

66222-104

10/21/2005

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OCT 21 2005

Jane Rothwell
Registration Specialist
Makhteshim Agan of North America, Inc.
551 Fifth Avenue, Suite 1100
New York, N.Y. 10176

Dear Ms. Rothwell:

Subject: Amendment - PPE Corrections
Lambdacyhalothrin IEC
EPA Registration No. 66222-104
Your e-mail dated October 12, 2005

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is acceptable. Two (2) copies of the finished labeling must be submitted prior to releasing the product for shipment. A stamped copy of the label is enclosed for your records.

If you have any questions in regard to the letter please feel free to contact me at (703)305-6100.

Sincerely,

A handwritten signature in black ink, appearing to read "G. LaRocca".

George T. LaRocca
Product Manager 13
Insecticide Branch
Registration Division (7505C)

Enclosure

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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.

LAMBDA-CY 1EC

ACTIVE INGREDIENT:	% BY WT.
Lambda-cyhalothrin; [1α(S*),3α(Z)]-(±)-cyano-(3-phenoxyphenyl)methyl-3-(2-chloro-3,3,3-trifluoro-1-propenyl)-2,2-dimethylcyclopropanecarboxylate	11.4%
OTHER INGREDIENTS:	88.6%
	TOTAL 100.0%

Contains 1 pound of active ingredient per gallon
Contains Petroleum Distillate
SHAKE WELL BEFORE USING

KEEP OUT OF REACH OF CHILDREN DANGER-PELIGRO

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.)

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

Corrosive. Causes skin burns. May be fatal if swallowed or inhaled. Causes substantial but temporary eye injury. Do not get in eyes, on skin, or on clothing. Do not breathe vapor or spray mist. Harmful if absorbed through skin. ~~Do not get in eyes, on skin, or on clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.~~ Wear protective clothing, gloves, protective eyewear (goggles, face shield, or glasses), and respirator as indicated under "Personal Protective Equipment." Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove contaminated clothing and wash 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.

NET CONTENTS: GALLONS
ACCEPTED
with COMMENTS

In EPA Letter Dated: Makhteshim Agan of North America, Inc.
OCT 21 2005 4515 Falls of Neuse Road, Suite 300
Raleigh NC 27609

EPA Reg. No. 66222-104
EPA Est. No. 11678-IS-001

Under the Federal Insecticide,
Fungicide, and Rodenticide Act,
as amended, for the pesticide
registered under EPA Reg. No.
66222-104

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 E F on an EPA chemical resistance category selection chart.

Applicators and other handlers must wear:

- Coveralls over long sleeved shirt and long pants
- Chemical resistant gloves, such as barrier laminate, nitrile rubber, neoprene rubber, or Viton ≥ 14 mils
- ~~Shoes plus socks~~ Chemical resistant footwear plus socks
- Protective eyewear
- Chemical resistant headgear for overhead exposure
- Chemical resistant apron when cleaning equipment, mixing, or loading
- For exposures in enclosed areas, use a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with any R, P, or HE prefilter
- For exposures outdoors, use a NIOSH approved respirator with any R, P, or HE filter

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

User 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, or 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 over long sleeved shirt and long pants
- Chemical resistant gloves of barrier laminate, nitrile rubber, neoprene rubber, or Viton ≥14 mils
- ~~Socks and~~ Chemical resistant footwear plus socks
- Protective eyewear
- ~~Chemical resistant apron (when mixing and loading or when cleaning equipment)~~
- Chemical resistant headgear for overhead exposure

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

GENERAL 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 gals. per acre by air or 10 gals. 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 1EC may be applied before, during, or after planting. For soil incorporated applications, use higher rates for improved control.

RESISTANCE

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

Observe the following precautions when spraying in the vicinity of aquatic areas such as lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries, and commercial fish farm ponds.

