

## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

February 21, 2022

Kristen Cianni Regulatory Specialist Avalaire, LLC 1204 Village Market Place, #173 Morrisville, NC 27560

Subject: Registration Review Label Mitigation for Pyriproxyfen

Product Name: AVALAIRE PYRIPROX 0.86 EC

EPA Registration Number: 93930-9 Application Date: February 27, 2020

Decision Number: 560307

Dear Ms. Cianni:

The Agency, in accordance with the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, has completed reviewing all the information submitted with your application to support the Registration Review of the above referenced product in connection with the Pyriproxyfen Interim Decision, and has concluded that your submission is acceptable. The label referred to above, submitted in connection with registration under FIFRA, as amended, is acceptable.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act 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) list 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.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 12 months from the date of this letter. After 12 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

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If you have any questions about this letter, please contact Marisa Wright by phone at 202-566-2335, or via email at wright.marisa@epa.gov.

Sincerely,

Linda Arrington, Branch Chief

Risk Management and Implementation Branch 4

Pesticide Re-Evaluation Division

Office of Pesticide Programs

Enclosure

[Note to reviewer: [Text] in brackets denotes optional text].

[Note to reviewer: {Text} in braces denotes where in the final label text will appear.]

## **{BOOKLET FRONT PANEL LANGUAGE}**

PYRIPROXYFEN	GROUP	7	INSECTICIDE

## Avalaire Pyriprox<sup>[TM]</sup> 0.86 EC

Contains pyriproxyfen, the active ingredients used in [Knack\*]

## [Insect Growth Regulator]

ACTIVE INGREDIENT:	(% by weight)
Pyriproxyfen*:	11.23%
OTHER INGREDIENTS:	<u>88.77%</u>
TOTAL:	100.00%
*(2-[1-methyl-2-(4-phenoxyphenoxy)ethoxy]pyridine)	

Contains 0.86 pound ai per gallon.

Contains aromatic petroleum distillates.

## **KEEP OUT OF REACH OF CHILDREN**

## **CAUTION**

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,] [Precautionary Statements] and [Directions for Use].

[Avalaire Pyriprox<sup>[TM]</sup> 0.86 EC] is not manufactured, or distributed by Valent U.S.A. Corporation, seller of [Knack®].

EPA Reg. No.: 93930-9

**EPA Est. No.:** 

**Net Contents:** 

Manufactured for: Avalaire, LLC 1204 Village Market Place, #173 Morrisville, NC 27560

ACCEPTED

Feb 21, 2022

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 93930-9

## **{LANGUAGE INSIDE BOOKLET}**

Take off agreeming and electrics			
Take off contaminated clothing.			
Rinse skin immediately with plenty of water for 15-20 minutes.			
Call a poison control center or doctor for further treatment advice.			
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.			
Immediately call a poison control center or doctor.			
Do not induce vomiting unless told to do so by a poison control center or doctor.			
Do not give any liquid to the person.			
Do not give anything by mouth to an unconscious person.			
Move person to fresh air.			
If person is not breathing, call 911 or an ambulance, then give artificial respiration,			
preferably by mouth-to-mouth, if possible.			
Call a poison control center or doctor for further treatment advice.			
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 **1-844-685-9173** for emergency medical treatment information.

## **NOTE TO PHYSICIAN**

If ingested, probable mucosal damage may contraindicate the use of gastric lavage. This product contains a light hydrocarbon liquid; ingestion or subsequent vomiting can result in aspiration of this product, which can cause pneumonitis.

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 CAUTION

Causes skin and eye irritation. Do not get on skin, in eyes or on clothing. Harmful if inhaled, swallowed or absorbed through skin. Avoid contact with skin, eyes or clothing. Avoid breathing vapor or spray mist. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove contaminated clothing and wash clothing before reuse.

## PERSONAL PROTECTIVE EQUIPMENT (PPE):

## Applicators and other handlers must wear:

- Coveralls over short-sleeved shirt and short pants or long-sleeved shirt and long pants,
- Chemical-resistant gloves, such as Barrier Laminate or Viton ≥ 14 mils,
- Chemical-resistant footwear plus socks,
- Chemical-resistant headgear for overhead exposure,
- Chemical-resistant apron when cleaning equipment, mixing or loading.

