U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs
Registration Division (7505T)
1200 Pennsylvania Ave., N.W.
Washington, D.C. 20460

EPA Reg. Number:	Date of Issuance:
93930-102	8/11/25

NOTICE OF PESTICIDE:
_X_ Registration
___ Reregistration
(under FIFRA, as amended)

Term of Issuance:
Unconditional

Name of Pesticide Product:
Avalaire Lambda Cyhalothrin 250 gl

Name and Address of Registrant (include ZIP Code):

Avalaire, LLC
940 NW Cary Parkway, Suite 200
Cary, NC 27513

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

On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).

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 unconditionally registered in accordance with FIFRA section 3(c)(5) provided that you:

1. Submit and/or cite all data required for registration/reregistration/registration review of your product when the Agency requires all registrants of similar products to submit such data.

Continues page 2

Signature of Approving Official:

J. d Herrick

Jacquelyn Herrick, Product Manager 03
Invertebrate-Vertebrate Branch 1, Registration Division (7505T)

Date:
8/11/25

EPA Form 8570-6

2. Make the following label changes before you release the product for shipment:

    - Revise the EPA Registration Number to read, “EPA Reg. No. 93930-102.”

3. Submit one copy of the final printed label for the record before you release the product for shipment.

Should you wish to add/retain a reference to the company’s website on your label, then please be aware that the website becomes labeling under FIFRA and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) lists examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product’s label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA’s Office of Enforcement and Compliance.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records.

The record for this product currently contains the following CSF:

- Basic CSF dated 06/20/2024

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

Enclosure

{Note to reviewer: [Text] in brackets denotes optional or explanatory language}
{Note to reviewer: {Text} in braces denotes where in the final label text will appear}
{BOOKLET FRONT PANEL LANGUAGE}

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-CYHALOTHRIN	GROUP 3A	INSECTICIDE

AVALAIRE LAMBDA CYHALOTHRIN 250 G/L[™]

[***Alternate Brand Name: Kavalon with RazorCap Technology***]

[Contains lambda-cyhalothrin, the active ingredient used in Warrior II with Zeon Technology®].

ACTIVE INGREDIENT:	**(% by weight)**
Lambda-cyhalothrin[1,2]	22.8%
OTHER INGREDIENTS:	77.2%
TOTAL	100.0%

Contains 2.08 lbs of active ingredient per gal and is a capsule suspension.
[1]CAS No. 91465-08-6
[2]Synthetic pyrethroid

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.)

See [below] [inside label booklet] for [additional] [First Aid,] [and] [Precautionary Statements] [and] [Directions for Use].

[**Kavalon with RazorCap Technology** is not manufactured, or distributed by Syngenta, seller of Warrior II with Zeon Technology®.]

{Note to reviewer: The Contains Statement and disclaimer will both appear on the front panel, if used on the final product packaging, in close proximity to each other.}

EPA Reg. No.: 93930-XX
EPA Est. No.:
Net Contents:

Manufactured for:
Avalaire, LLC
1705 Towanda Ave
Bloomington, IL 61701

ACCEPTED
08/11/2025
Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 93930-102

{LANGUAGE INSIDE BOOKLET}

FIRST AID	
If swallowed:	• Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • 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 on skin or clothing:	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
If inhaled:	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. • Call a poison control center or doctor for further treatment advice.
If in eyes:	• Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact SafetyCall at **1-984-465-4791** for emergency medical treatment information.	

For Chemical Emergency:
Spill, Leak, Fire, Exposure, or Accident,
Call CHEMTREC Day or Night
Within USA and Canada: 1-800-424-9300 or +1 703-527-3887 (collect calls accepted)

PRECAUTIONARY STATEMENTS
Hazards to Humans and Domestic Animals
WARNING/AVISO

May be fatal if swallowed. Harmful if absorbed through skin. Harmful if inhaled. Avoid contact with eyes, skin or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco. Remove and wash contaminated clothing before reuse.

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

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical resistant gloves made of Viton $\geq$ 14 mils, and/or barrier laminate
- Shoes plus socks
- Protective eyewear

Nurseries:
Mixers, loaders, and applicators supporting foliar broadcast spray, drench, soil, or ground directed liquid treatments using a mechanically pressurized handgun must wear:

- Long-sleeved shirt and long pants,
- Shoes plus socks,
- Chemical resistant gloves made of Viton > 14 mils, and/or barrier laminate
- A minimum of a NIOSH-approved particulate filtering facepiece respirator with any R or P filter; OR a NIOSH-approved elastomeric particulate respirator with any R or P filter; OR a NIOSH-approved powered air purifying respirator with HE filters

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. DO NOT reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

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

User Safety Recommendations

Users should:

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

Environmental Hazards
This pesticide is extremely toxic to fish and aquatic organisms and toxic to wildlife.

For terrestrial uses: 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 washwater.

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

DIRECTIONS FOR USE
RESTRICTED USE PESTICIDE

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

For outdoor use only.

SHAKE WELL BEFORE USING.

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:

- Coveralls
- Chemical resistant gloves made of Viton $\geq$ 14 mils, and/or barrier laminate
- Shoes plus socks
- Protective eyewear

Nurseries:

Mixers, loaders, and applicators supporting foliar broadcast spray, drench, soil, or ground directed liquid treatments using a mechanically pressurized handgun must wear:

- Long-sleeved shirt and long pants,
- Shoes plus socks,
- Chemical resistant gloves made of Viton > 14 mils, and/or barrier laminate
- A minimum of a NIOSH-approved particulate filtering facepiece respirator with any R or P filter; OR a NIOSH-approved elastomeric particulate respirator with any R or P filter; OR a NIOSH-approved powered air purifying respirator with HE filters.

NON-AGRICULTURAL USE REQUIREMENTS

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

DO NOT enter or allow others to enter the treated areas until sprays have dried. AVOID working in spray mist.

Keep all unprotected persons out of operating areas or vicinity where there may be danger of drift. Certain states may require more restrictive reentry intervals; consult your State Department of Agriculture for further information

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

Use Directions
Initial and residual control are contingent upon thorough crop coverage. Apply with ground or aerial equipment using sufficient water to obtain full coverage of foliage. Apply in a minimum of 2 gal per acre by air or 10 gal 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, **AVALAIRE LAMBDA CYHALOTHRIN 250 G/L** may be applied before, during, or after planting. For soil-incorporated applications, use higher labeled rates for improved control.

Removable chemical extraction probes (also known as "stingers") used in suction/extraction systems must be rinsed within the pesticide container prior to removal.

RESISTANCE MANAGEMENT
For resistance management, **AVALAIRE LAMBDA CYHALOTHRIN 250 G/L** contains a Group 3A insecticide. Any insect/mite population may contain individuals naturally resistant to **AVALAIRE LAMBDA CYHALOTHRIN 250 G/L** and other Group 3 insecticides. The resistant individuals may dominate the insect/mite population if this group of insecticides are used repeatedly in the same fields. Appropriate resistance-management strategies should be followed.

To delay insecticide resistance, take the following steps:

- Rotate the use of **AVALAIRE LAMBDA CYHALOTHRIN 250 G/L** or other Group 3 insecticides within a growing season, or among growing seasons, with different groups that control the same pests.
- Use tank mixtures with insecticides from a different group that are equally effective on the target pest when such use is permitted. Do not rely on the same mixture repeatedly for the same pest population. Consider any known cross-resistance issues between the individual components of a mixture. In addition, consider the following recommendations provided by the Insecticide Resistance Action Committee (IRAC):
    - Individual insecticides selected for use in mixtures should be highly effective and be applied at the rates at which they are individually registered for use against the target species.
    - Mixtures with components having the same IRAC mode of action classification are not recommended for insect resistance management.
    - When using mixtures, consider any known cross-resistance issues between the individual components for the targeted pests.
    - Mixtures become less effective if resistance is already developing to one or both active ingredients, but they may still provide pest management benefits.
    - The insect resistance management benefits of an insecticide mixture are greatest if the two components have similar periods of residual insecticidal activity. Mixtures of insecticides with unequal periods of residual insecticide activity may offer an insect resistance management benefit only for the period where both insecticides are active.
- Adopt an integrated pest management program for insecticide/acaricides use that includes scouting, uses historical information related to pesticide use, crop rotation, record keeping, and which considers cultural, biological and other chemical control practices.
- Monitor after application for unexpected target pest survival. If the level of survival suggests the presence of resistance, consult with your local university specialist or certified pest control advisor.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-

management and/or IPM recommendations for the specific site and pest problems in your area.