- Do not apply by ground within 25 feet or by air within 150 feet of lakes, reservoirs, rivers, permanent streams, marshes, pot holes or natural ponds, estuaries, and commercial fish farm ponds. Increase the buffer zone to 450 feet when ultra-low volume (ULV) application is made.
- All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers.
- For aerial applications, the spray boom should be mounted on the aircraft so as to minimize drift caused by wing tip vortices. The minimum practical boom length should be used and must not exceed 75% of wing span or rotor diameter.
- Use the largest droplet size consistent with good pest control. Formation of very small droplets may be minimized by appropriate nozzle selection, by orienting nozzles away from the air stream as much as possible, and by avoiding excessive spray boom pressure.
- Spray should be released at the lowest height consistent with pest control and flight safety. Applications more than 10 feet above the crop canopy should be avoided.
- Make aerial or ground applications when the wind velocity favors on-target product deposition (approximately 3-10 mph). Do not apply when wind velocity exceeds 15 mph. Avoid applications when wind gusts approach 15 mph.
- Risk of exposure to aquatic areas can be reduced by avoiding applications when wind direction is toward the aquatic area.
- Do not cultivate within 10 feet of the aquatic area so as to allow growth of a vegetative filter strip.
- Low humidity and high temperatures increase the evaporation rate of spray droplets and therefore the likelihood of increased spray drift to aquatic areas. Avoid spraying during conditions of low humidity and/or high temperature.
- Do not make aerial or ground applications during 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.

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 feet vegetated non-cropped buffer strip for runoff protection would be part of the larger 150 foot buffer strip (or 450 feet buffer strip for ULV application) required for spray drift.

TANK MIX APPLICATION

When tank mixing with any other agricultural product, always add Lambda-Cy 1EC last. Fill the tank with one half to two thirds volume of the mixing diluent. Make sure all other products are fully dispersed in the mixing diluent before adding the recommended rate of Lambda-Cy 1EC to the tank. Add the remainder of the mixing diluent volume. It is recommended that mixing and spray equipment have continuous agitation for best results. Follow the precautions and limitations of the most restricted product in the tank mixture.

While Lambda-Cy 1EC has good flexibility for tank mixing with other agricultural products, a jar test for physical compatibility is recommended for untried mixtures using proper ratios and mixing sequences of all ingredients to be included in the mixture.

Lambda-Cy 1EC is an aqueous based formulation. It is recommended that no type of non-emulsifiable oils be used in combination with Lambda-Cy 1EC. 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 Sunflower Oils (MSO) containing a minimum of 17% emulsifier.

Adjuvants other than NIS or COC may be used providing the product meets the following criteria:

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 Lambda-Cy 1EC on the target crop through proven field trials and through university and extension recommendations.

In addition, the following may be used as diluents:

- Crop Oil Concentrate
- Methylated Sunflower Oils
- Urea-Ammonium Nitrate

It is recommended that the following not be used in combination with Lambda-Cy 1EC as diluents or adjuvants:

- Non-emulsifiable Oils
- Diesel Fuel
- Straight Mineral Oil

CHEMIGATION

Sprinkler Irrigation Application

Apply Lambda-Cy 1EC 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 1EC 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 recommended rate of Lambda-Cy 1EC 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 recommended rate of Lambda-Cy 1EC 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 1EC 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 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.
- B. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.
- C. If you have questions about calibration, you should contact state extension service specialist, 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.

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- F. 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.
- 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. Do not apply when wind speed favors drift beyond the area intended for treatment.
- M. Do not apply through chemigation systems connected to public water systems.

