lbs. a.i. per acre	0.067	0.07	0.075	0.079	0.084	0.09
	Fl. oz. per acre	8.6	9.1	9.6	10.1	10.8	11.5
<ul style="list-style-type: none"> <li>Do not harvest or graze livestock or cut treated crops for feed within 21 days of at-plant application.</li> <li>Do not apply more than 0.09 lb. a.i. (0.72 pt.) per acre per crop at-plant.</li> <li>Do not apply more than 0.12 lb. a.i. per acre per crop from at-plant and foliar applications for field corn, popcorn, and seed corn. For sweet corn, do not apply more than 0.48 lb. a.i. per acre per crop from at-plant and foliar applications.</li> </ul>							

CROP	TARGET PESTS	RATE		REMARKS
		lb. a.i./A	fl oz/A	
<b>CEREAL GRAINS:</b> <b>Corn</b> <b>(Foliar):</b> Field Corn Popcorn Seed Corn	Corn Earworm <sup>1</sup> Cutworm spp. Green Cloverworm Meadow Spittlebug Western Bean Cutworm <sup>1</sup>	0.015-0.025	1.92-3.20	<b>Ground application:</b> Apply in sufficient spray volume to obtain full coverage of the foliage or target area. <b>Air application:</b> Apply in a minimum of 2 gals. per acre or sufficient spray volume to obtain full coverage of the foliage or target area. Make applications when pests appear and repeat applications as necessary, usually at intervals of 7 or more days. Apply in sufficient volume to ensure sufficient coverage of foliage.
	Armyworm <sup>2</sup> Bean Leaf Beetle Bird Cherry-Oat Aphid <sup>3</sup> Cereal Leaf Beetle Corn Leaf Aphid <sup>3</sup> English Grain Aphid <sup>3</sup>	0.02-0.03	2.56-3.84	

CROP	TARGET PESTS	RATE		REMARKS
		lb. a.i./A	fl oz/A	
<b>CEREAL GRAINS:</b> <b>Corn (Foliar):</b> Field Corn Popcorn Seed Corn	European Corn Borer <sup>1</sup> Fall Armyworm <sup>2</sup> Flea Beetle spp. Grasshopper spp. Hop Vine Borer <sup>1</sup> Japanese Beetle (Adult) Lesser Cornstalk Borer Mexican Corn Rootworm Beetle (Adult) Northern Corn Rootworm Beetle (Adult) Sap Beetle (Adult) Seedcorn Beetle Southern Corn Rootworm Beetle (Adult) Southwestern Corn Borer <sup>1</sup> Stalk Borer <sup>1</sup> Stink Bug spp. Tobacco Budworm <sup>1,4</sup> Webworm spp. Western Corn Rootworm Beetle(Adult) Yellow-striped Armyworm <sup>2</sup>	0.02-0.03	2.56-3.84	<b>Chinch bug control:</b> 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. Silencer may only suppress heavy infestations and/or subsequent migrations. <u>Adult corn rootworm beetles (<i>Diabrotica</i> species):</u> Use a minimum of 3.84 fl. oz. per acre (0.03 lb. a.i. per acre) as part of an aerial-applied corn rootworm control program. <sup>1</sup> For control before the larva bores into the plant stalk or ear. <sup>2</sup> For control of first and second instar only. <sup>3</sup> Suppression only. <sup>4</sup> See resistance statement under <b>GENERAL INFORMATION.</b>
	Beet Armyworm <sup>4</sup> Chinch Bug Green Bug <sup>3,4</sup> Southern Corn Leaf Beetle <sup>3</sup> Rice Stalk Borer <sup>1</sup> Mexican Rice Borer <sup>1</sup> Sugarcane Borer <sup>1</sup>	0.03	3.84	
<ul style="list-style-type: none"> <li>Do not apply within 21 days of harvest.</li> <li>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.</li> <li>Do not feed treated corn fodder or silage to meat or dairy animals within 21 days after last treatment.</li> <li>Do not apply more than 0.12 lb. a.i. (0.96 pt.) per acre per crop from at-plant and foliar applications.</li> <li>Do not apply more than 0.06 lb. a.i. (0.48 pt.) after silk initiation.</li> <li>Do not apply more than 0.03 lb. a.i. (0.24 pt.) after corn has reached the milk stage (yellow kernels with milky fluid)</li> </ul>				

CROP	TARGET PESTS	RATE		REMARKS
		lb. a.i./A	fl oz/A	
<b>CEREAL GRAINS:</b> <b>Corn (Foliar):</b> Sweet Corn	Aphid spp. <sup>2,3</sup> Armyworm <sup>1</sup> Aster Leafhopper Beet Armyworm <sup>1,3</sup> Chinch Bug Common Cornstalk Borer Corn Earworm Cutworm spp. European Corn Borer Fall Armyworm <sup>1</sup> Flea Beetle spp. Grasshopper spp. Japanese Beetle (Adult) Mexican Corn Rootworm Beetle (Adult) Northern Corn Rootworm Beetle (Adult) Sap Beetle (Adult) Southern Armyworm <sup>1</sup> Southern Corn Rootworm Beetle (Adult) Southwestern Corn Borer Spider Mite spp. <sup>2</sup> Stink Bug spp. Tarnished Plant Bug Webworm spp. Western Bean Cutworm Western Corn Rootworm Beetle (Adult) Yellow-Striped Armyworm <sup>1</sup>	0.02-0.03	2.56-3.84	<b>Ground application:</b> Apply in sufficient spray volume to obtain full coverage of the foliage or target area. <b>Air application:</b> Apply in a minimum of 2 gals. per acre or sufficient spray volume to obtain full coverage of the foliage or target area. Make applications when pests appear and repeat applications as necessary, usually at intervals of 4 or more days and before insects enter the stalk or ear. Apply in sufficient volume to ensure sufficient coverage of foliage and ears (if present). <u>Adult corn rootworm beetles (<i>Diabrotica</i> species):</u> Use a minimum of 3.2 fl. oz. per acre (0.025 lb. a.i. per acre) as part of an aerial-applied corn rootworm control program. <sup>1</sup> For control of first and second instar only. <sup>2</sup> Suppression only. <sup>3</sup> See resistance statement under <b>GENERAL INFORMATION.</b>
	Corn Silkfly (Adult) <sup>2</sup>	0.03	3.84	
<ul style="list-style-type: none"> <li>Do not apply within 1 day of harvest.</li> <li>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.</li> <li>Do not feed treated corn fodder or silage to meat or dairy animals within 21 days after last treatment.</li> <li>Do not apply more than 0.48 lb. a.i. (3.84 pts.) per acre per crop from at plant and foliar applications.</li> </ul>				