- For further information or to report suspected resistance contact Avalaire, LLC.

VEGETATIVE FILTER STRIPS

(Not intended for use on rice)

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

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

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

For further guidance on vegetated filter strips, refer to the following publication for information on constructing and maintaining effective buffers: Conservation Buffers to Reduce Pesticide Losses. Natural Resources Conservation Services. https://www.regulations.gov/document?D=EPA-HQ-OPP-2008-0331-0175.

Buffer Zones to Water Bodies

Ground Application

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

Ultra Low Volume (ULV) Aerial Application

- Do not apply within 450 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, streams, marshes, ponds, estuaries, and commercial fish ponds). Applications made by mosquito control districts and other public health officials are exempt from this requirement.

Non-ULV Aerial Application

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

In the State of New York, a 25 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 or 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.

Non-Agricultural Use Sites

- Do not apply the product into fish pools, ponds, streams, or lakes. Do not apply directly to sewers or storm drains, or to any area like a drain or gutter where drainage to sewers, storm drains, water bodies, or aquatic habitat can occur.
- Do not allow the product to enter any drain during or after application.
- Do not apply directly to impervious horizontal surfaces such as sidewalks, driveways, and patios except as a spot or crack-and-crevice treatment.
- Do not apply or irrigate to the point of runoff.
- Do not make applications during rain. Avoid making applications when rainfall is expected before the product has sufficient time to dry (minimum 4 hours).
- Rainfall within 24 hours after application may cause unintended runoff of pesticide application.

MANDATORY SPRAY DRIFT MANAGEMENT

Aerial Applications:

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

Airblast Applications:

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

Ground Boom Applications:

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

Boomless Ground Applications:

- Applicators are required to select nozzle and pressure that deliver a Medium or coarser droplet size (ASABE S572) for all applications.
- Do not apply when wind speeds exceed 15 miles per hour at the application site.
- Do not apply during temperature inversions.

SPRAY DRIFT ADVISORIES

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

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

Controlling Droplet Size – Ground Boom

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

Controlling Droplet Size – Aircraft

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

BOOM HEIGHT – Ground Boom
For ground equipment, the boom should remain level with the crop and have minimal bounce.

RELEASE HEIGHT - Aircraft
Higher release heights increase the potential for spray drift.

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

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

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

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

Handheld Technology Applications:
Take precautions to minimize spray drift.

Additional Requirements for Aerial Applications
The spray boom should be mounted on the aircraft as to minimize drift caused by wingtip or rotor vortices.

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.

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

TANK MIX APPLICATION
When tank-mixing with any other agricultural products, always add **AVALAIRE LAMBDA CYHALOTHRIN 250 G/L** last. Fill the tank with 1/2 - 2/3 volume of the mixing diluent. Make sure all other products are fully dispersed in the mixing diluent before adding the recommended labeled rate of **AVALAIRE LAMBDA CYHALOTHRIN 250 G/L** 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 **AVALAIRE LAMBDA CYHALOTHRIN 250 G/L** 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.

AVALAIRE LAMBDA CYHALOTHRIN 250 G/L is an aqueous-based formulation. It is recommended that no type of non-emulsifiable oils be used in combination with **AVALAIRE LAMBDA CYHALOTHRIN 250 G/L**. If adjuvants are used, use only:

- Nonionic Surfactant (NIS) containing at least 75% surface agent, or
- Nonphytotoxic 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 nonphytotoxic to the target crop.
3. Is compatible in mixture. (May be established through a jar test.)
4. Is supported locally for use with **AVALAIRE LAMBDA CYHALOTHRIN 250 G/L** 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 **AVALAIRE LAMBDA CYHALOTHRIN 250 G/L** as diluents or adjuvants:

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

CHEMIGATION

Sprinkler Irrigation Application

Apply **AVALAIRE LAMBDA CYHALOTHRIN 250 G/L** 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 **AVALAIRE LAMBDA CYHALOTHRIN 250 G/L** applied by chemigation.

Check the irrigation system to insure uniform application of water to all areas. Thoroughly cover the foliage for control. Maintain agitation in the pesticide supply tank.

Apply by injecting the labeled rate of **AVALAIRE LAMBDA CYHALOTHRIN 250 G/L** 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. Inject the products into the main irrigation line ahead of a right angle turn in the line to ensure 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 directions, if application is being made during a normal irrigation set of a stationary sprinkler, inject labeled rate of **AVALAIRE LAMBDA CYHALOTHRIN 250 G/L** for the area covered into the system only during the end of the irrigation set for sufficient time to provide adequate coverage and product distribution.

Do not apply **AVALAIRE LAMBDA CYHALOTHRIN 250 G/L** through an irrigation system connected to a public water system. Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.

Use Precautions - Sprinkler Irrigation Applications

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 any 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 back- flow.
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 are 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.

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

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

How to Report Bee Kills

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

SPECIFIC USE DIRECTIONS

AGRICULTURAL USES

Crop	Target Pests	Rate	
		lb ai/A	fl oz/A
ALFALFA AND ALFALFA GROWN FOR SEED			
	Alfalfa Caterpillar Army cutworm Cutworm species Green Cloverworm Leafhopper species Looper species Threecornered Alfalfa Hopper Velvetbean caterpillar Webworm species	0.015-0.025	0.96-1.60
	Alfalfa Seed Chalcid (Adult) Alfalfa Weevil Armyworm Bean Leaf Beetle (Adult) Blister Beetle species Blue Alfalfa Aphid Clover Leaf Weevil species Clover Root Borer (Adult) Corn Earworm Cowpea Aphid Cowpea Curculio (Adult) Cowpea Weevil (Adult) Cucumber Beetle species (Adult) Egyptian Alfalfa Weevil Fall Armyworm[1] Grape Colaspis (Adult) Grasshopper species Green June Beetle (Adult) Green Peach Aphid[3] Japanese Beetle (Adult) Meadow Spittlebug Mexican Bean Beetle Pea Aphid Pea Weevil (Adult) Plant Bug species including Lygus species[3] Spotted Alfalfa Aphid Stink bug species Sweet Clover Weevil (Adult) Thrips species[4] Western Yellowstriped Armyworm Whitefringed Beetle species (Adult) Yellowstriped Armyworm	0.02-0.03	1.28-1.92
	Beet Armyworm [1,3] Blotch Leafminer[3] Spider Mites[2]	0.03	1.92

Remarks:

- Apply as required by scouting. base timing and frequency of applications on 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 gal per acre by air or 10 gal per acre by ground. When foliage is dense and/or pest populations are high 5-10 gal per acre by air or 20 gal per acre by ground and higher labeled rates are recommended. Use higher labeled rates for increased residual control.
- Apply when bees are not actively foraging, during the early morning or during the evening hours. Be aware of bee hazard resulting from a cool evening and/or morning dew. Remove bee shelters during and for 2-3 days following application. **Do not** apply directly to bee shelters.

Restrictions:

- **Do not** apply more than 0.03 lb ai (1.92 fl oz or 0.12 pt of product) per acre per cutting.
- **Do not** apply more than 0.12 lb ai (7.68 fl oz or 0.48 pt of product) per acre per season.
- **Do not** apply within 1 day of harvest for forage or within 7 days of harvest for hay.

[1]Use higher label rates for large larvae.
[2]Suppression only
[3]See **Resistance** statement under **Use Directions**.
[4]Does not include Western Flower Thrips.

Crop	Target Pests	Rate	
		lb ai/A	fl oz/A
CANOLA			
	Armyworm species Cabbage Seedpod Weevil Cutworm species Diamondback Moth Flea Beetle Grasshoppers Looper species Lygus Bug	0.015-0.03	0.96-1.92
	Cabbage Aphid	0.03	1.92

Remarks:

- Apply as required by scouting, usually at intervals of 5 or more days. Base timing and frequency of applications on 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 gal of water per acre.

Restrictions:

- **Do not** apply within 7 days of harvest.
- **Do not** apply more than 0.09 lb ai (5.76 fl oz or 0.36 pt of product) per acre per year.

