

83222-42

6/22/2012

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U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of
Chemical Safety and
Pollution Prevention
Registration Division (H7504P)
1200 Pennsylvania Avenue N.W.
Washington D.C. 20460

NOTICE OF PESTICIDE

Registration
 Reregistration

(under FIFRA as amended)

EPA Reg Number

83222-42

Date of Issuance

JUN 22 2012

Term of Issuance

Conditional

Name of Pesticide Product

LAMBDA-CY AG

Name and Address of Registrant (include ZIP Code)

Biologic, Inc
Direct AG Source, LLC
115 Obtuse Hill Road
Brookfield CT 06804

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

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

This product is conditionally registered in accordance with FIFRA sec 3(c)(7)(A) provided that you

1. Submit and/or cite all data required for registration of your product under FIFRA sec 3(c)(5) when the Agency requires all registrants of similar products to submit such data, and submit acceptable responses required for reregistration of your product under FIFRA section 4.

(Continued on page 2)

Signature of Approving Official

See page # 2

Mark Suarez, Product Manager (11)
Insecticide Branch, Registration Division (7504P)

Date

2 Revise the EPA Registration Number to read EPA Registration Number 83222-42

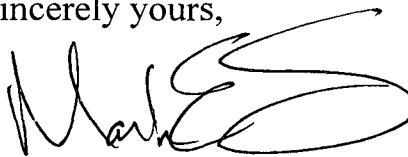
Submit two copies of the final printed label for the record

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec 6(e) Your release for shipment of the product constitutes acceptance of these conditions

If you have any questions, please contact Melody Banks on 703 305 5413 or via email at banks melody@epa gov

A stamped copy of the label is enclosed for your records

Sincerely yours,



Mark Suarez
Product Manager 10
Insecticide Branch
Registration Division 7505c

Label revised per email 22 June 201

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

GROUP 3A INSECTICIDE

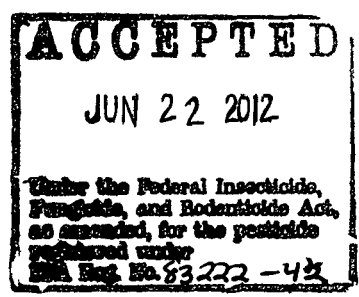
LAMBDA-CY AG

For the Control of a Variety of Insect Pests on Selected Crops

Contains the same active ingredient as Karate® Insecticide

Active Ingredient	
Lambda-cyhalothrin	11.4%
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 la etiqueta, busque a alguien para que se la explique a usted en detalle
(If you do not understand the label, find someone to explain it to you in detail)

EPA Reg No 83222-~~XX~~ 42

EPA Est No XXXXX-XX-XXX

Net Contents _____ Gallons

Manufactured For
Direct AG Source, LLC
30473 260th St
Eldora IA 50627

FIRST AID	
If swallowed	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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
Have the product container or label with you when calling a poison control center or doctor, or going for treatment For medical emergencies call ProSAR 24 hours a day at 1-877-250-9291	
Note to Physician – Contains petroleum distillate – vomiting may cause aspiration pneumonia	

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)

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 resistant category selection chart

Applicators and other handlers must wear

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material such as barrier laminate or viton ≥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/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

<p>User Safety Recommendations</p> <p>Users should</p> <ul style="list-style-type: none"> 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

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 liquid Do not use or store near heat or open flame Do not use this product in or on electrical equipment due to the possibility of shock hazard

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

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

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:

- Long sleeved shirt and long pants
- Chemical resistant gloves made of any waterproof material such as barrier laminate or viton ≥ 14 mils
- Shoes plus socks

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

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 Service, 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 airblast)

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

Buffer Zone for ULV Aerial Application

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

SPRAY DRIFT REQUIREMENTS**Wind Direction and Speed**

Only apply this product if the wind direction favors on target deposition

Do not apply when wind velocity exceeds 15 mph

Temperature Inversions

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 coarse spray nozzles (for ground and non-ULV aerial application) according to ASAE (S572) definition for standard nozzles. In condition of low humidity and high temperature applicators should use a coarser droplet size.

Additional Requirements for Ground Application

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 Application

The spray boom should be mounted on the aircraft so as to minimize drift caused by wingtip or rotor vortices. The minimum practical boom length should be used and must not exceed 75% of 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.

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.