SPECIFIC USE DIRECTIONS- AGRICULTURAL USES

CROP	TARGET PESTS	RATE		REMARKS
		lb. a./A	fl. oz./A	
ALFALFA AND ALFALFA GROWN FOR SEED	Alfalfa Caterpillar Cutworm spp. Green Cloverworm Looper spp. Velvetbean Caterpillar Webworm spp. Leafhopper spp. Threecornered Alfalfa Hopper	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 minimum of 2 gals./A by air or 10 gals./A by ground. 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. 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.ai (0.24 pts./A) per cutting. Do not apply more than 0.12 lb. ai. (0.96 pt./A) per season. Do not apply within 1 day of harvest for forage or within 7 days of harvest for hay. ¹ For control of first and second instars only. ² Suppression only. ³ See resistance statement under GENERAL INFORMATION. ⁴ Does not include Western Flower Thrips
	Armyworm Corn Earworm Fall Armyworm ¹ Western Yellow-striped Armyworm Yellow-striped Armyworm Alfalfa Weevil Bean Leaf Beetle (Adult) Blister Beetle spp. Clover Leaf Weevil spp. Clover Root Borer (Adult) Clover Root Curculio spp. (Adult) Clover Stem Borer (Adult) Cowpea Curculio (Adult) Cowpea Weevil (Adult) Cucumber Beetle spp. (Adult) Egyptian Alfalfa Weevil Grape Colaspis (Adult) Green June Beetle (Adult) Japanese Beetle (Adult) Mexican Bean Beetle Pea Weevil (Adult) Sweet Clover Weevil (Adult) Whitefringed Beetle spp. (Adult) Meadow Spittlebug Plant Bug spp., including Lygus spp. ³ Stink Bug spp. Alfalfa Seed Chalcid (Adult) Blue Alfalfa Aphid Cowpea Aphid Green Peach Aphid ³ Pea Aphid Spotted Alfalfa Aphid Thrips spp. ⁴ Grasshopper spp.	0.02-0.03	2.56-3.84	
	Beet Armyworm ^{1,3} Blotch Leafminer ³ Spider Mites ²	0.03	3.84	

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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. ai (0.72 pt.)/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. Seedcorn Maggot Seedcorn Beetle Lesser Cornstalk Borer White Grub spp. Wireworm spp. ¹ Red Imported Fire Ant ¹	0.005 lb. ai per 1000 ft. of row ²	0.66 fl. oz. per 1000 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. ai (0.72 pt.)/A per crop at-plant. For field corn, popcorn, and seed corn, do not apply more than 0.12 lb. ai/A per crop from at-plant and foliar applications. For sweet corn do not apply more than 0.48 lb. ai/A per crop from at-plant and foliar applications. ¹ Suppression only.		
² Lbs. ai and fl. oz./A of Lambda-Cy 1EC 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	13,758	14,520	15,374	16,335	17,424
Lbs. ai/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

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CROP	TARGET PESTS	RATE		REMARKS
		lb. ai/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. 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 1EC 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. ai/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. ai (0.96 pt.)/A per crop from at-plant and foliar applications. Do not apply more than 0.06 lb. ai (0.48 pt.) after silk initiation. Do not apply more than 0.03 lb. ai (0.24 pt.) after 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 For control of first and second instar only. ³ Suppression only. ⁴ See resistance statement under GENERAL INFORMATION.
	Tobacco Budworm ^{1,4} European Corn Borer ¹ Southwestern Corn Borer ¹ 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 Grain Aphid ³	0.02-0.03	2.56-3.84	
	Beet Armyworm ^{2,4} Chinch Bug ⁴ Green Bug ⁴ Southern Corn Leaf Beetle	0.03	3.84	

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CROP	TARGET PESTS	RATE		REMARKS
		lb. ai./A	fl. oz./A	
CEREAL GRAINS Corn (Foliar): Sweet Corn	Corn Earworm Fall Armyworm ¹ Southern Armyworm ¹ Beet Armyworm ² 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	0.02-0.03	2.56-3.84	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./A (0.025 lb.ai/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. ai (3.84 pts./A) per season. ¹ For control of first and second instar only. ² Suppression only. ³ See resistance statement under GENERAL INFORMATION.
	Corn Silky (Adult) ⁴	0.03	3.84	
CEREAL GRAINS: 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	0.025-0.04	3.20-5.12	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 1EC 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.