Crop	Target Pests	Rate	
		lb ai/A	fl oz/A
CEREAL GRAINS			
Corn (at Plant): Field Corn Popcorn	Corn Rootworm Larvae: Mexican Northern Southern Western Cutworm species Lesser Cornstalk Borer Red Imported Fire Ant[1] Seedcorn Beetle Seedcorn Maggot White Grubspecies Wireworm species	0.005 lb ai per 1000 ft of row[2]	0.33 fl oz per 1000 ft of row[2]
Seed Corn Sweet Corn		See below table for rate per 1000 ft. of Row[3]	See below table for rate per 1000 ft. of Row[3]

Remarks:

- **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 gal finished spray per acre.

Restrictions:

- **Do not** harvest or graze livestock or cut treated crops for feed within 21 days of at plant application.
- For field corn and popcorn, **do not** apply more than 0.09 lb ai (5.76 fl oz or 0.36 pt of product) per acre per crop at plant.
- For field corn and popcorn, **do not** apply more than 0.12 lb ai (7.68 fl oz or 0.48 pt of product) per acre per crop from at plant and foliar applications.
- For sweet corn grown for grain, and seed corn (field, pop, sweet) do not apply more than 0.032 lb ai (1.9 fl oz or 1.23 pt of product) per acre per application

[1]Suppression only

[2]Lb Ai And Fl Oz/A of **AVALAIRE LAMBDA CYHALOTHRIN 250 G/L** Applied At 0.33 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
Lb ai/A	0.067	0.07	0.075	0.079	0.084	0.09
Fl oz/A	4.3	4.55	4.8	5.05	5.4	5.75

CORN, SWEET, GRAIN AND SEED CORN (FIELD, POP, SWEET)						
[3]Rate per 1000 ft. of Row, Lb Ai, And Fl Oz/A of **AVALAIRE LAMBDA CYHALOTHRIN 250 G/L** Applied For Various Row Spacings.						
Row Spacing	40"	38"	36"	34"	32"	30"
Rate Fl oz/1000 ft of Row (lb ai)	0.149	0.142	0.134	0.127	0.119	0.112
Linear Ft/A	13,068	13,756	14,520	15,374	16,335	17,424
Lb ai/A	0.032	0.032	0.032	0.032	0.032	0.032
Fl oz/A	1.95	1.95	1.95	1.95	1.95	1.95

Crop	Target Pests	Rate	
		lb ai/A	fl oz/A
CEREAL GRAINS			
Corn (Foliar): Field Corn Popcorn Seed Corn	Corn Earworm[1] Cutworm species Green Cloverworm Meadow Spittlebug Western Bean Cutworm[1]	0.015-0.025	0.96-1.60
	Armyworm[2] Bean Leaf Beetle Bird Cherry-Oat Aphid[3] Cereal Leaf Beetle Corn Leaf Aphid[3] Corn Rootworm Beetle (Adult): Mexican Northern Southern Western English Grain Aphid[3] European Corn Borer[1] Fall Armyworm[2] Flea Beetle species Grasshopper species Hop Vine Borer[1] Japanese Beetle (Adult) Lesser Cornstalk Borer Sap Beetle (Adult) Seedcorn Beetle	0.02-0.03	1.28-1.92

	Southwestern Corn Borer[1] Stalk Borer[1] Stink Bug species Tobacco Budworm[1,4] Webworm species Yellowstriped Armyworm[2]		
	Beet Armyworm[4] Chinch Bug Greenbug[3,4] Mexican Rice Borer[1] Rice Stalk Borer[1] Southern Corn Leaf Beetle[3] Sugarcane Borer[1]	0.03	1.92

Remarks:

- Apply as required by scouting, or locally prescribed corn growth stages, usually at intervals of 7 or more days. Base timing and frequency of applications on 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 gal of water per acre.
- 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- to 5-day intervals if needed. **AVALAIRE LAMBDA CYHALOTHRIN 250 G/L** may only suppress heavy infestations and/or subsequent migrations.
- For control of adult corn rootworm beetles (Diabrotica species) as part of an aerial applied corn rootworm control program use a minimum of 0.03 lb ai (1.92 fl oz of product) per acre.

Restrictions:

- **Do not** apply within 21 days 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 0.12 lb ai (7.68 fl oz or 0.48 pt of product) per acre per crop from at plant and foliar applications.
- **Do not** apply more than 0.06 lb ai (3.84 fl oz or 0.24 pt of product) per acre after silk initiation. Do not apply more than 0.03 lb ai (1.92 fl oz or 0.12 pt of product) per acre after corn has reached the milk stage (yellow kernels with milky fluid).
- **Do not** apply more than 0.032 lb ai/acre per application.
- Re-entry interval (REI): 48 hours for the following activities:
    - Hand detasseling or mechanically assisted detasseling of field corn, pop corn, or sweet corn grown for seed.

[1]For control before the larva bores into the plant stalk or ear.
[2]Use higher label rates for large larvae.
[3]Suppression only
[4]See **Resistance** statement under **Use Directions**.

Crop	Target Pests	Rate	
		lb ai/A	fl oz/A
CEREAL GRAINS			
Sweet Corn (Foliar)	Aphid species[2,3] Armyworm[1] Aster Leafhopper Beet Armyworm[1,3] Chinch Bug Common Cornstalk Borer Corn Earworm Corn Rootworm Beetle (Adult): Mexican Northern Southern Western Cutworm species European Corn Borer Fall Armyworm[1] Flea Beetle species Grasshopper species Japanese Beetle (Adult) Sap Beetle (Adult) Southern Armyworm[1] Southwestern Corn Borer Spider Mitespecies[2] Stink Bug species Tarnished Plant Bug Webworm species Western Bean Cutworm Yellowstriped Armyworm[1]	0.02-0.03	1.28-1.92
	Corn Silkfly (Adult)[2]	0.03	1.92

Remarks:

- Apply as required by scouting, or locally prescribed corn growth stages, usually at intervals of 4 or more days. Base timing and frequency of applications on insect populations reaching locally determined economic thresholds or other locally recommended methods, target application 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 gal of water per acre.
- For control of adult corn rootworm beetles (Diabrotica species) as part of an aerial applied corn rootworm control program use a minimum of 0.025 lb ai (1.60 fl oz of product) per acre.

Restrictions:

- **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 (30.72 fl oz or 1.92 pt of product) per acre per crop from at plant and foliar applications.
- **Do not** apply more than 0.032 lb ai/acre per application.

- Re-entry interval (REI): 48 hours for hand harvesting of sweet corn grown for grain.

[1]Use higher label rates for large larvae.
[2]Suppression only
[3]See **Resistance** statement under **Use Directions**.

Crop	Target Pests	Rate	
		lb ai/A	fl oz/A
CEREAL GRAINS			
Rice Wild Rice	Bird Cherry-Oat Aphid Chinch Bug Fall Armyworm Grasshopper species Greenbug Leafhopper species Rice Stink Bug Rice Water Weevil (Adult) Riceworm Sharpshooter species True Armyworm Yellow Sugarcane Aphid Yellowstriped Armyworm	0.025-0.04	1.6-2.56
	European Corn Borer[1] Mexican Rice Borer[1] Rice Seed Midge[1] Rice Stalk Borer[1] Sugarcane Borer[1]	0.03-0.04	1.92-2.56

Remarks:

- Apply as required by scouting. Base timing and frequency of application on insect populations reaching locally determined economic thresholds. Determine the need for repeat applications, usually at intervals of 5 - 7 days, by scouting.
- **AVALAIRE LAMBDA CYHALOTHRIN 250 G/L** 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 gal of water (or total carrier volume) per acre, but ensure sufficient volume is used to provide adequate coverage. In addition, adding an emulsified crop oil (e.g., 1 pt per acre) when lower aerial application volumes are used is recommended to help improve coverage, reduce evaporation and improve efficacy.
- 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, **AVALAIRE**

LAMBDA CYHALOTHRIN 250 G/L may be applied at the 1-3 leaf growth stage, with the majority at the 2-leaf growth stage. Adults are vulnerable on levees and in the water. Larvae are vulnerable while feeding on the leaf prior to entering the soil. Monitor for adults, based upon field history and density of population. Monitor field edges and levee areas for adults. Treat in the following manner: a) spray the inside perimeter of the field, or b) spray the entire field.

- Greenbug is known to have many biotypes. **AVALAIRE LAMBDA CYHALOTHRIN 250 G/L** may only provide suppression. If satisfactory control is not achieved with the first application of **AVALAIRE LAMBDA CYHALOTHRIN 250 G/L**, 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.
- Mixers/loaders supporting aerial applications to wild rice at a rate of 0.04 lb ai per acre, and treating 1200 acres (or more) per day must wear dust-mist respirator.