CHEMIGATION

Sprinkler Irrigation Application

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

Resistance Management

Lambda Cy AG contains a Group 3A insecticide. Insect/mite biotypes with acquired resistance to Group 3A may eventually dominate the insect/mite population if Group 3A insecticides/acaricides are used repeatedly in the same field or in successive years as the primary method of control for targeted species. This may result in partial or total loss of control of those species by Lambda-Cy AG or other Group 3A insecticides/acaricides.

To delay insecticide resistance consider

- Avoiding the consecutive use of Lambda Cy AG or other group 3A insecticides/acaricides that have a similar target site of action, on the same insect/mite species
- Using tank-mixtures or premixes with insecticides/acaricides from a different target site of action Group as long as the involved products are all registered for the same use and have different sites of action
- Basing insecticide/acaricide use on a comprehensive IPM program

Monitoring treated insect/mite populations for loss of field efficacy

- Contacting your local extension specialist, certified crop advisors, and/or manufacturer for insecticide/acaricide resistance management and/or IPM recommendations for the specific site and resistant pest problems

Tank Mix Applications

Lambda Cy AG 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, Lambda-Cy AG 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. Observe all restrictions and precautions found on labels of any products in the tank mix.

SPECIFIC USE DIRECTIONS – AGRICULTURAL USES

Crop	Target Pests	Rate		Remarks
		lb a /A	fl oz /A	
ALAFafa AND ALFALFA GROWN FOR SEED	Alfalfa Caterpillar Army cutworm Cutworm spp Green Cloverworm Leafhopper species Looper spp Threecornered Alfalfa Hopper Velvetbean Caterpillar Webworm spp	0 015 0 025	1 92 – 3 20	Apply only to fields planted to pure stands of alfalfa Apply as required by scouting Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds Apply with ground or air equipment using sufficient water to obtain full coverage of foliage Apply in a
	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 ¹ Grape Colaspis (Adult) Grasshopper spp Green June Beetle (Adult) Green Peach Aphid ² Japanese Beetle (Adult) Meadow Spittlebug Mexican Bean Beetle Pea Aphid Pea Weevil (Adult) Plant Bug spp Including Lygus spp ³ Spotted Alfalfa Aphid Stink Bug spp Sweet Clover Weevil (Adult) Thrips spp ⁴ Western Yellow striped Armyworm Whitefringed Beetle spp (Adult) Yellow striped Armyworm	0 02 0 03	2 56 – 3 84	minimum of 2 gallons per acre by air or 10 gallons per acre by ground When foliage is dense and/or pest populations are high 5-10 gallons per acre by air or 20 gallons per acre by ground and higher use rates are recommended Use higher rates for increased residual control 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 Do not apply more than 0 03 lb a 1 (0 24 pt or 3 84 fl oz of product)/A per cutting Do not apply more than 0 12 lb a 1 (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 ¹ Use higher rates for large larvae ² Suppression only ³ See resistance statement under PRODUCT INFORMATION ⁴ Does not include Western Flower Thrips
	Beet Armyworm ^{1 3} Blotch Leafminer ³ Spider Mites ¹	0 03	3 84	

Crop	Target Pests	Rate		Remarks
		lb a i /A	fl oz /A	
CANOLA	Cutworm spp Armyworm spp Diamondback Moth Flea Beetle Cabbage Seedpod Weevil Lygus Bug Grasshoppers	0 015 0 03	1 92 3 84	Apply as required by scouting usually at intervals of 5 or more days Timing and frequency of applications should be based 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 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
	Cabbage Aphid	0 03	3 84	
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 ¹	0 005 lb a i per 1 000 ft of row ²	0 66 fl oz per 1 000 ft of row ²	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 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 09 lb a i (0 72 pt or 11 52 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 at plant 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 ¹ Suppression only

² Lbs a i and fl oz /A of Lambda Cyhalothrin applied at 0 66 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	0 067	0 07	0 075	0 079	0 084	0 09
Fl oz /A	8 6	9 1	9 6	10 1	10 8	11 5