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

## **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 toxic to fish and aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high-water mark. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water by disposing of equipment washwaters or rinsate. Avoid direct application and/or spray drift to bee hives.

[Note to EPA reviewer: If this product is shipped in containers greater than 50 lbs, the following environmental hazard statement will be added to the label:]

[Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other water unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.]

## **DIRECTIONS FOR USE**

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

READ ENTIRE LABEL. USE STRICTLY IN ACCORDANCE WITH PRECAUTIONARY STATEMENTS AND DIRECTIONS, AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS.

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

## **AGRICULTURAL USE REQUIREMENTS**

Use this product only in accordance with its labeling and with the Worker Protection Standard (WPS), 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 (REI). The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard (WPS).

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the WPS and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls over short-sleeved shirt and short pants,
- Chemical-resistant gloves, such as Barrier Laminate or Viton > 14 mils,
- Chemical-resistant footwear plus socks,
- Chemical-resistant headgear for overhead exposure.

## **TANK MIXES**

**NOTICE:** Tank mixing or use of this product with any other product which is not specifically and expressly authorized by the label shall be the exclusive risk of user, applicator and/or application advisor, to the extent allowed by applicable law.

Read and follow the entire label of each product to be used in the tank mix with this product.

## **RESISTANCE MANAGEMENT RECOMMENDATIONS**

For resistance-management, **Avalaire Pyriprox 0.86 EC** contains a Group 7 insecticide. Any insect population may contain individuals naturally resistant to **Avalaire Pyriprox 0.86 EC** and other Group 7 insecticides. The resistant individuals may dominate the insect population if this group of insecticides are used repeatedly in the same fields. Appropriate resistance management strategies should be followed.

To delay insecticide resistance, take the following steps:

- Rotate the use of Avalaire Pyriprox 0.86 EC or other Group 7 insecticides within a growing season, or among growing seasons, with different groups that control the same pests. Avoid application of more than the maximum seasonal use rate or the total number of consecutive sprays of Avalaire Pyriprox 0.86 EC per season.
- Use tank mixtures with insecticides from a different group that are equally effective on the target pest when such use is permitted. Do not rely on the same mixture repeatedly for the same pest population. Consider any known cross-resistance issues (for the targeted pests) between the individual components of a mixture. In addition, consider the following recommendations provided by the Insecticide Resistance Action Committee (IRAC):
  - o Individual insecticides selected for use in mixtures should be highly effective and be applied at the rates at which they are individually registered for use against the target species.
  - Mixtures with components having the same IRAC mode of action classification are not recommended for insect resistance management.
  - When using mixtures, consider any known cross-resistance issues between the individual components for the targeted pest(s).
  - 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.

## **SPRAY DRIFT**

## **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 use a fine or coarser droplet size (ASABE S572.1), except for when applying ultra-low volume applications.
- Applicators must use ½ swath displacement upwind at the downwind edge of the field.
- Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- Do not apply when wind speeds exceed 15 miles per hour at the application site.
- If the windspeed 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.
- Do not apply during temperature inversions.

## **Airblast Applications**

- All sprays must be directed into the canopy.
- Nozzles directed out of the orchard must be turned off when treating the outer row, or when making turns between rows.
- Do not apply when wind speeds exceed 15 miles per hour at the application site.
- Do not apply during temperature inversions.

## **Groundboom Applications**

- User must only apply with the nozzle height recommended by the manufacturer, but no more than 4 feet above the ground or crop canopy.
- Applicators are required to use a fine or coarser droplet size (ASABE S572.1).
- 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 manufacturer's 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. Avoid applications during temperature inversions.

#### **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.

## PRODUCT INFORMATION

• Do not apply this product through any type of irrigation system.

Avalaire Pyriprox 0.86 EC is intended for use in Integrated Pest Management (IPM) or Insect Resistance Management (IRM) programs. Avalaire Pyriprox 0.86 EC will not control insect adults, and it is recommended to be used in combination and/or rotation with other IPM or IRM materials. Contact your local state extension service for details.

**Avalaire Pyriprox 0.86 EC** acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. **Avalaire Pyriprox 0.86 EC** has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since **Avalaire Pyriprox 0.86 EC** is an Insect Growth Regulator (IGR) and activity depends on the insect's development, evidence of activity will be slower than typical contact insecticides.