Restrictions:

- **Do not** release flood water within 7 days of an application.
- **Do not** apply more than 0.12 lb ai (7.68 fl oz or 0.48 pt of product) per acre per season.
- **Do not** apply more than 0.04 lb ai (2.56 fl oz or 0.16 pt of product) per acre within 21 to 27 days of harvest.
- **Do not** apply within 21 days of harvest.
- **Do not** use treated rice fields for the aquaculture of edible fish and crustacea.
- **Do not** apply as an ultra-low volume (ULV) spray.

[1]For control before the larvae bores into the plant stalk.

Crop	Target Pests	Rate	
		lb ai/A	fl oz/A
CEREAL GRAINS			
Sorghum (Grain)	Cutworm species Sorghum Midge	0.015-0.02	0.96-1.28
	Armyworm Beet Armyworm[3] Corn Earworm European Corn Borer[2] Fall Armyworm[1] Flea Beetlespecies Grasshopper species Lesser Cornstalk Borer[2] Southwestern Corn Borer[2] Stink Bug species Webworm species Yellowstriped Armyworm[1]	0.02-0.03	1.28-1.92
	Chinch Bug Mexican Rice Borer[2] Rice Stalk Borer[2] Sugarcane Borer[2]	0.03	1.92

Remarks:

- Apply as required by scouting, usually at intervals of 5 or more days. Base timing and frequency of applications on insect populations reaching locally determined economic thresholds.
- Apply with ground or aerial equipment using sufficient water and application methods to obtain full coverage of target location. When applying by air, apply in a minimum of 2 gal of water per acre.
- 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.
- 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. **AVALAIRE LAMBDA CYHALOTHRIN 250 G/L** may only suppress heavy infestations and/or subsequent migrations.

Restrictions:

- **Do not** apply more than 0.08 lb ai (5.12 fl oz or 0.32 pt of product) per acre per season.
- **Do not** apply more than 0.06 lb ai (3.84 fl oz or 0.24 pt of product) per acre per season after crop emergence.
- **Do not** apply more than 0.02 lb ai (1.28 fl oz or 0.08 pt of product) per acre per season once crop is in soft-dough stage.
- **Do not** apply within 30 days of harvest.

[1]Use higher label rates for large larvae.
[2]For control before the larva bores into the plant stalk.
[3]See **Resistance** statement under **Use Directions.**

Crop	Target Pests	Rate	
		lb ai/A	fl oz/A
CEREAL GRAINS			
Barley Buckwheat	Army Cutworm Cutworm species	0.015-0.025	0.96-1.60
Oats Rye Triticale Wheat Wheat Hay	Armyworm Bird Cherry-Oat Aphid[1] Cereal Leaf Beetle English Grain Aphid[1] Fall Armyworm Flea Beetle species Grasshopper species Hessian Fly[4] Orange Blossom Wheat Midge Russian Wheat Aphid[1] Stink Bug species Yellowstriped Armyworm	0.02-0.03	1.28-1.92
	Grass Sawfly	0.025-0.03	1.60-1.92
	Chinch Bug Corn Leaf Aphid[2] Greenbug[1,3] Mitespecies[2]	0.03	1.92

Remarks:

- Apply as required by scouting, usually at intervals of 5 or more days. Base timing and frequency of applications on 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 gal of water per acre.

- For chinch bug control, repeat applications at 3- to 5-day intervals if needed. **AVALAIRE LAMBDA CYHALOTHRIN 250 G/L** may only suppress heavy infestations and/or migrations.
- Greenbug is known to have many biotypes. **AVALAIRE LAMBDA CYHALOTHRIN 250 G/L** may provide suppression only. In this situation, a second application using an alternative chemistry may be needed.

Restrictions:

- **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 treatment. **Do not** feed treated straw to meat or dairy animals within 30 days after the last treatment.
- **Do not** apply more than 0.06 lb ai (3.84 fl oz or 0.24 pt of product) per acre per season.

[1]Best control is obtained before insects begin to roll leaves. Once crop has started to boot, **AVALAIRE LAMBDA CYHALOTHRIN 250 G/L** may provide suppression only. Higher labeled rates and increased coverage will be necessary.
[2]Suppression only
[3]See Resistance statement under Use Directions.
[4]Make applications when adults emerge.

Crop	Target Pests	Rate	
		lb ai/A	fl oz/A
COLE CROPS (HEAD AND STEM BRASSICA)			
Broccoli Brussels Sprouts Cabbage Cavalo Broccolo Cauliflower	Alfalfa Looper Cabbage Looper Cabbage Webworm Cutworm species Imported Cabbageworm Southern Cabbageworm	0.015-0.025	0.96-1.60
Chinese Broccoli (gai lon) Chinese Cabbage (napa) Chinese Mustard Cabbage (gai choy) Kohlrabi	Aphid species[2,3] Armyworm Beet Armyworm[1,3] Corn Earworm Diamondback Moth[3] Fall Armyworm[1] Flea Beetle species Grasshopper species Japanese Beetle (Adult) Leafhopper species Meadow Spittlebug Plant Bug species including Lygus species[3] Spider Mitespecies[2] Stink Bug species Thrips species[2] Vegetable Weevil (Adult) Whitefly species[2,3] Yellowstriped Armyworm	0.02-0.03	1.28-1.92

Remarks:

- Apply as required by scouting, usually at intervals of 5 or more days. Base timing and frequency of applications on 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 gal of water per acre.

Restrictions:

- **Do not** apply within 1 day of harvest.
- **Do not** apply more than 0.24 lb ai (15.36 fl oz or 0.96 pt of product) per acre per season.
- **Do not** apply as foliar broadcast application using a mechanically pressurized handgun.

[1]For control of first and second instar only.
[2]Suppression only
[3]See **Resistance** statement under **Use Directions**.

Crop	Target Pests	Rate	
		lb ai/A	fl oz/A
COTTON			
	Cutworm species Soybean Thrips Tobacco Thrips	0.015-0.02	0.96-1.28
	Cabbage Looper Cotton Fleahopper Cotton Leafperforator Cotton Leafworm Lygus Bug species[3] Pink Bollworm Saltmarsh Caterpillar	0.02-0.03	1.28-1.92
	Bandedwing Whitefly[2,3] Beet Armyworm[1,3] Boll Weevil Brown Stink Bug Cotton Aphid[2,3] Cotton Bollworm European Corn Borer Fall Armyworm Green Stink Bug Southern Green Stink Bug Sweet Potato Whitefly[2,3] Tobacco Budworm[3] Twospotted Spider Mite[2]	0.025-0.04	1.60-2.56

Remarks:

- Apply as required by scouting, usually at intervals of 5 - 7 days. Base timing and frequency of applications on insect populations reaching locally determined economic thresholds.
- Apply with ground or aerial equipment using sufficient water to obtain full coverage of foliage.
- Applications may also be made with equipment adapted and calibrated for ULV sprays. **AVALAIRE LAMBDA CYHALOTHRIN 250 G/L** may be mixed with once-refined vegetable oil and applied in a minimum of at least one qt of finished spray per acre.
- Under light bollworm/budworm infestation levels, 0.02 lb ai (1.28 fl oz of product) per acre may be applied in conjunction with intense field monitoring.
- For boll weevil control, spray on a 3- to 5-day schedule. When applied according to label directions for control of cotton bollworm and tobacco budworm, **AVALAIRE LAMBDA CYHALOTHRIN 250 G/L** also provides ovicidal control of unhatched *Heliothine* species eggs.

Restrictions:

- **Do not** apply within 21 days of harvest.
- **Do not** graze livestock in treated areas.
- **Do not** apply more than 0.2 lb ai (12.8 fl oz or 0.8 pt of product) per acre per season.
- **Do not** make more than a total of 10 synthetic pyrethroid applications (of one product or combination of products) to a cotton crop in one growing season.

[1]For control of the first and second instar only.
[2]Suppression only
[3]See **Resistance** statement under **Use Directions**.