Crop	Target Pests	Rate		Remarks
		lb a l/A	fl oz/A	
CEREAL GRAINS Corn (Foliar) Field Corn Popcorn Seed Corn	Cutworm spp Western Bean Cutworm ¹ Corn Earworm ¹ Green Cloverworm Meadow Spittlebug	0 015 0 025	1 92-3 20	Apply as required by scouting or locally prescribed corn growth stages usually at intervals of 7 or more days Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds or other locally recommended methods
	Tobacco Budworm ^{1 4} European Corn Borer ¹ Southwestern Corn Borer Stalk Borer ¹ Hop Vine Borer ¹ Armyworm ² Fall Armyworm ² Yellow striped Armyworm ² Webworm spp Flea Beetle spp Western Corn Rootworm Beetle (Adult) Northern Corn Rootworm Beetle (Adult) Southern Corn Rootworm Beetle (Adult) Mexican Corn Rootworm Beetle (Adult) Bean Leaf Beetle Cereal Leaf Beetle Japanese Beetle (Adult) Sap Beetle (Adult) Stink Bug spp Grasshopper spp Corn Leaf Aphid ³ Bird Cherry-Oat Aphid ³ English Gram Aphid ³	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 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 Lambda Cy AG may only suppress heavy infestations and/or subsequent migrations 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 3 84 fl oz/A (0 03 lb a l/A) 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 12 lb a l (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 l (0 48 pt or 7 68 fl oz of product) after silk initiation Do not apply more than 0 03 lb a (0 24 pt or 3 84 fl oz of product) af cr corn has reached the milk stage (yellow kernels with milky fluid) ¹ 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 ^{2 4} Chinch Bug Green Bug ^{3 4} Southern Corn Leaf Beetle Mexican Rice Borer ¹ Rice Stalk Borer ¹ Sugarcane Borer ¹	0 03	3 84	

Crop	Target Pests	Rate		Remarks
		lb a 1/A	fl oz /A	
CEREAL GRAINS Corn (Foliar) Sweet Corn	Corn Earworm	0 02 0 03	2 56	Apply as required by scouting or locally prescribed corn growth stages usually at intervals of 4 or more days Timing and frequency of applications should be based 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 (<i>Diabrotica</i> 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 1/A) 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 48 lb a 1 (3 84 pts or 61 44 fl oz of product)/A per season ¹ Use higher rates for large larvae ² Suppression only ³ See resistance statement under PRODUCT INFORMATION
	Fall Armyworm ¹		3 84	
	Southern Armyworm ¹			
	Beet Armyworm ^{1 3}			
	Yellow Striped Armyworm ¹			
	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)			
	Mexican Corn Rootworm Beetle (Adult)			
	Japanese Beetle (Adult)			
	Sap Beetle (Adult)			
	Flea Beetle spp			
	Tarnished Plant Bug			
	Stink Bug spp			
	Chinch Bug			
	Aster Leafhopper			
	Grasshopper spp			
	Aphid spp ^{2 3}			
	Spider Mite spp ²			
	Corn Silkfly (Adult) ²	0 03	3 84	

Crop	Target Pests	Rate		Remarks
		lb a i /A	fl oz /A	
CEREAL GRAINS Rice Wild Rice	True Armyworm Fall Armyworm Yellow striped Armyworm Rice Water Weevil (Adult) Rice Stink Bug Chinch Bug Grasshopper spp Leafhopper spp Bird Cherry Oat Aphid Greenbug Sharpshooter spp Yellow Sugarcane Aphid <u>Riceworm</u>	0 025 0 04	3 20 5 12	See additional instructions below 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
	European Corn Borer ¹ Mexican Rice Borer ¹ Rice Seed Midge ¹ Rice Stalk Borer ¹ Sugarcane Borer ¹	0 03 0 04	3 84 5 12	Do not apply as an ultra low volume (ULV) spray ¹ For control before the larvae bores into the plant stalk

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 dust mist respirator

Apply as required by scouting Timing and frequency of application should be based upon insect populations reaching locally determined economic thresholds Determine the need for repeat applications usually at intervals of 5- 7 days by scouting

Lambda Cy AG 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 Lambda Cy AG 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 levees as 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 Lambda Cy AG may only provide suppression If satisfactory control is not achieved with the first application of Lambda Cy AG 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

Crop	Target Pests	Rate		Remarks
		lb a 1/A	fl oz /A	
CEREAL GRAINS Sorghum (Grain)	Cutworm spp Sorghum Midge	0 015-0 02	1 92 2 56	<p>Apply as required by scouting, usually at intervals of 5 or more days Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds</p> <p>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</p> <p>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</p> <p>For chunch 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</p> <p>Lambda Cy AG may only suppress heavy infestations and/or subsequent migrations</p> <p>Do not apply within 30 days of harvest</p> <p>Do not apply more than 0 08 lb a 1 (0 64 pt or 10 24 fl oz of product)/A per season</p> <p>Do not apply more than 0 06 lb a 1 (0 48 pt or 7 68 fl oz of product)/A per season after crop emergence</p> <p>Do not apply more than 0 02 lb a 1 (0 16 pt or 2 56 fl oz of product)/A per season once crop is in soft dough stage</p> <p>¹ Use higher rates for large larvae only ² For control before the larva bores into the plant stalk ³See resistance statement under PRODUCT INFORMATION</p>
	Armyworm Beet Armyworm ^{1 3} Fall Armyworm ¹ Yellow striped Armyworm ¹ Corn Earworm Webworm spp European Corn Borer ² Southwestern Corn Borer ² Lesser Cornstalk Borer ² Flea Beetle spp Stink Bug spp Grasshopper spp	0 02 0 03	2 56 3 84	
	Chunch Bug Mexican Rice Borer ² Rice Stalk Borer ² Sugarcane Borer ²	0 03	3 84	