CROP	TARGET PESTS	RATE		REMARKS
		lb. a.i./A	fl oz/A	
<b>CEREAL GRAINS:</b> Rice Wild Rice	Bird Cherry-Oat Aphid Chinch Bug Fall Armyworm Grasshopper spp. Greenbug Leafhopper spp. Rice Stink Bug Rice Water Weevil (Adult) Riceworm Sharpshooter spp. True Armyworm Yellow Sugarcane Aphid Yellow-striped Armyworm	0.025-0.04	3.20-5.12	<p><b>Ground application:</b> Apply in sufficient spray volume to obtain full coverage of the foliage or target area.</p> <p><b>Air application:</b> Mixers/loaders supporting aerial applications to wild rice at a rate of 0.04 lb. a.i./A, and treating 1200 acres (or more) per day must wear dust/mist respirator. Apply in a minimum of 2 gals. per acre in sufficient spray volume to obtain full coverage of the foliage or target area. Adding 1 pint per acre of an emulsifiable crop oil will help improve coverage, reduce evaporation, and improve efficacy.</p> <p>Monitor insect populations to determine timing and frequency of applications. Scout fields at a minimum of 5 day intervals. Make applications when pests appear and repeat applications as necessary, usually at intervals of 5-7 days. Apply in sufficient volume to ensure sufficient coverage of foliage.</p> <p>Silencer can be safely used when propanil products are being used for weed control.</p> <p><b>Rice Water Weevil:</b> In dry seeded rice, make a foliar application as indicated by scouting for the presence of adults and/or feeding scars usually within 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. 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.</p> <p>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.</p>

CROP	TARGET PESTS	RATE		REMARKS
		lb. a.i./A	fl oz/A	
<b>CEREAL GRAINS:</b> Rice Wild Rice	European Corn Borer <sup>1</sup> Mexican Rice Borer <sup>1</sup> Rice Seed Midge <sup>1</sup> Rice Stalk Borer <sup>1</sup> Sugarcane Borer <sup>1</sup>	0.03-0.04	3.84-5.12	<p><b>California:</b> In addition to above directions, for control of rice water weevil in water seeded rice, Silencer may be applied at the 1- to 3-leaf growth stage with the majority at the 2-leaf growth stage.</p> <p>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.</p> <p><b>Green Bug:</b> Known to have many biotypes, Silencer may only provide suppression. If satisfactory control is not achieved, a resistant biotype may be present. Use alternate chemistry for control.</p> <p>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.</p> <p><sup>1</sup>For control before the larvae bores into the plant stalk.</p>
				<ul style="list-style-type: none"> <li>● Do not release floodwater within 7 days of an application.</li> <li>● Do not apply more than 0.12 lb. a.i. (0.96 pt.) per acre per season.</li> <li>● Do not apply more than 0.04 lb. a.i. (0.32 pt.) per acre within 21 to 27 days of harvest.</li> <li>● Do not apply within 21 days of harvest.</li> <li>● Do not use treated rice fields for the aquaculture of edible fish and crustacea.</li> <li>● Do not apply as an ultra-low volume (ULV) spray.</li> </ul>

CROP	TARGET PESTS	RATE		REMARKS
		lb. a.i./A	fl oz/A	
CEREAL GRAINS: Sorghum (Grain)	Cutworm spp. Sorghum Midge	0.015-0.02	1.92-2.56	<p><b>Ground application:</b> Apply in sufficient spray volume to obtain full coverage of the foliage or target area.</p> <p><b>Air application:</b> Apply in a minimum of 2 gals. per acre or sufficient spray volume to obtain full coverage of the foliage or target area. Make applications when pests appear and repeat applications as necessary, usually at intervals of 5 or more days. Apply in sufficient volume to ensure sufficient coverage of foliage.</p> <p>Sorghum Midge: Begin applications when 25% of the sorghum heads have emerged and are in tip bloom. Repeat applications at 5 day intervals if needed.</p> <p>Chinch Bug: 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. Silencer may only suppress heavy infestations and/or subsequent migrations.</p> <p><sup>1</sup> For control of first and second instar only.  <sup>2</sup> For control before the larva bores into the plant stalk.  <sup>3</sup> See resistance statement under <b>GENERAL INFORMATION.</b></p>
	Armyworm Beet Armyworm <sup>3</sup> Corn Earworm European Corn Borer <sup>2</sup> Fall Armyworm <sup>1</sup> Flea Beetle spp. Grasshopper spp. Lesser Cornstalk Borer <sup>2</sup> Southwestern Corn Borer <sup>2</sup> Stink Bug spp. Webworm spp. Yellow-striped Armyworm <sup>1</sup>	0.02-0.03	2.56-3.84	
	Chinch Bug Mexican Rice Borer <sup>2</sup> Rice Stalk Borer <sup>2</sup> Sugarcane Borer <sup>2</sup>	0.03	3.84	
<ul style="list-style-type: none"> <li>Do not apply within 30 days of harvest.</li> <li>Do not apply more than 0.08 lb. a.i. (0.64 pt.) per acre per season.</li> <li>Do not apply more than 0.06 lb. a.i. (0.48 pt.) per acre per season after crop emergence.</li> <li>Do not apply more than 0.02 lb. a.i. (0.16 pt.) per acre per season once crop is in soft dough stage.</li> </ul>				



CROP	TARGET PESTS	RATE		REMARKS
		lb. a.i./A	fl oz/A	
CEREAL GRAINS: Barley Buckwheat Oats Rye Triticale Wheat Wheat Hay	Army Cutworm Cutworm spp.	0.015-0.025	1.92-3.20	<p><b>Ground application:</b> Apply in sufficient spray volume to obtain full coverage of the foliage or target area.</p> <p><b>Air application:</b> Apply in a minimum of 2 gals. per acre or sufficient spray volume to obtain full coverage of the foliage or target area.</p> <p>Make applications when pests appear and repeat applications, as necessary, usually at intervals of 5 or more days. Apply in sufficient volume to ensure sufficient coverage of foliage.</p> <p><u>Chinch Bug:</u> Repeat applications at 3 to 5 day intervals if needed. Silencer may only suppress heavy infestations and/or migrations.</p> <p><u>Green Bug:</u> Known to have many biotypes, Silencer may only provide suppression. If satisfactory control is not achieved, a resistant biotype may be present. Use alternate chemistry for control.</p> <p><sup>1</sup> Best control is obtained before insects begin to roll leaves. Once wheat has started to boot, Silencer may provide suppression only. Higher rates and increased coverage will be necessary.</p> <p><sup>2</sup> Suppression only.</p> <p><sup>3</sup> See resistance statement under <b>GENERAL INFORMATION.</b></p> <p><sup>4</sup> Make applications when adults emerge.</p>
	Armyworm	0.02-0.03	2.56-3.84	
	Bird Cherry-Oat Aphid <sup>1</sup>			
	Cereal Leaf Beetle			
	English Grain Aphid <sup>1</sup>			
	Fall Armyworm			
	Flea Beetle spp.			
	Grasshopper spp.			
	Hessian fly <sup>4</sup>			
	Orange Blossom Wheat Midge			
Russian Wheat Aphid <sup>1</sup>				
Stink Bug spp.				
Yellow-striped Armyworm				
Grass Sawfly	0.025-0.03	3.20-3.84		
Chinch Bug	0.03	3.84		
Corn Leaf Aphid <sup>2</sup>				
Greenbug <sup>1,3</sup>				
Mite spp. <sup>2</sup>				
<ul style="list-style-type: none"> <li>Do not apply within 30 days of harvest.</li> <li>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 treatment. Do not feed treated straw to meat or dairy animals within 30 days after the last treatment.</li> <li>Do not apply more than 0.06 lb. a.i. (0.48 pt.) per acre per season.</li> </ul>				