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CROP	TARGET PESTS	RATE		REMARKS
		lb. ai/A	fl. oz./A	
CEREAL GRAINS: Rice (continued)				<p>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.</p> <p>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.</p> <p>California: In addition to above directions, for control of rice water weevil in water seeded rice, Lambda Cy 1EC 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>Green bug is known to have many biotypes. Lambda-Cy 1EC may only provide suppression. If satisfactory control is not achieved with the first application of Lambda-Cy 1EC, a resistant biotype may be present. Use alternate chemistry for control.</p> <p>For control of rice seed midge in California, apply at the 1- to 3-leaf growth stage.</p> <p>Do not release floodwater within 7 days of an application.</p> <p>Do not apply more than 0.12 lb. ai (0.96 pt.)/A per season.</p> <p>Do not apply more than 0.08 lb. ai (0.64 pt.)/A within 28 days of harvest or more than 0.04 lb. ai (0.32 pt.)/A within 21 days of harvest.</p> <p>Do not apply within 21 days of harvest.</p> <p>Do not use treated rice fields for the aquaculture of edible fish and crustacea.</p> <p>Do not apply as an ultra-low volume (ULV) spray.</p>

1/100

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>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 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 chinch bug control, begin applications when bugs migrate from small grains or grass weeds to small sorghum. Direct spray to the base of sorghum plants. Repeat applications at 3- to 5-day intervals if needed. Lambda-Cy 1EC 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. ai (0.64 pt.)/A per season.</p> <p>Do not apply more than 0.06 lb. ai (0.48 pt.)/A per season after crop emergence.</p> <p>Do not apply more than 0.02 lb. ai (0.16 pt.)/A per season once crop is in soft dough stage.</p> <p>¹For control of first and second instar only.</p> <p>²For control before the larva bores into the plant stalk.</p> <p>³See resistance statement under GENERAL 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	
	Chinch Bug	0.03	3.84	

ra/aa

CROP	TARGET PESTS	RATE		REMARKS
		lb. a.i./A	fl. oz./A	
CEREAL GRAINS: 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 1EC may only suppress heavy infestations and/or migrations. Greenbug is known to have many biotypes. Lambda-Cy 1EC 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 apply more than 0.06 lb. ai (0.48 pt.) /A per season. ¹ Best control is obtained before insects begin to roll leaves. Once wheat has started to boot, Lambda-Cy 1EC may provide suppression only. Higher rates and increased coverage will be necessary. ² See resistance statement under GENERAL INFORMATION.
	Armyworm 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	0.02-0.03	2.56-3.84	
	Grass Sawfly	0.025-0.03	3.20-3.84	
	Chinch Bug ^{1,2} Greenbug ^{1,2} Corn Leaf Aphid ² Mite spp. ²	0.03	3.84	
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. 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.ai (1.92 pts.)/A per season. ¹ For control of first and second instar only. ² Suppression only. ³ See resistance statement under GENERAL INFORMATION.
	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	

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. 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 1EC may be mixed with once-refined vegetable oil and applied in a minimum of at least 1 qt. of finished spray/A. Under light bollworm/budworm infestation levels, 0.02 lb. ai/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 1EC 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 1.6 pts. (0.2 lb.ai)/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. Synthetic pyrethroid products include but are not limited to Ambush® insecticide, Ammo® insecticide, Asana® XL insecticide, Baythroid® emulsifiable pyrethroid insecticide, Capture® insecticide/miticide, Danitol® 2.4 EC Spray insecticide/miticide, Decis® insecticide, Fury™ insecticide, Karate® insecticide, Karate® insecticide with Zeon® technology, Mustang® insecticide, Scout X-tra® insecticide, SynerGin™ insecticide, and Warrior® insecticide with Zeon® technology.</p> <p>¹For control of first and second instar only.</p> <p>²Suppression only.</p> <p>³See resistance statement under GENERAL 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 ^{1,2} European Corn Borer Brown Stink Bug Green Stink Bug Southern Green Sting 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	

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CROP	TARGET PESTS	RATE		REMARKS
		lb. a.i./A	fl. oz./A	
FRUITING VEGETABLES: Tomato and Tomatillo Peppers (bell and nonbell) 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. ai (2.88 pts./A) per season. ¹ For control of first and second instar only. ² Suppression only. ³ See resistance statement under GENERAL INFORMATION. ⁴ For control before the larva bores into the plant stalk or fruit.
	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 ³ Cucumber Beetle spp. (Adult)	0.02-0.03	2.56-3.84	