Crop	Target Pests	Rate	
		lb ai/A	fl oz/A
CUCURBIT VEGETABLES			
Chayote (fruit) Chinese Waxgourd (Chinese preserving melon) Citron Melon Cucumber Cherkin Gourd (edible) *Lagenaria* species- Includes: Hyotan, Cucuzza *Luffa Acutangula,* *L. cylindrical* – includes: hechima, Chinese okra *Momordica* species – includes: Balsam apple, balsam pear, bitter melon, chinese cucumber Muskmelon (hybrids and/or cultivars of *Cucumis* melo) – 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	Armyworm species[1] Blister Beetle species Cabbage Looper Corn Earworm Cricket species Cucumber Beetle species (adults) Cutworm species Flea Beetle species Grasshopper species June Beetle species Leaffooted Bug Leafhopper species Lygus Bugspecies[1] Melonworm Pickleworm Plant Bug species Rindworm species complex Saltmarsh Caterpillar Squash Beetle Squash Bug species Squash Vine Borer species Stink Bug species Thrips species[1, 2] Tobacco Budworm[1] Webworm species	0.02-0.03	1.28-1.92
Squash, summer (*Cucurbita pepo* var. *melopepo)* – includes: crookneck squash, scallop squash straightneck squash, vegetable marrow, zucchini Squash , winter (*Cucurbita maxima; C. moschato)* – includes: Butternut squash, calabaza, hubbard squash (*C. mixta; C. pepo*) – includes:Acorn squash, spaghetti squash	Aphid species[1] Leafminer species[1,3] Whitefly species[1,3] Spider Mite species[3]	0.03	1.92

Watermelon – includes: hybrids and/or varieties of *Citrulius lanatus*			

Remarks:

- Apply as required by scouting, usually at intervals of 5 or more days. Base timing and frequency of applications on insect populations reaching locally determined economic thresholds.
- Apply with ground or air equipment using sufficient water and application methods to obtain full coverage of all plant parts. When applying by air, apply in a minimum of 2 gal total solution per acre. When applying by ground, a minimum of 10 gal total solution per acre is recommended.
- Use higher application volumes and/or rates when foliage is dense, pest populations are high, larvae are large, weather conditions are adverse and/or as plant size increases. Use higher labeled rates for longer residual.
- 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 **AVALAIRE LAMBDA CYHALOTHRIN 250 G/L**.

Restrictions:

- **Do not** apply more than 0.18 lb ai (11.5 fl oz or 0.72 pt of product) per acre per season.
- **Do not** apply within 1 day of harvest.
- **Do not** apply as foliar broadcast application using a mechanically pressurized handgun.

[1]See **Resistance** statement under **Use Directions**.
[2]Does not include Western Flower Thrips
[3]Suppression only

Crop	Target Pests	Rate	
		lb ai/A	fl oz/A
FRUITING VEGETABLES			
Eggplant Ground cherry Pepino	Cabbage Looper Cutworm species Hornworm species	0.015-0.025	0.96-1.60
Peppers (bell and nonbell) Tomatillo Tomato	Aphid species[2,3] Beet Armyworm[1,3] Blister Beetle species Colorado Potato Beetle[3] Cucumber Beetle species (Adult) European Corn Borer[4] Fall Armyworm[1] Flea Beetle species Grasshopper species Japanese Beetle (Adult) Leafhopper species Leafminer species[2] Meadow Spittlebug Pepper Weevil (Adult)[2] Plant Bug species Southern Armyworm[1] Spider Mite species[2] Stalk Borer[4] Stink Bug species	0.02-0.03	1.28-1.92

	Thrips[5] Tobacco Budworm[3] Tomato Fruitworm Tomato Pinworm Tomato Psyllid[2,3] Vegetable Weevil (Adult) Whitefly species[2,3] Yellowstriped Armyworm[1]		

Remarks:

- Apply as required by scouting, usually at intervals of 5 or more days. Base timing and frequency of applications on 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 gal of water per acre.

Restrictions:

- **Do not** apply within 5 days of harvest.
- **Do not** apply more than 0.36 lb ai (23.04 fl oz or 1.44 pt of product) per acre per season.
- **Do not** apply as foliar broadcast application using a mechanically pressurized handgun.

[1]For control of first and second instar only
[2]Suppression only
[3]See **Resistance** statement under **Use Directions**.
[4]For control before the larva bores into the plant stalk or fruit
[5]Does not include Western Flower Thrips.

Crop	Target Pests	Rate	
		lb ai/A	fl oz/A
GRASS FORAGE, FODDER AND HAY			
Pasture and Rangeland Grass, Grass Grown for Hay or Silage and Grass Grown for Seed	Army Cutworm Cutworm species Essex Skipper Range Caterpillar Striped Grass Looper	0.015-0.025	0.96-1.6
	Beet Armyworm Billbug species[3] Bird Cherry-Oat Aphid[1] Black Grass Bug Black Turfgrass Beetle (adult) Blue Stem Midge Cereal Leaf Beetle Chinch Bug Crane Fly species Cricket species English Grain Aphid[1] Fall Armyworm Flea Beetle species Grass Mealybug Grass Sawfly (adult) Grasshopper species Green June Beetle (adult) Greenbug[1, 2]	0.02-0.03	1.28 – 1.92

	Japanese Beetle (adult) Katydid species Leafhopper species Mitespecies[3] Russian Wheat Aphid[1] Southern Armyworm Spittlebug species Stink Bug species Sugarcane Aphid Thrips species Tick species True Armyworm Webworm species Yellowstriped Armyworm		

Remarks:

- Apply as required by scouting. Base timing and frequency of applications on 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 gal total solution per acre. When applying by ground, apply a minimum of 7 gal total solution per acre.
- Use higher application volumes and rates when foliage is dense, pest populations are high, larvae are large and/or weather conditions are adverse. Use higher labeled rates for longer residual.
- For chinch bug control, **AVALAIRE LAMBDA CYHALOTHRIN 250 G/L** may only suppress heavy infestations and/or migrations. In this situation, a second application using an alternative chemistry maybe needed.
- Greenbug is known to have many biotypes. **AVALAIRE LAMBDA CYHALOTHRIN 250 G/L** may provide suppression only. In this situation, a second application using an alternative chemistry may be needed.
- Pasture and rangeland grass may be used for grazing or cut for forage 0 days after application. Do not cut grass to be dried and harvested for hay until 7 days after the last application.

Grass grown for seed:

- Straw, hay 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.

Restrictions:

- **Do not** apply more than 0.03 lb ai (1.92 fl oz or 0.12 pt of product) per acre per cutting for pastures, rangeland and grasses grown for seed. A minimum re-treatment interval (RTI) of 30 days is required for pastures and rangeland receiving 0.03 lb ai per acre which have not been cut between applications.
- **Do not** apply more than 0.09 lb ai (5.76 fl oz or 0.36 pt of product) per acre per season.

[1]Best control is obtained before insects begin to roll leaves.
[2]See **Resistance** statement under **Use Directions**.
[3]Suppression only

Crop	Target Pests	Rate	
		lb ai/A	fl oz/A
LEGUME VEGETABLES (BEANS AND PEAS)			
Edible Podded (only) *Canavalia ensiformis* -jackbean *Canavalia gladiate* -sword bean	Cutworm species Green Cloverworm Imported Cabbageworm Mexican Bean Beetle Saltmarsh Caterpillar Velvetleaf Caterpillar	0.015-0.025	0.96-1.60
Glycine max -soybean (immature seed) **Edible Podded, Succulent Shelled or Dried Shelled** *Cajanus cajan* - Pigeon pea *Phaseolus* species - Includes: field, kidney, lima, navy, pinto, runner, snap, tepary and wax beans *Pisum* species – includes: dwarf, edible-pod, English, field, garden, green snow and sugar snap peas *Vigna* species – includes: adzuki, asparagus, moth, mung, rice, urd and yardlong beans, black-eye pea, catjang, Chinese longbean, cowpea, Crowder pea, Southern pea **Succulent Shelled or Dried Shelled** *Vicia faba* – broadbean (favabean) **Dried Shelled (only)** *Cicer arietimum* – chickpea (garbanzo bean) *Cyamopsis tetragonoloba* – guar *Lablab pupureus* – Lablab bean (hyacinth bean) *Lupinus* species – includes: grain, sweet, white and sweet white lupines *Lens esculata* - Lentils	Alfalfa Caterpillar Aphid species[4] Armyworm[2] Bean Leaf Beetle Bean Leafskeletonizer Blister Beetle species Corn Earworm Corn Rootworm Beetle species (Adult) Cucumber Beetle species (Adult) Curculio and Weevil species[1] (foliage and pod feeding adults and larvae) European Corn Borer Fall Armyworm[2] Flea Beetle species (Adult) Flea Hopper species Grasshopper species Japanese Beetle (Adult) Leafhopper species Leaftier species Looper Species Meadow Spittlebug Painted Lady Butterfly (Larva) Plant Bug species including Lygus species[4] Stalk Borer[1] Stink Bug species Threecornered Alfalfa Hopper Thrips species[4,5] Tobacco Budworm[4] Webworm species Western Bean Cutworm Western Yellowstriped Armyworm[2] Yellowstriped Armyworm[2]	0.02-0.03	1.28-1.92
	Beet Armyworm[3,4] Leafminer species[3,4] Lesser Cornstalk Borer[3] Soybean Looper[3,4] Spider Mitespecies[3] Whitefly species[3,4]	0.03	1.92

Remarks:

- Apply as required by scouting, usually at intervals of 5 or more days. Base timing and frequency of applications on 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 gal of water per acre.