CROP	TARGET PESTS	RATE		REMARKS
		lb. a.i./A	fl oz/A	
<b>COLE CROPS</b> <b>Head and stem brassica crop group including:</b> Broccoli Brussels Sprouts Cabbage Cavalo Broccolo Cauliflower Chinese Broccoli (gai lon) Chinese Cabbage (napa) Chinese Mustard Cabbage (gai choy) Kohlrabi	Alfalfa Looper Cabbage Looper Cabbage Webworm Cutworm spp. Imported Cabbageworm Southern Cabbageworm	0.015-0.025	1.92-3.20	<b>Ground application:</b> Apply in sufficient spray volume to obtain full coverage of the foliage or target area. <b>Air application:</b> Apply in a minimum of 2 gals. per acre or sufficient spray volume to obtain full coverage of the foliage or target area. Make applications when pests appear and repeat applications, as necessary, usually at intervals of 5 or more days. Apply in sufficient volume to ensure sufficient coverage of foliage. <sup>1</sup> For control of first and second instar only. <sup>2</sup> Suppression only. <sup>3</sup> See resistance statement under <b>GENERAL INFORMATION.</b>
	Aphid spp. <sup>2,3</sup> Armyworm Beet Armyworm <sup>1,3</sup> Corn Earworm Diamondback Moth <sup>3</sup> Fall Armyworm <sup>1</sup> Flea Beetle spp. Grasshopper spp. Japanese Beetle (Adult) Leafhopper spp. Meadow Spittlebug Plant Bug spp. including Lygus spp. <sup>3</sup> Spider Mite spp. <sup>2</sup> Stink Bug spp. Thrips spp. <sup>2</sup> Vegetable Weevil (Adult) Whitefly spp. <sup>2,3</sup> Yellow-striped Armyworm	0.02-0.03	2.56-3.84	
<ul style="list-style-type: none"> <li>Do not apply within 1 day of harvest.</li> <li>Do not apply more than 0.24 lb. a.i. (1.92 pts.) per acre per season.</li> </ul>				

CROP	TARGET PESTS	RATE		REMARKS
		lb. a.i./A	fl oz/A	
COTTON	Cutworm spp. Soybean Thrips Tobacco Thrips	0.015-0.02	1.92-2.56	<b>Ground application:</b> Apply in sufficient spray volume to obtain full coverage of the foliage or target area.
	Cabbage Looper Cotton Fleahopper Cotton Leafperforator Cotton Leafworm Lygus Bug spp. <sup>3</sup> Pink Bollworm Saltmarsh Caterpillar	0.02-0.03	2.56-3.84	<b>Air application:</b> Apply in sufficient spray volume to obtain full coverage of the foliage or target area. <b>ULV application:</b> Silencer may be mixed with once-refined vegetable oil and applied in a minimum of at least 1 qt. of finished spray per acre. Make applications when pests appear and repeat applications, as necessary, usually at intervals of 5 to 7 days. Apply in sufficient volume to ensure sufficient coverage of foliage.
	Bandedwing Whitefly <sup>2,3</sup> Beet Armyworm <sup>1,3</sup> Boll Weevil Brown Stink Bug Cotton Aphid <sup>2,3</sup> Cotton Bollworm European Corn Borer Fall Armyworm Green Stink Bug Southern Green Sting Bug Sweetpotato Whitefly <sup>2,3</sup> Tobacco Budworm <sup>3</sup> Two-spotted Spider Mite <sup>2</sup>	0.025-0.04	3.20-5.12	Under light bollworm/budworm infestation levels, 0.02 lb. a.i. per acre may be applied in conjunction with intense field monitoring. <u>Boll Weevil:</u> Spray on a 3- to 5-day schedule. <u>Cotton Bollworm, Tobacco Budworm:</u> Silencer also provides ovicidal control of unhatched <i>Heliothine</i> spp. eggs. <sup>1</sup> For control of first and second instar only. <sup>2</sup> Suppression only. <sup>3</sup> See resistance statement under <b>GENERAL INFORMATION.</b>
<ul style="list-style-type: none"> <li>Do not apply within 21 days of harvest.</li> <li>Do not graze livestock in treated areas.</li> <li>Do not apply more than 1.6 pts. (0.2 lb. a.i.) per acre per season.</li> <li>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. Synthetic pyrethroid products include but are not limited to Ambush<sup>®</sup> insecticide (or other permethrin insecticide), Asana<sup>®</sup> XL insecticide (or other esfenvalerate insecticide), Baythroid<sup>®</sup> emulsifiable pyrethroid insecticide (or other cyfluthrin insecticide), Capture<sup>®</sup> insecticide/miticide (or other bifenthrin insecticide), Danitol<sup>®</sup> 2.4 EC Spray insecticide/miticide (or other fenpropathrin insecticide), Fanfare<sup>®</sup> 2EC, Karate<sup>®</sup> insecticide (or other lambda-cyhalothrin insecticide), Karate<sup>®</sup> insecticide with Zeon<sup>®</sup> technology, Mustang<sup>®</sup> insecticide, and Warrior<sup>®</sup> or Warrior<sup>®</sup> insecticide with Zeon<sup>®</sup> technology (or other lambda cyhalothrin insecticide).</li> </ul>				

CROP	TARGET PESTS	RATE		REMARKS
		lb. a.i./A	fl oz/A	
<b>CUCURBIT VEGETABLES CROP GROUP</b> <b>Including:</b> Chayote (fruit) Chinese Waxgourd (Chinese preserving melon) Citron Melon Cucumber Gherkin Gourd (edible) <i>Lagenaria</i> spp. - Includes: hyotan, cucuzza <i>Luffa acutangula</i> , -Includes: hechima, Chinese okra <i>Momordica</i> spp. - Includes: balsam 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, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon, snake melon Pumpkin Squash, summer ( <i>Cucurbita pepo</i> var. <i>meloepo</i> ) - includes: crookneck squash, straightneck squash, vegetable marrow, zucchini Squash, winter ( <i>Cucurbita maxima</i> , <i>C. moschata</i> ) - includes: butternut squash, calabaza, hubbard squash ( <i>C. mixta</i> ; <i>C. pepo</i> ) - Includes: acorn squash, spaghetti squash Watermelon - includes: Hybrids and/or varieties of <i>Citrullus lanatus</i>	Armyworm spp. <sup>1</sup> Blister Beetle spp. Cabbage Looper Corn Earworm Cricket spp. Cucumber Beetle spp. (adults) Cutworm spp. Flea Beetle spp. Grasshopper spp. June Beetle spp. Leaffooted Bug Leafhopper spp. Lygus Bug spp. <sup>1</sup> 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.	0.02-0.03	2.56-3.84	<b>Ground application:</b> Apply in sufficient spray volume to obtain full coverage of the foliage or target area. When applied by ground, use a minimum of 10 gal. solution per acre. <b>Air application:</b> 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. 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 Silencer. <sup>1</sup> See resistance statement under <b>GENERAL INFORMATION.</b> <sup>2</sup> Does not include Western Flower Thrips. <sup>3</sup> Suppression only.
	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	
	<ul style="list-style-type: none"> <li>Do not apply more than 0.18 lb a.i. (1.44 pts of product) per season.</li> <li>Do not apply within 1 day of harvest.</li> </ul>			