15/22

CROP	TARGET PESTS	RATE		REMARKS
		lb. a.i./A	fl. oz./A	
LEGUME VEGETABLES: 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 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 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. ai (0.96 pt.)/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 For control of the first and second instar only. ³ For suppression only. ⁴ See resistance statement under GENERAL INFORMATION.
	Corn Earworm Painted Lady Butterfly (larva) European Corn Borer ¹ Looper spp. Western Bean Cutworm Tobacco Budworm ⁴ Armyworm ² Fall Armyworm ² Yellow-striped Armyworm ² Western Yellow-striped Armyworm ² Bean Leaf skeletonizer 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 Aphid spp. ⁴	0.02-0.03	2.56-3.84	
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	Beet Armyworm ^{2,3,4} Soybean Looper ^{3,4} Lesser Cornstalk Borer ³ Leafminer spp. ^{3,4} Whitefly spp. ^{3,4} Spider Mite spp. ³	0.03	3.84	

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CROP	TARGET PESTS	RATE		REMARKS
		lb. a.i./A	fl. oz./A	
LEGUME VEGETABLES (PEAS AND BEANS): Soybean	Corn Earworm Velvetbean Caterpillar Green Cloverworm Cabbage Looper Painted Lady (Thistle) Caterpillar Saltmarsh Caterpillar Woollybear Caterpillar Cutworm spp. Bean Leaf Beetle Mexican Bean Beetle Western Corn Rootworm Beetle (Adult) Northern Corn Rootworm Beetle (Adult) Southern Corn Rootworm Beetle (Adult) Mexican Corn Rootworm Beetle (Adult) Three-Cornered Alfalfa Hopper Potato Leafhopper Thrips spp. Chinese Aphid ⁴	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. ai/A). Do not apply within 45 days of harvest. Do not apply more than 0.06 lb. ai (0.48 pt./A) per season. ¹ For control of the first and second instar only.
	Amyworm ¹ Fall Armyworm ¹ Yellow-striped Armyworm ¹ Tobacco Eudworm ³ Webworm spp. European Corn Borer Silerspotted Skipper Japanese Beetle (Adult) Blister Beetle spp. Stink Bug spp. Plant Bug spp. Grasshopper spp.	0.025-0.03	3.20-3.84	² Suppression only. ³ See resistance statement under GENERAL INFORMATION. ⁴ Use lower rates for early season applications and/or lighter populations.
	Beet Armyworm ^{1,2} Soybean Looper ^{2,3} Lesser Cornstalk Borer ² Spider Mite spp. ²	0.03	3.84	

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CROP	TARGET PESTS	RATE		REMARKS
		lb. a.i./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. 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. ai (2.4 pts.)/A per season. ¹ For control of first and second instar only. ² Suppression only. ³ See resistance statement under GENERAL INFORMATION.
	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	
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. Uses 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, ¼% 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. ai (1.92 pts.)/A per season. ¹ For control of the first and second instars only. ² Suppression only. ³ See resistance statement under GENERAL INFORMATION.
	Amyworm spp. ¹ Onion Thrips Tobacco Thrips Western Flower Thrips ^{2,3} Flower Thrips ² Aphid spp. ² Plant Bug spp. Stink Bug spp.	0.02-0.03	2.56-3.84	

16/22

CROP	TARGET PESTS	RATE		REMARKS
		lb. a.i./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. ai - (0.96 pt.)/A per season.
	Beet Armyworm ^{1,2} Soybean Looper ^{2,3} Lesser Cornstalk Borer ² Spider Mite spp. ² Aphid spp. ²	0.03	3.84	¹ For control of the first and second instars only. ² Suppression only. ³ See resistance statement under GENERAL 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 San Jose Scale (fruit infestations only)	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. Do not apply within 21 days of harvest. Do not apply more than 0.2 lb. ai (1.6 pts.)/A per year. Do not apply more than 0.16 lb. ai (1.28 pts.)/A per year post bloom.
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	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. Do not apply within 14 days of harvest. Do not apply more than 0.2 lb. ai (1.6 pts.)/A per year. Do not apply more than 0.16 lb. ai (1.28 pts.)/A per year post bloom.