Crop	Target Pests	Rate		Remarks
		lb a 1/A	fl oz/A	
CEREAL GRAINS Barley Buckwheat Oats Rye Wheat Wheat Hay Triticale	Cutworm spp Army Cutworm	0 015 0 025	1 92-3 20	Apply as required by scouting usually at intervals of 5 or more days Timing and frequency of applications should be based 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 Lambda Cy AG may only suppress heavy infestations and/or migrations Greenbug is known to have many biotypes Lambda Cy AG may provide suppression only In this situation a second application using an alternative chemistry may be needed 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 1 (0 48 pt or 7 68 fl oz of product) /A per season ¹ Best control is obtained before insects begin to roll leaves Once wheat has started to boot Lambda-Cy AG may provide suppression only Higher rates and increased coverage will be necessary ² Suppression only ³ See resistance statement under PRODUCT INFORMATION ⁴ Make applications when adults emerge
	Armyworm	0 02-0 03	2 56 3 84	
	Fall Armyworm			
	Yellow striped Armyworm			
	Flea Beetle spp			
	Cereal Leaf Beetle			
	Stink Bug spp			
	English Grain Aphid ¹			
	Russian Wheat Aphid ¹			
	Bird Cherry Oat Aphid ¹			
Grasshopper spp				
Orange Blossom Wheat Midge				
Hessian Fly ⁴				
Grass Sawfly	0 025 0 03	3 20 3 84		
Chinch Bug Greenbug ^{1 2} Corn Leaf Aphid ² Mite Spp ²	0 03	3 84		

Crop	Target Pests	Rate		Remarks
		lb a l/A	fl oz/A	
COLE 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	0 015 0 025	1 92-3 20	Apply as required by scouting usually at intervals of 5 or more days Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds
	Diamondback Moth ³ Armyworm Beet Armyworm ^{1 3} Fall Armyworm ¹ Yellow striped Armyworm Corn Earworm Flea Beetle spp Japanese Beetle (Adult) Vegetable Weevil (Adult) Grasshopper spp Leafhopper spp Plant Bug spp including Lygus spp ³ Stink Bug spp Meadow Spittlebug Aphid spp ^{2 3} Whitefly spp ^{2 3} Thrips spp ² Spider Mite spp ²	0 02 0 03	2 56-3 84	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 Do not apply within 1 day of harvest Do not apply more than 0 24 lb a l (1 92 pts or 30 72 fl oz of product)/A per season ¹ For control of first and second instar only ² Suppression only ³ See resistance statement under PRODUCT INFORMATION

Crop	Target Pests	Rate		Remarks
		lb a i /A	fl oz /A	
COTTON	Cutworm spp Tobacco Thrips Soybean Thrips	0 015 0 02	1 92 2 56	<p>Apply as required by scouting usually at intervals of 5-7 days Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds</p> <p>Apply with ground or air equipment using sufficient water to obtain full coverage of foliage</p> <p>Applications may also be made with equipment adapted and calibrated for ULV sprays Lambda Cy AG may be mixed with once refined vegetable oil and applied in a minimum of at least 1 qt of finished spray/A</p> <p>Under light bollworm/budworm infestation levels 0 02 lb a i /A may be applied in conjunction with intense field monitoring</p> <p>For boll weevil control spray on a 3 to 5 day schedule</p> <p>When applied according to label directions for control of cotton bollworm and tobacco budworm, Lambda-Cy AG also provides ovicidal control of unhatched <i>Heliothis</i> spp eggs</p> <p>Do not apply within 21 days of harvest</p> <p>Do not graze livestock in treated areas</p> <p>Do not apply more than 0 2 lb a i (1 6 pts or 25 6 fl oz of product)/A per season</p> <p>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</p> <p>¹For control of first and second instar only</p> <p>²Suppression only</p> <p>³See resistance statement under PRODUCT INFORMATION</p>
	Lygus Bug spp ³ Pink Bollworm Cabbage Looper Cotton Leafperforator Saltmarsh Caterpillar Cotton Leafworm Cotton Fleahopper	0 02 0 03	2 56 3 84	
	Cotton Bollworm Tobacco Budworm ³ Boll Weevil Fall Armyworm Beet Armyworm ^{1 3} European Corn Borer Brown Stink Bug Green Stink Bug Southern Green Stink Bug Two spotted Spider Mite ² Cotton Aphid ^{2 3} Bandedwing Whitefly ^{2 3} Sweetpotato Whitefly ^{2 3}	0 025 0 04	3 20-5 12	