CROP	TARGET PESTS	RATE		REMARKS
		lb. a.i./A	fl oz/A	
<b>FRUITING VEGETABLES (EXCEPT CUCURBITS) CROP GROUP Including:</b> Eggplant Ground Cherry Pepino Peppers (bell and nonbell) Tomatillo Tomato	Cabbage Looper Cutworm spp. Hornworm spp.	0.015-0.025	1.92-3.20	<b>Ground application:</b> Apply in sufficient spray volume to obtain full coverage of the foliage or target area.  <b>Air application:</b> Apply in a minimum of 2 gals. per acre or sufficient spray volume to obtain full coverage of the foliage or target area.  Make applications when pests appear and repeat applications, as necessary, usually at intervals of 5 or more days. Apply in sufficient volume to ensure sufficient coverage of foliage.  <sup>1</sup> For control of first and second instar only. <sup>2</sup> Suppression only. <sup>3</sup> See resistance statement under <b>GENERAL INFORMATION</b> . <sup>4</sup> For control before the larva bores into the plant stalk or fruit. <sup>5</sup> Does not include Western Flower Thrips.
	Aphid spp. <sup>2,3</sup> Beet Armyworm <sup>1,3</sup> Blister Beetle spp. Colorado Potato Beetle <sup>3</sup> Cucumber Beetle spp. (Adult) European Corn Borer <sup>4</sup> Fall Armyworm <sup>1</sup> Flea Beetle spp. Grasshopper spp. Japanese Beetle (Adult) Leafhopper spp. Leafminer spp. <sup>2</sup> Meadow Spittlebug Pepper Weevil (Adult) <sup>2</sup> Plant Bug spp. Southern Armyworm <sup>1</sup> Spider Mite spp. <sup>2</sup> Stalk Borer <sup>4</sup> Stink Bug spp. Thrips <sup>5</sup> Tobacco Budworm <sup>3</sup> Tomato Fruitworm Tomato Pinworm Tomato Psyllid <sup>2,3</sup> Vegetable Weevil (Adult) Whitefly spp. <sup>2,3</sup> Yellow-striped Armyworm <sup>1</sup>	0.02-0.03	2.56-3.84	
<ul style="list-style-type: none"> <li>Do not apply within 5 days of harvest.</li> <li>Do not apply more than 0.36 lb. a.i. (2.88 pts.) per acre per season.</li> </ul>				

CROP	TARGET PESTS	RATE		REMARKS
		lb. a.i./A	fl oz/A	
<b>GRASS FORAGE, FODDER, AND HAY</b> Pasture and Rangeland Grass, Grass Grown for Hay or Silage, Grass Grown for Seed	Army Cutworm Cutworm spp. Essex Skipper Range Caterpillar Striped Grass Looper	0.015-0.025	1.92-3.20	<b>Ground application:</b> Apply in sufficient spray volume to obtain full coverage of the foliage or target area. <b>Air application:</b> 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. Scout fields at a minimum of 5 day intervals. Apply in sufficient volume to ensure sufficient coverage of foliage. <u>Chinch bugs:</u> Silencer may only suppress heavy infestations and/or migrations. In this situation, a second application using an alternative chemistry may be needed. <u>Green Bug:</u> Green Bug is known to have many biotypes. Silencer may provide suppression only. In this situation, a second application using an alternative chemistry may be needed. <u>Pasture and rangeland grass:</u> 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. <u>Grass grown for seed:</u> Straw and mature seed (seed screenings) may be used as feed 7 days after the last application. <sup>1</sup> Best control is obtained before insects begin to roll leaves. <sup>2</sup> See resistance statement under <b>GENERAL INFORMATION</b> . <sup>3</sup> Suppression only.
	Beet Armyworm Billbug spp. <sup>3</sup> Bird Cherry-Oat Aphid <sup>1</sup> Black Grass Bug Black Turfgrass Beetle (Adult) Blue Stem Midge Cereal Leaf Beetle Chinch Bug Crane Fly spp. Cricket spp. English Grain Aphid <sup>1</sup> Fall Armyworm Flea Beetle spp. Grass Mealybug Grass Sawfly (Adult) Grasshopper spp. Green June Beetle (Adult) Greenbug <sup>1,2</sup> Japanese Beetle (Adult) Katydid spp. Leafhopper spp. Mite sp. Russian Wheat Aphid <sup>1</sup> Southern Armyworm Spittlebug spp. Stink Bug spp. Sugarcane Aphid Thrips spp.	0.02-0.03	2.56-3.84	

CROP	TARGET PESTS	RATE		REMARKS
		lb. a.i./A	fl oz/A	
<b>GRASS FORAGE, FODDER, AND HAY</b> Pasture and Rangeland Grass, Grass Grown for Hay or Silage, Grass Grown for Seed	Tick spp. True Armyworm Webworm spp. Yellowstriped Armyworm	0.02-0.03	2.56-3.84	see previous page
	<ul style="list-style-type: none"> <li>Do not apply more than 0.03 lb. a.i. (0.24 pts. of product) per acre per cutting for pastures, 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.</li> <li>Do not apply more than 0.09 lb. a.i. (0.72 pts. of product) per acre per season.</li> </ul>			

CROP	TARGET PESTS	RATE		REMARKS
		lb. a.i./A	fl oz/A	
<b>LEGUME VEGETABLES (SUCCULENT OR DRIED) CROP GROUP</b> <b>Including but limited to: (BEANS AND PEAS) Edible Podded (only)</b> <i>Canavalia gladiata</i> -sword bean <i>Canavalia ensiformis</i> - jackbean <i>Glycine max</i> - Soybean immature seed	Cutworm spp. Green Cloverworm Imported Cabbageworm Mexican Bean Beetle Saltmarsh Caterpillar Velvetleaf Caterpillar	0.015-0.025	1.92-3.20	<b>Ground application:</b> Apply in sufficient spray volume to obtain full coverage of the foliage or target area. <b>Air application:</b> Apply in a minimum of 2 gals. per acre or sufficient spray volume to obtain full coverage of the foliage or target area. Make applications when pests appear and repeat applications, as necessary, usually at intervals of 5 or more days. Apply in sufficient volume to ensure sufficient coverage of foliage.
	Alfalfa Caterpillar Aphid spp. <sup>4</sup> Armyworm <sup>2</sup> Bean Leaf Beetle Bean Leaf skeletonizer Blister Beetle spp. Corn Earworm Corn Rootworm Beetle spp. (Adult) Cucumber Beetle spp. (Adult) Curculio and Weevil spp. <sup>1</sup> (foliage and pod feeding adults and larvae) European Corn Borer	0.02-0.03	2.56-3.84	