Restrictions:

- 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 (7.68 fl oz or 0.48 pt of product) per acre per season.
- For succulent and dried shelled peas and beans, **do not** graze livestock in treated areas or harvest vines for forage or hay.
- **Do not** apply as foliar broadcast application using a mechanically pressurized handgun.

[1]For control before the larva bores into the plant stalk or pods.
[2]Use higher label rates for large larvae.
[3]For suppression only
[4]See Resistance statement under Use Directions.
[5]Does not include Western Flower Thrips.

Crop	Target Pests	Rate	
		lb ai/A	fl oz/A
LEGUME VEGETABLES (SOYBEANS)			
Soybeans	Bean Leaf Beetle Cabbage Looper Corn Earworm Corn Rootworm Beetle (Adult): Mexican Northern Southern Western Cutworm species Green Cloverworm Mexican Bean Beetle Painted Lady (Thistle) Caterpillar Potato Leafhopper Saltmarsh Caterpillar Soybean Aphids[4] Threecornered Alfalfa Hopper Thrips species[5] Velvetbean Caterpillar Woollybear Caterpillar	0.015-0.025	0.96-1.60
	Armyworm[1] Blister Beetle species European Corn Borer Fall Armyworm[1] Grasshopper species Japanese Beetle (Adult) Plant Bug species Silverspotted Skipper Stink Bug species	0.025-0.03	1.60-1.92

	Tobacco Budworm[3] Webworm species Yellowstriped Armyworm[1]		
	Beet Armyworm[2,3] Lesser Cornstalk Borer[2] Soybean Looper[2,3] Spider Mitespecies[2]	0.03	1.92

Remarks:

- Apply as required by scouting, usually at intervals of 5 or more days. Base timing and frequency of applications on insect populations reaching locally determined economic thresholds.
- Apply with ground or aerial equipment using sufficient water to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gal of water per acre.
- For control of adult corn rootworm beetles (*Diabrotica* species) as part of an aerial-applied corn rootworm control program use a minimum of 0.02 lb ai (1.28 fl oz of product) per acre.

Restrictions:

- **Do not** apply within 30 days of harvest.
- **Do not** apply more than 0.06 lb ai (3.84 fl oz or 0.24 pt of product) per acre per season.
- **Do not** graze or harvest treated soybean forage, straw, or hay for livestock feed.
- **Do not** apply as foliar broadcast application using a mechanically pressurized handgun.

[1]Use higher label rates for large larvae.
[2]Suppression only
[3]See **Resistance** statement under **Use Directions**.
[4]Use lower rates for early season applications and/or lighter populations.
[5]Does not include Western Flower Thrips.

Crop	Target Pests	Rate	
		lb ai/A	fl oz/A
LETTUCE (HEAD AND LEAF)			
	Alfalfa Looper Cabbage Looper Cutworm species Green Cloverworm Imported Cabbageworm Saltmarsh Caterpillar	0.015-0.025	0.96-1.60
	Aphid species[2,3] Armyworm Beet Armyworm[1,3] Corn Earworm Diamondback Moth[3] European Corn Borer Fall Armyworm[1] Flea Beetle species Grasshopper species Japanese Beetle (Adult) Leafhopper species Meadow Spittlebug Plant Bug species including Lygus species[3] Southern Armyworm Spider Mitespecies[2] Stink Bug species	0.02-0.03	1.28-1.92

	Tobacco Budworm[3] Vegetable Weevil (Adult) Whitefly species[2,3]		

Remarks:

- Apply as required by scouting, usually at intervals of 5 or more days. Base timing and frequency of applications on 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 gal of water per acre.

Restrictions:

- **Do not** apply within 1 day of harvest.
- **Do not** apply more than 0.3 lb ai (19.2 fl oz or 1.2 pt of product) per acre per season.
- **Do not** apply as foliar broadcast application using a mechanically pressurized handgun.

[1]For control of first and second instar only
[2]Suppression only
[3]See **Resistance** statement under **Use Directions**.

Crop	Target Pests	Rate	
		lb ai/A	fl oz/A
ONION (BULB) AND GARLIC			
	Cutworm species Leafminer species (Adult) Onion Maggot (Adult) Seed corn Maggot (Adult)	0.015-0.025	0.96-1.60
	Aphid species[2] Armyworm species[1] Flower Thrips[2,3] Onion Thrips[3] Plant Bug species Stink Bug species Tobacco Thrips[3] Western Flower Thrips[2,3]	0.02-0.03	1.28-1.92

Remarks:

- Apply as required by scouting, usually at intervals of 5 or more days. Base timing and frequency of applications on insect populations reaching locally determined economic thresholds.
- Use the higher label rates as thrips population increases and avoid rescue situations.
- Apply with ground or air equipment using sufficient water and application methods to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gal of water per acre.
- For thrips control by aerial application, the addition of 1% COC v/v, 1/4% NIS v/v or a silicone adjuvant (follow manufacturers use directions) may enhance the deposition of the spray and increase plant coverage.

Restrictions

- **Do not** apply within 14 days of harvest.
- **Do not** apply more than 0.24 lb ai (15.36 fl oz or 0.96 pt of product) per acre per season.
- **Do not** apply as foliar broadcast application using a mechanically pressurized handgun.

[1]For control of the first and second instar only
[2]Suppression only
[3]See Resistance statement under Use Directions.

Crop	Target Pests	Rate	
		lb ai/A	fl oz/A
PEANUTS			
	Cutworm species Green Cloverworm Potato Leafhopper Rednecked Peanut Worm Threecornered Alfalfa Hopper Velvetbean Caterpillar	0.015-0.025	0.96-1.60
	Bean Leaf Beetle Corn Earworm Fall Armyworm[1] Grasshopper species Southern Corn Rootworm (Adult) Stink Bug species Tobacco Thrips Vegetable Weevil Whitefringed Beetle (Adult)	0.02-0.03	1.28-1.92
	Aphid species[2] Beet Armyworm[2,3] Lesser Cornstalk Borer[2] Soybean Looper[2,3] Spider Mitespecies[2]	0.03	1.92

Remarks:

- Apply as required by scouting, usually at intervals of 7 or more days. Base timing and frequency of applications on insect populations reaching locally determined economic thresholds.
- Apply with ground or aerial equipment using sufficient water to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gal of water per acre.

Restrictions:

- **Do not** apply within 14 days of harvest.
- **Do not** apply more than 0.12 lb ai (7.68 fl oz or 0.48 pt of product) per acre per season.

[1]Use higher label rates for large larvae.
[2]Suppression only
[3]See **Resistance** statement under **Use Directions**.

Crop	Target Pests	Rate	
		lb ai/A	fl oz/A
POME FRUITS			
Apple Crabapple Loquat Mayhaw Oriental Pear Pear Quince	Apple Aphid Apple Maggot (Adult) Cherry Fruit Fly species (Adult) Codling Moth Green Fruitworm Japanese Beetle Leafhopper species Leafroller species Lesser Appleworm Omnivorous Leafroller	0.02-0.042	1.28-2.56

	Orange Tortrix Oriental Fruit Moth Pear Psylla[1] Pear Sawfly Periodical Cicada Plant Bug species Plum Curculio Rosy Apple Aphid San Jose Scale (fruit infestations only) Spirea Aphid[1] Stink Bug species Tent Caterpillar species Tentiform Leaf Miner species Tree Borer species Tufted Apple Budworm Webworm species		

Remarks:

- Apply as required by scouting, usually at intervals of 5 or more days. Base timing and frequency of applications on insect populations reaching locally determined economic thresholds and IPM recommendations.
- 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 gal of water per acre, but use higher volumes as appropriate for thorough coverage.