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CROP	TARGET PESTS	RATE		REMARKS
		lb. a./A	fl. oz./A	
SUGARCANE	Sugarcane Borer ¹ Rice Borer ¹ Sugarcane Beetle (Adult) ² Yellow Sugarcane Aphid ³	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. ai (1.28 pts./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 GENERAL INFORMATION.
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. Do not apply more than 0.12 lb. ai (0.96 pt./A) per season. Do not apply more than 0.09 lb. ai (0.72 pt./A) per season after bloom initiation.
	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 ^{1,2} Spider Mite spp. ²	0.03	3.84	

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CROP	TARGET PESTS	RATE		REMARKS
		lb. a.i./A	fl. oz./A	
TOBACCO (AIR DRIED): Burley Tobacco and Flue-Cured Tobacco	Tobacco Budworm Tobacco Hornworm Cabbage Looper Corn Earworm Salt Marsh Caterpillar Armyworm spp. ¹ 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. Thrips spp. ² Aphid spp. ^{2,3}	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. Do not apply within 40 days of harvest. Do not apply more than 0.09 lb. ai - (0.72 pt.)/A per year. ¹ For control of first and second instar only. ² Suppression only. ³ See resistance statement under GENERAL INFORMATION.
TREE NUTS: Almond Beech Nut Brazil Nut Butternut Cashew Chestnut Chinquapin Filbert (Hazlenut) Hickory Nut Macadamia Nut (Bush Nut) 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 Leaf-footed 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. Do not apply within 14 days of harvest. Do not apply more than 0.16 lb. ai (1.28 pts.)/A per year. Do not apply more than 0.12 lb. ai (0.96 pt.)/A per year post bloom.
Pecan	Hickory Shuckworm Pecan Casebearer spp. Pecan Weevil Pecan Aphid spp. Pecan Spittlebug Pecan Phylloxera spp.	0.02-0.04	2.56-5.12	Do not apply more than 0.12 lb. ai (0.96 pt.)/A per year post bloom.
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 Woolly Aphid Balsam Twig Aphid	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. ai (1.92 pts.)/A per year.

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CROP	TARGET PESTS	RATE		REMARKS
		lb. ai./A	fl. oz./A	
CONIFER AND DECIDUOUS TREES: Seed Orchards	Coneworm spp. Seed Bug 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. ai (4 pts./A) per year.
NON-CROPLAND (Excluding Public Land)	See Crop Outlets	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 recommendations found elsewhere in 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. Do not exceed 0.2 lb. ai (1.6 pts./A) per year. Do not graze livestock in treated areas.

lb. ai/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.

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: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

CONTAINER IS NOT SAFE FOR FOOD, FEED, OR DRINKING WATER!

WARRANTY STATEMENT

MAKHTESHIM AGAN OF NORTH AMERICA warrants that this product conforms to the chemical description on the label thereof and is reasonably fit for purposes stated on such label only when used in accordance with directions under normal use conditions. It is impossible to eliminate all risks inherently associated with 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 MAKHTESHIM AGAN OF NORTH AMERICA. All such risks shall be assumed by the Buyer. Except as expressly provided herein, MAKHTESHIM AGAN OF NORTH AMERICA makes no warranties, guarantees, or representations of any kind, either expressed or implied, or by usage of trade, statutory or otherwise, with regard to the product sold, including, but not limited to merchantability, fitness for a particular purpose, use or eligibility of the product for any particular trade usage. The exclusive remedy of any buyer or user of this product for any and all losses, injuries, or damages resulting from or in any way arising from the use, handling, or application of this product, whether in contract, warranty, tort, negligence, strict liability, or otherwise, shall be damages not exceeding the purchase price paid for this product or, at MAKHTESHIM AGAN OF NORTH AMERICA's election, the replacement of this product.

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