CROP	TARGET PESTS	RATE		REMARKS
		lb a 1/A	ft oz/A	
CUCURBIT VEGETABLES CROP GROUP Including 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 (C mixta C pepo) – Includes acorn squash, spaghetti squash	Armyworm spp ¹ 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 Melonworm Pickleworm Plant Bug spp Rindworm spp complex Saltmarsh Caterpillar Squash Beetle Squash Bug spp Squash Vine Borer spp Stink Bug spp Thrips spp ^{1,2} Tobacco Budworm ¹ Webworm spp	0 02 0 03	2 56 3 84	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 Monitoring of insect populations should be used to determine timing and frequency of applications Scout fields at a minimum of 5 days 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 Lambda Cy AG Do not apply more than 0.18 lb a 1 (1.44 pts or 23 fl oz of product)/A per season Do not apply within 1 day of harvest ¹ See resistance statement under Directions for Use ² Does not include Western Flower Thrips ³ Suppression only
	Aphid spp ¹ Leafminer spp ^{1,3} Spider Mite spp ³ Whitefly spp ^{1,3}	0 03	3 84	

Watermelon – Includes Hybrids and/or varieties of <i>Citrullus lanatus</i>				
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Crop	Target Pests	Rate		Remarks
		lb a i /A	fl oz /A	
FRUITING VEGETABLES Tomato and Tomatillo Peppers (bell and non bell) Eggplant Ground Cherry Pepino	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 Timing and frequency of applications should be based 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 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
	Tomato Fruitworm Tobacco Budworm ³ Tomato Pinworm Beet Armyworm ^{1 3} Southern Armyworm ¹ Yellow-striped Armyworm ¹ Fall Armyworm ¹ European Corn Borer ⁴ Leafminer spp ² Colorado Potato Beetle ³ Flea Beetle spp Grasshopper spp Leafhopper spp Aphid spp ^{2 3} Whitefly spp ^{2 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 Psyllid ^{2 3} Spider Mite spp ² Thrips ⁵ Cucumber Beetle spp (Adult)	0 02 0 03	2 56 3 84	

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

CROP	TARGET PESTS	RATE		REMARKS
		lb a i /A	fl oz /A	
GRASS FORAGE, FODDER AND HAY 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	<p>Ground application Apply in sufficient spray volume to obtain full coverage of the foliage or target area</p> <p>Air application Apply in a minimum of 2 gals per acre or sufficient spray volume to obtain full coverage or target area</p> <p>Monitoring of insect populations should be used to determine timing and frequency of applications Scout fields at a minimum of 5 day intervals</p> <p>Apply in sufficient volume to ensure sufficient coverage of foliage</p> <p>Chinch bugs Lambda Cy AG may only suppress heavy infestations and/or migrations In this situation a second application using an alternative chemistry may be needed</p> <p>Greenbug Greenbug is known to have many biotypes Lambda Cy AG may provide suppression only In this situation a second application using an alternative chemistry may be needed</p> <p>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</p> <p>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</p> <p>¹ Best control is obtained before insects begin to roll leaves ² See resistance statement under PRODUCT INFORMATION ³ Suppression only</p>
	Beet Armyworm Billbug spp ³ Bird Cherry Oat Aphid ¹ Black Grass Bug Black Turfgrass Beetle (Adult) Blue Stem Midge Cereal Leaf Beetle Chunch Bug Crane Fly spp Cricket spp English Grain Aphid ¹ Fall Armyworm Flea Beetle spp Grass Mealybug Grass Sawfly (Adult) Grasshopper spp Green June Beetle (Adult) Greenbug ^{1 2} Japanese Beetle (Adult) Katydid spp Leafhopper spp Mite spp Russian Wheat Aphid ¹ Southern Armyworm Spittlebug spp Stink Bug spp Sugarcane Aphid Thrips spp Tick spp True Armyworm Webworm spp Yellowstriped Armyworm	0 02 0 03	2 56 3 84	
<ul style="list-style-type: none"> Do not apply more than 0 03 lb a i (0 24 pts 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 pts or 11 52 fl oz of product)/A per season 				