Restrictions:

- **Do not** apply within 21 days of harvest.
- **Do not** apply more than 0.2 lb ai (12.8 fl oz or 0.80 pt of product) per acre per year.
- **Do not** apply more than 0.16 lb ai (10.24 fl oz or 0.64 pt of product) per acre per year post bloom.
- **Do not** apply more than 0.042 lb ai (2.56 fl oz or 0.16 pt of product) per acre per application.

[1]Suppression only

Crop	Target Pests	Rate	
		lb ai/A	fl oz/A
STONE FRUITS			
Apricot Chickasaw Plum Damson Plum Japanese Plum Nectarine Peach Plum Plumcot Prune Sweet and Tart Cherry	American Plum Borer Apple Maggot (Adult) Black Cherry Aphid Cherry Fruit Fly species (Adult) Codling Moth Green Fruitworm Japanese Beetle June Beetle Leafhopper species Leafroller species Oriental Fruit Moth Peach Twig Borer Peachtree Borer species Pear Sawfly Periodical Cicada	0.02-0.042	1.28-2.56

	Plant Bug species Plum Curculio Rose Chafer Stink Bug species Tent Caterpillar species Thrips species		

Remarks:

- Apply as required by scouting, usually at intervals of 5 or more days. Base timing and frequency of applications on insect populations reaching locally determined economic threshold and IPM recommendations.
- 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 5 gal of water per acre, but use higher volumes as appropriate for thorough coverage.

Restrictions:

- **Do not** apply within 14 days of harvest.
- **Do not** apply more than 0.2 lb ai (12.8 fl oz or 0.80 pt of product) per acre per year.
- **Do not** apply more than 0.16 lb ai (10.24 fl oz or 0.64 pt of product) per acre per year post bloom.
- **Do not** apply more than 0.042 lb ai (2.56 fl oz or 0.16 pt of product) per acre per application.

Crop	Target Pests	Rate	
		lb ai/A	fl oz/A
SUGARCANE			
	Mexican Rice Borer[1] Pygmy Mole Cricket Rice Stalk Borer[1] Sugarcane Aphid[3] Sugarcane Beetle (Adult)[2] Sugarcane Borer[1] West Indian Cranefly Yellow Sugarcane Aphid[3]	0.025-0.04	1.60-2.56

Remarks:

- Apply as required by scouting, usually at intervals of 7 or more days. Base timing and frequency of applications on 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 gal of water per acre.

Restrictions:

- **Do not** apply within 21 days of harvest.
- **Do not** apply more than 0.16 lb ai (10.24 fl oz or 0.64 pt of product) per acre 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 **Use Directions**.

Crop	Target Pests	Rate	
		lb ai/A	fl oz/A
SUNFLOWER			
	Cutworm species Sunflower Beetle	0.015-0.025	0.96-1.60
	Banded Sunflower Moth Fall Armyworm[1] Grasshopper species Head-Clipper Weevil (Adult) Japanese Beetle (Adult) Leafhopper species Meadow Spittlebug Painted Lady (Thistle) Caterpillar Seed Weevil (Adult) Spotted Cabbage Looper Stem Weevil (Adult) Stink Bug species Sunflower Maggot (Adult) Sunflower Moth Woollybear Caterpillar	0.02-0.03	1.28-1.92
	Beet Armyworm[2,3] Spider Mitespecies[2]	0.03	1.92

Remarks:

- Apply as required by scouting, usually at intervals of 5 or more days. Base timing and frequency of applications on 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 gal of water per acre.

Restrictions:

- **Do not** apply within 45 days of harvest.
- **Do not** apply more than 0.12 lb ai (7.68 fl oz or 0.48 pt of product) per acre per season.
- **Do not** apply more than 0.09 lb ai (5.76 fl oz or 0.36 pt of product) per acre per season after bloom initiation.
- **Do not** apply as an ultra-low volume (ULV) spray.

[1]Use higher label rates for large larvae.
[2]Suppression only
[3]See **Resistance** statement under **Use Directions**.

Crop	Target Pests	Rate	
		lb ai/A	fl oz/A
TOBACCO			
	Armyworm species[1] Blister Beetle species Cabbage Looper Corn Earworm Cucumber Beetle species (Adult) Cutworm species Grasshopper species Japanese Beetle (Adult) Katydid species	0.015-0.03	0.96-1.92

	Plant Bug species[3] Potato Tuberworm Salt Marsh Caterpillar Stinkbug species Tobacco Aphid species[2,3] Tobacco Budworm[3] Tobacco Flea Beetle (Adult) Tobacco Hornworm Tobacco Thrips species[2] Tomato Hornworm Tree Cricket species Vegetable Weevil (Adult) Webworm species		

Remarks:

- Apply as required by scouting, usually at intervals of 7 or more days. Base timing and frequency of applications on 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 gal of water per acre.

Restrictions:

- **Do not** apply within 40 days of harvest.
- **Do not** apply more than 0.09 lb ai (5.76 fl oz or 0.36 pt of product) per acre per year.
- **Do not** apply as foliar broadcast application using a mechanically pressurized handgun.

[1]For control of first and second instars only
[2]Suppression only
[3]See **Resistance** statement under **Use Directions.**

Crop	Target Pests	Rate	
		lb ai/A	fl oz/A
TREE NUTS			
Almond Beech Nut Brazil Nut Butternut Cashew Chestnut Chinquapin Filbert (Hazlenut) Hickory Nut Macadamia Nut (Bush Nut) Pistachio Walnut, Black Walnut, English (Persian)	Ants Chinch Bug Codling Moth Filbertworm Leaffooted Bug Leafroller species Navel Orange worm Peach Twig Borer Plant Bug species Stink Bug species Walnut Aphid Walnut Husk Fly species (Adult)	0.02-0.04	1.28-2.56
Pecan	Hickory Shuckworm Pecan Aphid species Pecan Casebearer species Pecan Phylloxera species Pecan Spittlebug Pecan Weevil Stink Bug species	0.02-0.04	1.28-2.56

Remarks:

- Apply as required by scouting, usually at intervals of 5 or more days. Base timing and frequency of applications on 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 gal of water/per acre, but use higher labeled rates as appropriate for thorough coverage.

Restrictions:

- **Do not** apply within 14 days of harvest.
- **Do not** apply more than 0.16 lb ai (10.24 fl oz or 0.64 pt of product) per acre per year.
- **Do not** apply more than 0.12 lb ai (7.68 fl oz or 0.48 pt of product) per acre per year post bloom.

Crop	Target Pests	Rate	
		lb ai/A	fl oz/A
TUBEROUS AND CORM VEGETABLES			
Arracacha Arrowroot Artichoke (Chinese and Jerusalemonly) Canna (edible)	Cutworm species Leafhopper species Saltmarsh Caterpillar Sweet Potato Hornworm Woolybear Caterpillar species	0.015-0.025	0.96-1.60
Cassava (bitter and sweet) Chayote (root) Chufa Dasheen Ginger Leren Potato Sweet Potato Tanier Turmeric Yam (bean and true)	Aphid species[1] Armyworm species[1] Blister Beetle species Colorado Potato Beetle[1] Corn Earworm Cricket species Cucumber Beetle species (adults) European Corn Borer Flea Beetle species (adults) Grasshopper species Looper species[1] Lygus Bug species[1] Plant Bug species Potato Psyllid Potato Tuberworm Stink Bug species Sweet Potato Leaf Beetle (adults) Sweet Potato Vine Borer Thrips species[1,2] Tortoise Beetle species Webworm species Weevil species (adults)	0.02-0.03	1.28-1.92
	Leafminer species[1,3] Spider Mite species[3] Whitefly species[1,3]	0.03	1.92

Remarks:

- Apply as required by scouting, usually at intervals of 7 or more days. Base timing and frequency of applications on insect populations reaching locally determined economic thresholds.

- Apply with ground or air equipment using sufficient water and application methods to obtain full coverage of all above ground plant parts. When applying by air, apply in a minimum of 2 gal total solution per acre. When applying by ground, a minimum of 10 gal total solution per acre is recommended.
- Use higher application volumes and/or labeled rates when foliage is dense, pest populations are high, larvae are large, weather conditions are adverse and/or as plant size increases. Use higher labeled rates for longer residual.
- 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 **AVALAIRE LAMBDA CYHALOTHRIN 250 G/L.**

Restrictions:

- **Do not** apply more than 0.12 lb ai (7.68 fl oz or 0.48 pt of product) per acre per season.
- **Do not** apply within 7 days of harvest.
- **Do not** apply as foliar broadcast application using a mechanically pressurized handgun.