CROP	TARGET PESTS	RATE		REMARKS
		lb. a.i./A	fl oz/A	
<b>Edible Podded, Succulent Shelled, or Dried Shelled</b> <i>Phaseolus</i> spp. includes: black, field, kidney, lima, navy, pinto, runner, snap, tepary, and wax beans <i>Vigna</i> spp. includes: adzuki, asparagus, moth, mung, rice, urd and yardlong beans, black-eyed pea, catjang, Chinese longbean, cowpea, Crowder pea, and Southern pea <i>Pisum</i> spp. includes: dwarf, edible-pod, English, field, garden, green, snow and sugar snap peas <i>Cajanus cajan</i> -Pigeon pea <b>Succulent Shelled or Dried Shelled</b> <i>Vicia faba</i> .-broadbean (favabean) <b>Dried Shelled (only)</b> <i>Lupinus</i> spp. includes: grain, sweet, white and sweet white lupines <i>Cicer arietinum</i> -chickpea (garbanzo bean) <i>Cyamopsis tetragonoloba</i> -guar <i>Lablab purpureus</i> -Lablab bean (hyacinth bean) <i>Lens esculata</i> - Lentils	Fall Armyworm <sup>2</sup> Flea Beetle spp (Adult) Flea Hopper spp. Grasshopper spp. Japanese Beetle (Adult) Leafhopper spp. Leaf-tier spp. Looper spp. Meadow Spittlebug Painted Lady Butterfly (larva) Plant Bug spp. including Lygus spp. <sup>4</sup> Stalk Borer <sup>1</sup> Stink Bug spp. Three-cornered Alfalfa Hopper Thrips spp. <sup>4,5</sup> Tobacco Budworm <sup>4</sup> Webworm spp. Western Bean Cutworm Western Yellow-striped Armyworm <sup>2</sup> Yellow-striped Armyworm <sup>2</sup> Beet Armyworm <sup>3,4</sup> Leafminer spp. <sup>3,4</sup> Lesser Cornstalk Borer <sup>3</sup> Soybean Looper <sup>3,4</sup> Spider Mite spp. <sup>3</sup> Whitefly spp. <sup>3,4</sup>	0.02-0.03	2.56-3.84	<sup>1</sup> For control before the larva bores into the plant stalk or pods. <sup>2</sup> For control of the first and second instar only. <sup>3</sup> For suppression only. <sup>4</sup> See resistance statement under <b>GENERAL INFORMATION</b> . <sup>5</sup> Does not include Western Flower Thrips.
		0.03	3.84	
	<ul style="list-style-type: none"> <li>• For edible podded and succulent shelled legume vegetables, do not apply within 7 days of harvest.</li> <li>• For dried shelled legume vegetables, do not apply within 21 days of harvest.</li> <li>• Do not apply more than 0.12 lb. a.i. (0.96 pt.) per acre per season.</li> <li>• For succulent and dried shelled peas and beans, do not graze livestock in treated areas or harvest vines for forage or hay.</li> </ul>			



CROP	TARGET PESTS	RATE		REMARKS
		lb. a.i./A	fl oz/A	
<b>LEGUME</b> <b>VEGETABLES</b> Soybean	Bean Leaf Beetle Cabbage Looper Corn Earworm Cutworm spp. Green Cloverworm Mexican Bean Beetle Mexican Corn Rootworm Beetle (Adult) Northern Corn Rootworm Beetle (Adult) Painted Lady (Thistle) Caterpillar Potato Leafhopper Saltmarsh Caterpillar Southern Corn Rootworm Beetle (Adult) Soybean Aphid <sup>4</sup> Three-Cornered Alfalfa Hopper Thrips spp. <sup>5</sup> Velvetbean Caterpillar Western Corn Rootworm Beetle (Adult) Woollybear Caterpillar	0.015-0.025	1.92-3.20	<b>Ground application:</b> Apply in sufficient spray volume to obtain full coverage of the foliage or target area. <b>Air application:</b> Apply in a minimum of 2 gals. per acre or sufficient spray volume to obtain full coverage of the foliage or target area. Make applications when pests appear and repeat applications, as necessary, usually at intervals of 5 or more days. Apply in sufficient volume to ensure sufficient coverage of foliage. Adult corn rootworm beetles ( <i>Diabrotica</i> species): Use a minimum of 2.56 fl. oz. per acre (0.02 lb. a.i. per acre) as part of an aerial-applied corn rootworm control program.

CROP	TARGET PESTS	RATE		REMARKS
		lb. a.i./A	fl oz/A	
LEGUME VEGETABLES Soybean	Armyworm <sup>1</sup> Blister Beetle spp. European Corn Borer Fall Armyworm <sup>1</sup> Grasshopper spp. Japanese Beetle (Adult) Plant Bug spp. Silverspotted Skipper Stink Bug spp. Tobacco Budworm <sup>3</sup> Webworm spp. Yellow-striped Armyworm <sup>1</sup>	0.025-0.03	3.20-3.84	<sup>1</sup> Use higher rates for large larvae. <sup>2</sup> Suppression only. <sup>3</sup> See resistance statement under <b>GENERAL INFORMATION.</b> <sup>4</sup> Use lower rates for early season applications and/or lighter populations. <sup>5</sup> Does not include Western Flower Thrips.
	Beet Armyworm <sup>2,3</sup> Lesser Cornstalk Borer <sup>2</sup> Soybean Looper <sup>2,3</sup> Spider Mite spp. <sup>2</sup>	0.03	3.84	
<ul style="list-style-type: none"> <li>• Do not apply within 30 days of harvest.</li> <li>• Do not apply more than 0.06 lb. a.i. (0.48 pt.) per acre per season.</li> <li>• Do not graze or harvest treated soybean forage, straw, or hay for livestock feed.</li> </ul>				

CROP	TARGET PESTS	RATE		REMARKS
		lb. a.i./A	fl oz/A	
LETTUCE (HEAD AND LEAF)	Alfalfa Looper Cabbage Looper Cutworm spp. Green Cloverworm Imported Cabbageworm Saltmarsh Caterpillar	0.015-0.025	1.92-3.20	<b>Ground application:</b> Apply in sufficient spray volume to obtain full coverage of the foliage or target area. <b>Air application:</b> Apply in a minimum of 2 gals. per acre or sufficient spray volume to obtain full coverage of the foliage or target area.
	Aphid spp. <sup>2,3</sup> Armyworm Beet Armyworm <sup>1,3</sup> Corn Earworm Diamondback Moth <sup>3</sup> European Corn Borer Fall Armyworm <sup>1</sup> Flea Beetle spp. Grasshopper spp. Japanese Beetle (Adult) Leafhopper spp. Meadow Spittlebug Plant Bug spp. including Lygus spp. <sup>3</sup> Southern Armyworm Spider Mite spp. <sup>2</sup> Stink Bug spp. Tobacco Budworm <sup>3</sup> Vegetable Weevil (Adult) Whitefly spp. <sup>2,3</sup>	0.02-0.03	2.56-3.84	Make applications when pests appear and repeat applications, as necessary, usually at intervals of 5 or more days. Apply in sufficient volume to ensure sufficient coverage of foliage. <sup>1</sup> For control of first and second instar only. <sup>2</sup> Suppression only. <sup>3</sup> See resistance statement under <b>GENERAL INFORMATION.</b>
<ul style="list-style-type: none"> <li>Do not apply within 1 day of harvest.</li> <li>Do not apply more than 0.3 lb a.i. (2.4 pts) per acre per season.</li> </ul>				