Crop	Target Pests	Rate		Remarks
		lb a 1/A	fl oz /A	
LEGUME VEGETABLES (BEANS AND PEAS) Edible Podded (only) <i>Canavalia gladiata</i> sword bean <i>Canavalia ensiformis</i> – jackbean <i>Glycine max</i> Soybean (immature seed) Edible Podded Succulent Shelled or Dried Shelled <i>Phaseolus</i> spp includes field kidney lima, navy pinto runner snap tepary and wax beans <i>Vigna</i> spp includes adzuki asparagus moth mung rice urd and yard long 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 Succulent Shelled or Dried Shelled <i>Vicia faba</i> broadbean (favabean) Dried Shelled (only) <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	Cutworm spp Green Cloverworm Imported Cabbageworm Saltmarsh Caterpillar Velvetleaf Caterpillar Mexican Bean Beetle	0 015 0 025	1 92 3 20	Apply as required by scouting usually at intervals of 5 or more days Timing and frequency of applications should be based 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 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 1 (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 ¹ For control before the larva bores into the plant stalk or pods ² Use higher rates for large larvae ³ For suppression only ⁴ See resistance statement under PRODUCT INFORMATION ⁵ Does not include Western Flower Thrips
	Corn Earworm Painted Lady Butterfly (larva) European Corn Borer Looper spp Western Bean Cutworm Tobacco Budworm ⁴ Armyworm ² Fall Armyworm ² Yellow striped Armyworm ² Western Yellow striped Armyworm ² Bean Leafskeltonizer Webworm spp Leaf-tier spp Alfalfa Caterpillar Stalk Borer ¹ Cucumber Beetle spp (Adult) Corn Rootworm Beetle spp (Adult) Flea Beetle spp (Adult) 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 ⁴ Grasshopper spp Thrips spp ^{4,5} Aphid spp ⁴	0 02 0 03	2 56 3 84	
	Beet Armyworm ^{3 4} Soybean Looper ^{3 4} Lesser Cornstalk Borer ³ Leafminer spp ^{3 4} Whitefly spp ^{3 4} Spider Mite Spp ³	0 03	3 84	

Crop	Target Pests	Rate		Remarks
		lb a 1 /A	fl oz /A	
LEGUME VEGETABLES Soybean	Corn Earworm	0 015 0 025	1 92 3 20	Apply as required by scouting usually at intervals of 5 or more days Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds Do not graze or harvest treated soybean forage, straw or hay for livestock feed 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 1 /A) Do not apply within 30 days of harvest Do not apply more than 0 06 lb a 1 (0 48 pt)/A per season ¹ Use higher rates for large larvae ² Suppression only ³ See resistance statement under PRODUCT INFORMATION ⁴ Use lower rates for early season applications and/or lighter populations ⁵ Does not include Western Flower Thrips
	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)			
	Mexican Corn Rootworm Beetle (Adult)			
	Three Cornered Alfalfa Hopper			
	Potato Leafhopper			
	Thrips spp ⁵			
	Soybean Aphid ⁴			
	Armyworm ¹	0 025 0 03	3 20-3 84	
	Fall Armyworm ¹			
	Yellow-striped Armyworm ¹			
	Tobacco Budworm ³			
	Webworm spp			
	European Corn Borer			
	Silverspotted Skipper			
	Japanese Beetle (Adult)			
	Blister Beetle spp			
	Stink Bug spp			
	Plant Bug spp			
	Grasshopper spp			
	Beet Armyworm ^{2 3}	0 03	3 84	
	Soybean Looper ^{2 3}			
	Lesser Cornstalk Borer ²			
	Spider Mite spp ²			