[1]See Resistance statement under Use Directions.
[2]Does not include Western Flower Thrips.
[3]Suppression only

Crop	Target Pests	Rate	
		lb ai/A	fl oz/A
CONIFER AND DECIDUOUS TREES			
Plantations and Nurseries	Bagworm Balsam Twig Aphid Balsam Wooly Aphid Birch Leafminer Black Pine Weevil Elm Leaf Beetle European Elm Bark Beetle Gypsy Moth Japanese Beetle June Beetle species Leaf Beetle species Leafroller species May Beetle species Mealybug species[1] Pales Weevil Pine Chafer Pine Colaspis Beetle Pine Conelet Bug Pine Leaf Chermid Pine Needle Scale Pine Sawfly species Pine Tip Moth species Pine Tortoise Scale Pine Weevil species Poplar Aphid species Sawfly species Spittlebug species Spruce Budworm Tent Caterpillar species	0.02-0.04	1.28-2.56

	Tussock Moth species Webworm species		

Remarks:

- To control exposed foliage, flower, cone, seed and bark feeding insects, apply as required by scouting. Base timing and frequency of applications on 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 gal of water per acre.
- Mixers, loaders, and applicators supporting foliar broadcast spray, drench, soil, or ground directed liquid treatments using a mechanically pressurized handgun to nurseries must wear long-sleeved shirt, long pants, shoes and socks, gloves, and a minimum of a NIOSH-approved particulate filtering facepiece respirator with any R or P filter; OR a NIOSH-approved elastomeric particulate respirator with any R or P filter; OR a NIOSH-approved powered air purifying respirator with HE filters

Restrictions:

- **Do not** apply more than 0.24 lb ai (15.36 fl oz or 0.96 pt of product) per acre per year.

[1]Suppression only

Crop	Target Pests	Rate	
		lb ai/A	fl oz/A
CONIFER AND DECIDUOUS TREES			
Seed Orchards	Coneworm species Seed Bug species Thrips species	See Remarks	See Remarks

Remarks:

- For high volume sprayers, dilute 2.56 fl oz per 100 gal of water and apply 5-10 gal of finished spray per tree.
- For low volume sprayers, dilute 10 fl oz per 100 gal of water and apply 100 gal of finished spray per acre.
- For aerial applications, apply 7.5 fl oz per acre in a minimum of 10 gal finish spray per acre.

Restrictions:

- **Do not** apply more than 0.5 lb ai (32 fl oz or 2 pt of product) per acre per year.
- **Do not** apply as a foliar broadcast, soil, drench, or ground-directed application using a mechanically pressurized handgun on orchards.

The following use does not fall within the scope of the Worker Protection Standard for agricultural pesticides (40CFR Part 170).

Use Site	Target Pests	Rate	
		lb ai/A	fl oz/A
Non-Cropland (Excluding Public Land)	See Crop Outlets on this **AVALAIRE LAMBDA CYHALOTHRIN 250 G/L** label for target pests and rates.	See Crop Outlets	See Crop Outlets

Remarks:

- 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.

Restrictions:

- **Do not** exceed 0.2 lb ai (12.8 fl oz or 0.8 pt of product) per acre per year.
- **Do not** graze livestock in treated areas.

Rate Conversion Chart

Lb ai per Acre	Fl oz per Acre	Pints per Acre	Treated Acres per Gal
0.015	0.96	0.06	133
0.02	1.28	0.08	100
0.025	1.60	0.10	80
0.03	1.92	0.12	67
0.035	2.24	0.14	57
0.04	2.56	0.16	50

STORAGE AND DISPOSAL

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

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

Pesticide Disposal: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

Container Handling:

[plastic containers ≤ 5 gallons]: Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use and disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

[plastic containers > 5 gallons]: Nonrefillable container: Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple Rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Recap and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by other procedures allowed by state and local authorities.

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

LIMITATION OF WARRANTY AND LIABILITY

IMPORTANT: READ BEFORE USE. Read the entire Directions for Use, Conditions of Warranties and Limitations of Liability before using this product. If these terms and conditions are not acceptable, return the unopened product container at once. By using this product, user or buyer accepts the following Disclaimer of Warranties and Limitations of Liability. **CONDITIONS:** The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Ineffectiveness, injury, and other unintended consequences may result because of such factors as manner of use or application (including misuse), the presence of other materials, weather conditions, and other unknown factors, all of which are beyond the control of AVALAIRE, LLC. To the extent consistent with applicable law, all such risks shall be assumed by the user or buyer.

DISCLAIMER OF WARRANTIES: To the extent consistent with applicable law, AVALAIRE, LLC makes no other warranties, express or implied, of merchantability or of fitness for a particular purpose or otherwise, that extend beyond statements on this label. **LIMITATIONS OF LIABILITY:** To the extent consistent with applicable law, neither AVALAIRE, LLC the manufacturer, nor the Seller shall be liable for any indirect, special, incidental or consequential damages resulting from the use, handling, application, storage, or disposal of this product. To the extent consistent with applicable law, the exclusive remedy of the user or buyer for any and all losses, injuries or damages resulting from the use, handling, application, or storage of this product, whether in contract, warranty, tort, negligence, strict liability or otherwise, shall not exceed the purchase price paid.

{LANGUAGE ON LABEL AFFIXED TO CONTAINER}

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-CYHALOTHRIN	GROUP	3A	INSECTICIDE

AVALAIRE LAMBDA CYHALOTHRIN 250 G/L[™]

[*Alternate Brand Name: Kavalon with RazorCap Technology*]

[Contains lambda-cyhalothrin, the active ingredient used in Warrior II with Zeon Technology®.]

ACTIVE INGREDIENT:	**(% by weight)**
Lambda-cyhalothrin[1,2]	22.8%
OTHER INGREDIENTS:	77.2%
TOTAL	100.0%

Contains 2.08 lb of active ingredient per gallon and is a capsule suspension.

[1]CAS No. 91465-08-6

[2]Synthetic pyrethroid

KEEP OUT OF REACH OF CHILDREN

WARNING/AVISO

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

FIRST AID	
If swallowed:	• Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • 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 on skin or clothing:	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
If inhaled:	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. • Call a poison control center or doctor for further treatment advice.
If in eyes:	• Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact SafetyCall at **1-984-465-4791** for emergency medical treatment information.	

For Chemical Emergency:

Spill, Leak, Fire, Exposure, or Accident, Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 or +1 703-527-3887 (collect calls accepted)

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

WARNING/AVISO

May be fatal if swallowed. Harmful if absorbed through skin. Harmful if inhaled. Avoid contact with eyes, skin or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco. Remove and wash contaminated clothing before reuse.

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

ENVIRONMENTAL HAZARDS: This pesticide is extremely toxic to fish and aquatic organisms and toxic to wildlife.

For terrestrial uses: 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 washwater.

Non-target organism advisory:

This product is highly toxic to bees and other pollinating insects exposed to direct treatment or to residues in/on blooming crops or weeds. **Protect pollinating insects by following label directions intended to minimize drift and reduce pesticide risk to these organisms.**

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store in original containers only. Keep container closed when not in use. Do not store near food or feed. In case of spill or leak on floor or paved surfaces, soak up with sand, earth, or synthetic absorbent. Remove to chemical waste area. DO NOT ALLOW PRODUCT TO FREEZE.

PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

CONTAINER HANDLING:

[For plastic containers ≤ 5 gallons: Nonrefillable Container: Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use and disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

[For plastic containers > 5 gallons: Nonrefillable container: Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple Rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Recap and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by other procedures allowed by state and local authorities.]

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

See inside label booklet for additional Precautionary Statements and Directions for Use.

[Kavalon with RazorCap Technology is not manufactured, or distributed by Syngenta, seller of Warrior II with Zeon Technology®.]

{Note to reviewer: The Contains Statement and disclaimer will both appear on the front panel, if used on the final product packaging, in close proximity to each other.}

Manufactured for:
Avalaire, LLC
1705 Towanda Ave
Bloomington, IL 61701

EPA Reg. No.: 93930-XX
EPA Est. No.: _____
NET CONTENTS: _____