CROP	TARGET PESTS	RATE		REMARKS
		lb. a.i./A	fl oz/A	
ONION (BULB) AND GARLIC	Cutworm spp. Leafminer spp. (Adult) Onion Maggot (Adult) Seedcorn Maggot (Adult)	0.015-0.025	1.92-3.20	<p><b>Ground application:</b> Apply in sufficient spray volume to obtain full coverage of the foliage or target area.</p> <p><b>Air application:</b> Apply in a minimum of 2 gals. per acre or sufficient spray volume to obtain full coverage of the foliage or target area.</p> <p>Make applications when pests appear and repeat applications, as necessary, usually at intervals of 5 or more days. Apply in sufficient volume to ensure sufficient coverage of foliage. Use the higher label rates as thrips population increases and avoid rescue situations.</p> <p>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.</p> <p><sup>1</sup>For control of the first and second instars only. <sup>2</sup>Suppression only. <sup>3</sup>See resistance statement under <b>GENERAL INFORMATION.</b></p>
	Aphid spp. <sup>2</sup> Armyworm spp. <sup>1</sup> Flower Thrips <sup>2,3</sup> Onion Thrips <sup>3</sup> Plant Bug spp. Stink Bug spp. Tobacco Thrips <sup>3</sup> Western Flower Thrips <sup>2,3</sup>	0.02-0.03	2.56-3.84	
<ul style="list-style-type: none"> <li>Do not apply within 14 days of harvest.</li> <li>Do not apply more than 0.24 lb. a.i. (1.92 pts.) per acre per season.</li> </ul>				

CROP	TARGET PESTS	RATE		REMARKS
		lb. a.i./A	fl oz/A	
PEANUT	Cutworm spp. Green Cloverworm Potato Leafhopper Red-necked Peanut Worm Threecornered Alfalfa Hopper Velvetbean Caterpillar	0.015-0.025	1.92-3.20	<p><b>Ground application:</b> Apply in sufficient spray volume to obtain full coverage of the foliage or target area.</p> <p><b>Air application:</b> Apply in a minimum of 2 gals. per acre or sufficient spray volume to obtain full coverage of the foliage or target area.</p> <p>Make applications when pests appear and repeat applications, as necessary, usually at intervals of 7 or more days. Apply in sufficient volume to ensure sufficient coverage of foliage.</p> <p><sup>1</sup>Use higher rates for large larvae.</p> <p><sup>2</sup>Suppression only.</p> <p><sup>3</sup>See resistance statement under <b>GENERAL INFORMATION.</b></p>
	Bean Leaf Beetle Corn Earworm Fall Armyworm <sup>1</sup> Grasshopper spp. Southern Corn Rootworm (Adult) Stink Bug spp. Tobacco Thrips Vegetable Weevil Whitefringed Beetle (Adult)	0.02-0.03	2.56-3.84	
	Aphid spp. <sup>2</sup> Beet Armyworm <sup>2,3</sup> Lesser Cornstalk Borer <sup>2</sup> Soybean Looper <sup>2,3</sup> Spider Mite spp. <sup>2</sup>	0.03	3.84	
	<ul style="list-style-type: none"> <li>Do not apply within 14 days of harvest.</li> <li>Do not apply more than 0.12 lb. a.i (0.96 pt.) per acre per season.</li> </ul>			

CROP	TARGET PESTS	RATE		REMARKS
		lb. a.i./A	fl oz/A	
<b>POME FRUITS</b> <b>CROP GROUP</b> <b>Including:</b> Apple Crabapple Loquat Mayhaw Oriental Pear Pear Quince	Apple Aphid Apple Maggot (Adult) Cherry Fruit Fly spp. (Adult) Codling Moth Green Fruitworm Japanese Beetle Leafhopper spp. Leafroller spp. Lesser Appleworm Omnivorous leafroller Orange Tortrix Oriental Fruit Moth Pear Psylla <sup>1</sup> Pear Sawfly Periodical Cicada Plant Bug spp. Plum Curculio Rosy Apple Aphid San Jose Scale (fruit infestations only) Spirea Aphid <sup>1</sup> Stink Bug spp. Tent Caterpillar spp. Tentiform Leaf Miner spp. Tree Borer spp. Tufted Apple Budworm Webworm spp.	0.02-0.04	2.56-5.12	<b>Ground application:</b> Apply in sufficient spray volume to obtain full coverage of the foliage or target area. <b>Air application:</b> Apply in a minimum of 5 gals. per acre or sufficient spray volume to obtain full coverage of the foliage or target area. Make applications when pests appear and repeat applications, as necessary, usually at intervals of 5 or more days. Apply in sufficient volume to ensure sufficient coverage of foliage. <sup>1</sup> Suppression only.
<ul style="list-style-type: none"> <li>• Do not apply within 21 days of harvest.</li> <li>• Do not apply more than 0.2 lb. a.i. (1.6 pts.) per acre per year.</li> <li>• Do not apply more than 0.16 lb. a.i. (1.28 pts.) per acre per year post bloom.</li> </ul>				

CROP	TARGET PESTS	RATE		REMARKS
		lb. a.i./A	fl oz/A	
<b>STONE FRUITS CROP GROUP Including:</b> Apricot Sweet and Tart Cherry Nectarine Peach Plum Chickasaw Plum Damson Plum Japanese Plum Plumcot Prune	American Plum Borer Apple Maggot (Adult) Black Cherry Aphid Cherry Fruit Fly spp. (Adult) Codling Moth Green Fruitworm Japanese Beetle June Beetle Leafhopper spp. Leafroller spp. Oriental Fruit Moth Peach Twig Borer Peachtree Borer spp. Pear Sawfly Periodical Cicada Plant Bug spp. Plum Curculio Rose Chafer Stink Bug spp. Tent Caterpillar spp. Thrips spp.	0.02-0.04	2.56-5.12	<b>Ground application:</b> Apply in sufficient spray volume to obtain full coverage of the foliage or target area. <b>Air application:</b> Apply in a minimum of 5 gals. per acre or sufficient spray volume to obtain full coverage of the foliage or target area. Make applications when pests appear and repeat applications, as necessary, usually at intervals of 5 or more days. Apply in sufficient volume to ensure sufficient coverage of foliage.
<ul style="list-style-type: none"> <li>Do not apply within 14 days of harvest.</li> <li>Do not apply more than 0.2 lb. a.i. (1.6 pts.) per acre per year.</li> <li>Do not apply more than 0.16 lb. a.i. (1.28 pts.) per acre per year post bloom.</li> </ul>				

CROP	TARGET PESTS	RATE		REMARKS
		lb. a.i./A	fl oz/A	
SUGARCANE	Mexican Rice Borer <sup>1</sup> Pygmy Mole Cricket Rice Stalk Borer <sup>1</sup> Sugarcane Aphid <sup>3</sup> Sugarcane Beetle (Adult) <sup>2</sup> Sugarcane Borer <sup>1</sup> Western Indian Crane fly Yellow Sugarcane Aphid <sup>3</sup>	0.025-0.04	3.20-5.12	<p><b>Ground application:</b> Apply in sufficient spray volume to obtain full coverage of the foliage or target area.</p> <p><b>Air application:</b> Apply in a minimum of 2 gals. per acre or sufficient spray volume to obtain full coverage of the foliage or target area. Make applications when pests appear and repeat applications, as necessary, usually at intervals of 7 or more days. Apply in sufficient volume to ensure sufficient coverage of foliage.</p> <p><sup>1</sup>For control before the larva bores into the plant stalk.</p> <p><sup>2</sup>Suppression only of beetles active above ground.</p> <p><sup>3</sup>See resistance statement under <b>GENERAL INFORMATION.</b></p>
	<ul style="list-style-type: none"> <li>Do not apply within 21 days of harvest.</li> <li>Do not apply more than 0.16 lb. a.i. (1.28 pts.) per acre per season.</li> </ul>			