Crop	Target Pests	Rate		Remarks
		lb a l /A	fl oz /A	
LETTUCE (HEAD AND LEAF)	Alfalfa Looper Cabbage Looper Imported Cabbageworm Cutworm spp Saltmarsh Caterpillar Green Cloverworm	0 015-0 025	1 92 3 20	Apply as required by scouting usually at intervals of 5 or more days Timing and frequency of applications should be based upon insect p populations reaching locally determined economic thresholds
	Diamondback Moth ³ Armyworm Beet Armyworm ^{1 3} Fall Armyworm ¹ Southern Armyworm Corn Earworm Tobacco Budworm ³ European Corn Borer Flea Beetle spp Japanese Beetle (Adult) Vegetable Weevil (Adult) Grasshopper spp Leafhopper spp Plant Bug spp including Lygus spp ³ Stink Bug spp Meadow Spittlebug Aphid spp ^{2 3} Whitefly spp ^{2 3} Spider Mite spp ²	0 02 0 03	2 56 3 84	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 Do not apply within 1 day of harvest Do not apply more than 0 3 lb a l (2 4 pts _or 38 4 fl oz of product)/A per season For control of first and second instar only ² Suppression only ³ See resistance statement under PRODUCT INFORMATION
ONION (BULB) AND GARLIC	Cutworm spp Seedcorn Maggot (Adult) Onion Maggot (Adult) Leafminer spp (Adult)	0 015-0 025	1 92 3 20	Apply as required by scouting usually at intervals of 5 or more days Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds
	Armyworm spp ¹ Onion Thrips ³ Tobacco Thrips ³ Western Flower Thrips ^{2 3} Flower Thrips ^{2 3} Aphid spp ² Plant Bug spp Stink Bug spp	0 02 0 03	2 56 3 84	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 Do not apply within 14 days of harvest Do not apply more than 0 24 lb a l (1 92 pts or 30 72 fl oz of produc)/A pe season ¹ For control of the first and second instars only ² Suppression only ³ See resistance statement under PRODUCT INFORMATION

Crop	Target Pests	Rate		Remarks
		lb a 1/A	fl oz/A	
PEANUT	Cutworm spp Green Cloverworm Velvetbean Caterpillar Red-necked Peanut Worm Potato Leafhopper	0 015 0 025	1 92-3 20	Apply as required by scouting usually at intervals of 7 or more days Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds
	Corn Earworm Fall Armyworm ¹ Bean Leaf Beetle Southern Corn Rootworm (Adult) Vegetable Weevil Whitefringed Beetle (Adult) Stink Bug spp Tobacco Thrips Grasshopper spp	0 02-0 03	2 56-3 84	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 Do not apply within 14 days of harvest Do not apply more than 0 12 lb a 1 (0 96 pt or 15 36 fl oz of product)/A per season Do not graze livestock in treated areas
	Beet Armyworm ^{2 3} Soybean Looper ^{2 3} Lesser Cornstalk Borer ² Spider Mite spp ² Aphid spp ²	0 03	3 84	Do not use treated vines or hay for animal feed ¹ Use higher rates for large larvae ² Suppression only ³ See resistance statement under PRODUCT INFORMATION
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 Psylla ¹ San Jose Scale (fruit infestations only) Orange Tortrix Omnivorous Leafroller Spirea Aphid ¹ 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 Timing and frequency of applications should be based 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 Do not apply within 21 days of harvest Do not apply more than 0 2 lb a 1 (1 6 pts or 25 6 fl oz of product)/A per year Do not apply more than 0 16 lb a 1 (1 28 pts or 20 48 fl oz of product)/A per year post bloom ¹ Suppression only

Crop	Target Pests	Rate		Remarks
		lb a 1/A	fl oz /A	
STONE FRUITS Apricot Sweet and Tart Cherry Nectarine Peach Plum Chickasaw Plum Damson Plum Japanese Plum Plumcot Prune	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 Thrips spp	0 02 0 04	2 56-5 12	Apply as required by scouting usually at intervals of 5 or more days Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds and IPM 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 Do not apply within 14 days of harvest Do not apply more than 0 2 lb a 1 (1 6 pts or 25 6 fl oz of product)/A per year Do not apply more than 0 16 lb a 1 (1 28 pts or 20 48 fl oz of product)/A per year post bloom
SUGARCANE	Sugarcane Borer ¹ Rice Stalk Borer ¹ Sugarcane Beetle (Adult) ² Yellow Sugarcane Aphid ³ Mexican Rice Borer ¹ Pygmy Mole Cricket Sugarcane Aphid ³ West Indian Crane fly	0 025 0 04	3 20 5 12	Apply as required by scouting usually at intervals of 7 or more days Timing and frequency of applications should be based 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 Do not apply within 21 days of harvest Do not apply more than 0 16 lb a 1 (1 28 pts or 20 48 fl oz of product)/A per season ¹ For control before the larva bores into the plant stalk ² Suppression only of beetles active above ground ³ See resistance statement under PRODUCT INFORMATION