CROP	TARGET PESTS	RATE		REMARKS	
		lb. a.i./A	fl oz/A		
SUNFLOWER	Cutworm spp. Sunflower Beetle	0.015-0.025	1.92-3.20	<p><b>Ground application:</b> Apply in sufficient spray volume to obtain full coverage of the foliage or target area.</p> <p><b>Air application:</b> Apply in a minimum of 2 gals. per acre or sufficient spray volume to obtain full coverage of the foliage or target area.</p> <p>Make applications when pests appear and repeat applications, as necessary, usually at intervals of 5 or more days. Apply in sufficient volume to ensure sufficient coverage of foliage.</p> <p><sup>1</sup>For control of first and second instar only.</p> <p><sup>2</sup>Suppression only.</p> <p><sup>3</sup>See resistance statement under <b>GENERAL INFORMATION.</b></p>	
	Banded Sunflower Moth Fall Armyworm <sup>1</sup> Grasshopper spp. Head-Clipper Weevil (Adult) Japanese Beetle (Adult) Leafhopper spp. Meadow Spittlebug Painted Lady (Thistle) Caterpillar Seed Weevil (Adult) Spotted Cabbage Looper Stem Weevil (Adult) Stink Bug spp. Sunflower Maggot (Adult) Sunflower Moth Woollybear Caterpillar	0.02-0.03	2.56-3.84		
	Beet Armyworm <sup>2,3</sup> Spider Mite spp. <sup>2</sup>	0.03	3.84		
	<ul style="list-style-type: none"> <li>Do not apply within 45 days of harvest.</li> <li>Do not apply more than 0.12 lb. a.i. (0.96 pt.) per acre per season. Do not apply more than 0.09 lb. a.i. (0.72 pt.) per acre per season after bloom initiation.</li> <li>Do not apply as an ultra-low volume (ULV) spray.</li> </ul>				

CROP	TARGET PESTS	RATE		REMARKS
		lb. a.i./A	fl oz/A	
TOBACCO	Armyworm spp. <sup>1</sup>	0.015-0.03	1.92-3.84	<p><b>Ground application:</b> Apply in sufficient spray volume to obtain full coverage of the foliage or target area.</p> <p><b>Air application:</b> Apply in a minimum of 2 gals. per acre or sufficient spray volume to obtain full coverage of the foliage or target area.</p> <p>Make applications when pests appear and repeat applications, as necessary, usually at intervals of 7 or more days. Apply in sufficient volume to ensure sufficient coverage of foliage.</p> <p><sup>1</sup>For control of first and second instar only.</p> <p><sup>2</sup>Suppression only.</p> <p><sup>3</sup>See resistance statement under <b>GENERAL INFORMATION</b>.</p>
	Blister Beetle spp.			
	Cabbage Looper			
	Corn Earworm			
	Cucumber Beetle spp. (Adult)			
	Cutworm spp.			
	Grasshopper spp.			
	Japanese Beetle (Adult)			
	Katydid spp.			
	Plant Bug spp. <sup>3</sup>			
	Potato Tuberworm			
	Salt Marsh Caterpillar			
	Stinkbug spp.			
	Tobacco Aphid spp. <sup>2,3</sup>			
	Tobacco Budworm <sup>2</sup>			
	Tobacco Flea Beetle (Adult)			
	Tobacco Hornworm			
Tobacco Thrips spp. <sup>2</sup>				
Tomato Hornworm				
Tree Cricket spp.				
Vegetable Weevil (Adult)				
Webworm spp.				
<ul style="list-style-type: none"> <li>• Do not apply within 40 days of harvest.</li> <li>• Do not apply more than 0.09 lb. a.i. (0.72 pt.) per acre per year.</li> </ul>				

CROP	TARGET PESTS	RATE		REMARKS
		lb. a.i./A	fl oz/A	
<b>TREE NUTS CROP GROUP Including:</b> Almond Beech Nut Brazil Nut Butternut Cashew Chestnut Chinquapin Filbert (Hazelnut) Hickory Nut Macadamia Nut (Bush Nut) Pistachio Walnut, Black Walnut, English (Persian)	Ants Chinch Bug Codling Moth Filbertworm Leaffooted Bug Leafroller spp. Navel Orangeworm Peach Twig Borer Plant Bug spp. Stink Bug spp. Walnut Aphid Walnut Husk Fly spp. (Adult)	0.02-0.04	2.56-5.12	<b>Ground application:</b> Apply in or sufficient spray volume to obtain full coverage of the foliage or target area. <b>Air application:</b> Apply in a minimum of 5 gals. per acre or sufficient spray volume to obtain full coverage of the foliage or target area. Make applications when pests appear and repeat applications, as necessary, usually at intervals of 5 or more days. Apply in sufficient volume to ensure sufficient coverage of foliage.
Pecan	Hickory Shuckworm Pecan Casebearer spp. Pecan Weevil Pecan Aphid spp. Pecan Spittlebug Stink bug spp. Pecan Phylloxera spp.	0.02-0.04	2.56-5.12	
<ul style="list-style-type: none"> <li>Do not apply within 14 days of harvest.</li> <li>Do not apply more than 0.16 lb. a.i. (1.28 pts.) per acre per year.</li> <li>Do not apply more than 0.12 lb. a.i. (0.96 pt.) per acre per year post bloom.</li> </ul>				

CROP	TARGET PESTS	RATE		REMARKS
		lb. a.i./A	fl oz/A	
<b>TUBEROUS AND CORM VEGETABLES CROP GROUP Including:</b> Arracacha Arrowroot Artichoke (Chinese and Jerusalem only) Canna (edible) Cassava (bitter and sweet) Chayote (root) Chufa Dasheen Ginger Leren Potato Sweet Potato Tanier Turmeric Yam (bean and true)	Cutworm spp. Leafhopper spp. Saltmarsh Caterpillar Sweet Potato Hornworm Woollybear Caterpillar spp.	0.015-0.025	1.92-3.20	<b>Ground application:</b> Apply in sufficient spray volume to obtain full coverage of the foliage or target area. <b>Air application:</b> Apply in a minimum of 2 gals. per acre or sufficient spray volume to obtain full coverage of the foliage or target area. Make applications when pests appear. If needed, make repeat applications after at least 7 or more days. Apply in sufficient volume to ensure sufficient coverage of foliage. Insects that bore or tunnel into leaves, vines, stems, tubers or corms must be controlled before penetration. Only exposed insects (larvae and/or adults) can be controlled with foliar applications of Silencer. <sup>1</sup> See resistance statement under <b>GENERAL INFORMATION.</b> <sup>2</sup> Does not include Western Flower Thrips. <sup>3</sup> Suppression only.
	Aphid species <sup>1</sup> Armyworm spp. <sup>1</sup> Blister Beetle spp. Colorado Potato Beetle <sup>1</sup> Corn Earworm Cricket spp. Cucumber Beetle spp. (adults) European Corn Borer Flea Beetle spp. (adults) Grasshopper spp. Looper spp. <sup>1</sup> Lygus Bug spp. <sup>1</sup> Plant Bug spp. Potato Psyllid Potato Tuberworm Stink Bug spp. Sweet Potato Leaf Beetle (adults) Sweet Potato Vine Borer Thrips spp. <sup>1,2</sup> Tortoise Beetle spp. Webworm spp. Weevil spp. (adults)	0.02-0.03	2.56-3.84	
	Leafminer spp. <sup>1,3</sup> Whitefly spp. <sup>1,3</sup> Spider Mite spp. <sup>3</sup>	0.03	3.84	
<ul style="list-style-type: none"> <li>Do not apply more than 0.12 lb. a.i. (0.96 pt.) per acre per year per season.</li> <li>Do not apply within 7 days of harvest.</li> </ul>				

CROP	TARGET PESTS	RATE		REMARKS
		lb. a.i./A	fl oz/A	
<b>CONIFER AND DECIDUOUS TREES:</b> Plantations and Nurseries	Bagworm Balsam Twig Aphid Birch Leafminer Black Pine Weevil Elm Leaf Beetle European Elm Bark Beetle Gypsy Moth Japanese Beetle June Beetle spp. Leaf Beetle spp. Leafroller spp. May Beetle spp. Mealybug spp. <sup>1</sup> Pales Weevil Pine Chafer Pine Colaspis Beetle Pine Conelet Bug Pine Leaf Chermid Balsam Wooly Aphid Pine Needle Scale Pine Sawfly spp. Pine Tip Moth spp. Pine Tortoise Scale Pine Weevil spp. Poplar Aphid spp. Sawfly spp. Spittlebug spp. Spruce Budworm Tent Caterpillar spp. Tussock Moth spp. Webworm spp.	0.02-0.04	2.56-5.12	<b>Ground application:</b> Apply in sufficient spray volume to obtain full coverage of the foliage or target area. <b>Air application:</b> Apply in a minimum of 2 gals. per acre or sufficient spray volume to obtain full coverage of the foliage or target area. Make applications when pests appear. Apply in sufficient volume to ensure sufficient coverage of foliage. To control exposed foliage, flower, cone, seed, and bark feeding insects, apply as required by scouting. <sup>1</sup> Suppression only.
	<ul style="list-style-type: none"> <li>Do not apply more than 0.24 lb. a.i. (1.92 pts.) per acre per year.</li> </ul>			

CROP	TARGET PESTS	RATE		REMARKS
		lb. a.i./A	fl oz/A	
<b>CONIFER AND DECIDUOUS TREES:</b> Seed Orchards	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. For low volume sprayers, dilute 20 fl. oz. per 100 gals. of water and apply 100 gals. of finished spray per acre. For aerial applications, apply 15 fl. oz./A in a minimum of 10 gals. finished spray per acre.

CROP	TARGET PESTS	RATE		REMARKS
		lb. a.i./A	fl oz/A	
<b>NON-CROPLAND (Excluding Public Land)</b>	See specific Crop Outlets on this Silencer label for target pests and rates.	See Crop Outlets	See Crop Outlets	Spray non-cropland adjacent to agricultural areas to control migratory insects which may threaten crops. Follow general use directions, rates, and spray recommendation found elsewhere on this label for the adjacent crop out and target pests. Use highest labeled rates for dense/large foliage, high insect populations, and larger larval stages. Repeat as necessary to maintain control.

#### RATE CONVERSION CHART

lb. a.i./A	fl. oz./A	pts./A	treated acres/gal.
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.

**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. **DO NOT ALLOW PRODUCT TO FREEZE.**

**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 DISPOSAL:**

**Nonrefillable Container (five gallons or less):** Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. 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 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

**Nonrefillable Container (greater than five gallons):** Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

**Refillable Container:** Refillable container. Refill this container with lambda-cyhalothrin only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

## LIMITATION OF WARRANTY AND LIABILITY

Read the entire directions for use, conditions of warranties and limitations of liability before using this product. If terms are not acceptable, return the unopened product container at once.

By using this product, user or buyer accepts the following **CONDITIONS, DISCLAIMER OF WARRANTIES and LIMITATIONS OF LIABILITY**.

**CONDITIONS:** The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of ADAMA. All such risks shall be assumed by the user or buyer.

**DISCLAIMER OF WARRANTIES:** To the extent consistent with applicable law, ADAMA makes no other warranties, express or implied, of merchantability or of fitness for a particular purpose or otherwise, that extend beyond the statements made on this label. No agent of ADAMA is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. To the extent consistent with applicable law, ADAMA disclaims any liability whatsoever for special, incidental or consequential damages resulting from the use or handling of this product.

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Manufactured for:

Makhteshim Agan of North America, Inc.

(d/b/a ADAMA)

3120 Highwoods Blvd., Suite 100

Raleigh, NC 27604



# RESTRICTED USE PESTICIDE

DUO TO TOXICITY TO FISH AND AQUATIC ORGANISMS

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

## Silencer®

### ACTIVE INGREDIENT:

Lambda-cyhalothrin; [1a(S\*),3a(Z)]-(±)-cyano-(3-phenoxyphenyl)methyl-3-(2-chloro-3,3,3-trifluoro-1-propenyl)-2,2-dimethylcyclopropanecarboxylate: ... 12.7%

**OTHER INGREDIENTS:** ..... 87.3%

**TOTAL:** ..... 100.0%

Contains 1 pound of active ingredient per gallon.

Contains Petroleum Distillate.

EPA Reg. No. 66222-104

EPA Est. No. 37429-GA-001<sup>PI</sup>; 37429-GA-002<sup>PO</sup>

Letter(s) in lot number correspond(s) to superscript in EPA Est. No.

### SHAKE WELL BEFORE USING

## 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 this label, find someone to explain it to you in detail.)

### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**WARNING:** May be fatal if swallowed. Causes substantial but temporary eye injury. Harmful if absorbed through skin or inhaled. Avoid breathing vapor or spray mist. Do not get in eyes, on skin, or on clothing. Wear appropriate protective clothing and eyewear as specified in the Personal Protective Equipment (PPE) section of this label. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

**How can we help? 1-866-406-6262**

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INSECTICIDE  
ADAMA  
ESSENTIALS

GROUP 3 INSECTICIDE

### 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 for 15 - 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor immediately for treatment advice.

**IF ON SKIN OR CLOTHING:** Take off contaminated clothing. Rinse skin immediately with plenty of soap and 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 mouth-to-mouth, if possible. Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact Prosur at 1-877-250-9291 for emergency medical treatment information. **NOTE TO PHYSICIAN:** Contains Petroleum Distillate. Vomiting may cause aspiration pneumonia. FOR 24-HOUR EMERGENCY ASSISTANCE (SPILL, LEAK, OR FIRE), CALL INTRAC AT 1-800-535-5053.

## STORAGE AND DISPOSAL

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

**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. **DO NOT ALLOW PRODUCT TO FREEZE.**

**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 (five gallons or less): Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. 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 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

For additional Precautionary Statements, Storage and Disposal and Directions for Use, see inside of the booklet.

Net Contents  
**1 gallon**