Crop	Target Pests	Rate		Remarks
		lb a i/A	fl oz./A	
SUNFLOWER	Sunflower Beetle Cutworm spp	0 015 0 025	1 92-3 20	Apply as required by scouting, usually at intervals of 5 or more days. Timing and frequency of applications should be based 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. Do not apply within 45 days of harvest. <ul style="list-style-type: none"> • 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 a ultra-low volume (ULV) spray.
	Sunflower Moth Banded Sunflower Moth Fall Armyworm ¹ Woollybear Caterpillar Spotted Cabbage Looper Painted Lady (Thistle) Caterpillar Seed Weevil (Adult) Stem Weevil (Adult) Head-Clipper Weevil (Adult) Japanese Beetle (Adult) Sunflower Maggot (Adult) Leafhopper spp Meadow Spittlebug Stink Bug spp Grasshopper spp	0 02-0 03	2 56-3 84	
	Beet Armyworm ^{2,3} Spider Mite spp ²	0 03	3 84	
TOBACCO	Tobacco Budworm ² 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 ³ Stinkbug spp Tobacco Thrips spp ² Tobacco Aphid spp ^{2,3} Tobacco Hornworm Potato Tuberworm	0 015-0 03	1 92 3 84	Apply as required by scouting usually at intervals of 7 or more days. Timing and frequency of applications should be based 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. <ul style="list-style-type: none"> • 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. ¹ For control of first and second instar only. ² Suppression only. ³ See resistance statement under PRODUCT INFORMATION.

Crop	Target Pests	Rate		Remarks
		lb a 1/A	fl oz /A	
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 Timing and frequency of applications should be based 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 Do not apply within 14 days of harvest Do not apply more than 0 16 lb a 1 (1 28 pts or 20 48 fl oz of product)/A per year
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	Do not apply more than 0 12lb a 1 (0 96 pt or 15 36 fl oz of product)/A per year post bloom

CROP	TARGET PESTS	RATE		REMARKS
		lb a i /A	fl oz /A	
TUBEROUS AND CORM VEGETABLES CROP GROUP Including Arracacha Arrowroot Artichoke (Chinese and Jerusalem only) Canna (edible) Cassava (bitter and sweet) Chayote (root) Chufa Dasheen Ginger Leren Potato Sweet Potato Tamer 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	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 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 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 Lambda Cy AG 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 ¹ See resistance statement under PRODUCT INFORMATION ² Does not include Western Flower Thrips ³ Suppression only
	Aphid species ¹ Armyworm spp ¹ Blister Beetle spp Colorado Potato Beetle ¹ Corn Earworm Cricket spp Cucumber Beetle spp (Adults) European Corn Borer Flea Beetle spp (adults) Grasshopper spp Looper spp ¹ Lygus Bug spp ¹ Plant Bug spp Potato Psyllid Potato Tuberworm Stink Bug spp Sweet Potato Leaf Beetle (Adults) Sweet Potato Vine Borer Thrips spp ^{1 2} Tortoise Beetle spp Webworm spp Weevil spp (Adults)	0 02 0 03	2 56 3 84	
	Leafminer spp ^{1 3} Whitefly spp ^{1 3} Spider Mite spp ³	0 03	3 84	

NON-AGRICULTURAL USES

Crop	Target Pests	Rate		Remarks
		lb a i /A	fl oz /A	
CONIFER AND DECIDUOUS TREES Plantations Nurseries	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 Balsam Wooly Aphid Balsam Twig Aphid Birch Leafminer Black Pine Weevil Elm Leaf Beetle European Elm Bark Beetle Mealybug spp ¹ Pine Needle Scale Pine Tortoise Scale Poplar Aphid spp	0 02 0 04	2 56 5 12	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 Do not apply more than 0 24 lb a i (1 92 pts or 30 72 fl oz of product)/A per year ¹ Suppression only
CONIFER AND DECIDUOUS TREES 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/A For aerial applications apply 15 fl oz /A in a minimum of 10 gals finished spray/A Do not apply more than 0 5 lb a i (4 pts or 64 fl oz of product)/A per year
NON-CROPLAND (Excluding Public Land)	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 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
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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

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 ¼ 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 threads on closure devices

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

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

NOTICE Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded

The Directions for Use of this product must be followed carefully It is impossible to eliminate all risks inherently associated with the use of this product Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of DIRECT AG SOURCE, LLC, Inc or Seller To the extent consistent with

applicable law all such risks shall be assumed by Buyer and User, and Buyer and User agree to hold DIRECT AG SOURCE, LLC and Seller harmless for any claims relating to such factors

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