## ARTICHOKE (GLOBE)

**GENERAL:** Avalaire Pyriprox 0.86 EC acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. Avalaire Pyriprox 0.86 EC has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since Avalaire Pyriprox 0.86 EC is an Insect Growth

Regulator (IGR) and activity depends on the insect's development, evidence of activity will be slower than typical contact insecticides.

**Avalaire Pyriprox 0.86 EC** does exhibit translaminar movement which means that **Avalaire Pyriprox 0.86 EC** applied to the upper surfaces of the leaves will move to the lower surface of the leaf. This translaminar movement is very important to chemical control of whitefly since one of the major obstacles is getting the product to the underside of the leaves where whitefly are present.

PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS
Artichoke Plum Moth Banded Wing Whitefly Greenhouse Whitefly Silverleaf Whitefly	8 to 10 fl ozs	Apply with ground equipment in adequate water for uniform coverage (10 to 50 gals/A).  HIGHER WATER VOLUMES MAY PROVIDE IMPROVED INSECT CONTROL.
Sweetpotato Whitefly		Begin applications when whiteflies reach threshold levels per University/Extension recommendations (e.g., 3 to 5 adults per leaf and/or equivalent levels of immatures).
		Under severe pressure, use the higher recommended rates.
		Only whole fields should be treated.

**Avalaire Pyriprox 0.86 EC** may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management (IPM) and Insect Resistance Management (IRM) programs.

- Do not apply within 7 days of harvest.
- Do not make more than 2 **Avalaire Pyriprox 0.86 EC** applications per growing season.
- Do not exceed 20 fl ozs of **Avalaire Pyriprox 0.86 EC** per acre per calendar year.
- Do not apply earlier than 14 days after last **Avalaire Pyriprox 0.86 EC** treatment.
- Regardless of formulation, do not apply more than 0.134 lb pyriproxyfen per acre per calendar year.
- Do not plant any crop other than those with registered pyriproxyfen uses in treated areas sooner than 30 days after the last application.

MANAGING INSECT RESISTANCE: Repeated use of the same class of insecticides or insecticides with similar modes of action can lead to the buildup of resistant whitefly strains. To optimize resistance management practices, Avalaire, LLC is restricting Avalaire Pyriprox 0.86 EC to no more than two applications per growing season. Avalaire Pyriprox 0.86 EC may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Avalaire, LLC also does not recommend using rates below 8 fl ozs per acre for whitefly control because reduced rates can lead to a greater potential for resistance development. Follow local, state and federal IPM and IRM recommendations. Read and follow all product labels before applying any insecticide.

## ASPARAGUS[\*]

**Avalaire Pyriprox 0.86 EC** does exhibit translaminar movement which means that **Avalaire Pyriprox 0.86 EC** applied to the upper surfaces of the leaves will move to the lower surface of the leaf. This translaminar movement is very important to chemical control of whitefly since one of the major obstacles is getting the product to the underside of the leaves where whitefly are present.

PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS
Whitefly	8 to 10 fl ozs	Apply with ground equipment in adequate water for uniform coverage (10 to 50 gals/A).
		HIGHER WATER VOLUMES MAY PROVIDE IMPROVED INSECT CONTROL.
		Begin applications when whiteflies reach threshold levels per University/Extension recommendations (e.g., 3 to 5 adults per leaf and/or equivalent levels of immatures).
		Under severe pressure, use the higher recommended rates.
		Only whole fields should be treated.

- Do not apply within 7 days of harvest.
- Do not make more than 2 Avalaire Pyriprox 0.86 EC applications per growing season.
- Do not exceed 20 fl ozs of **Avalaire Pyriprox 0.86 EC** per acre per calendar year.
- Do not apply earlier than 14 days after last **Avalaire Pyriprox 0.86 EC** treatment.
- Regardless of formulation, do not apply more than 0.134 lb pyriproxyfen per acre per calendar year.
- Do not plant any crop other than those with registered pyriproxyfen uses in treated areas sooner than 30 days after the last application.

[\*Not For Use in California]

MANAGING WHITEFLY RESISTANCE: Repeated use of the same class of insecticides or insecticides with similar modes of action can lead to the buildup of resistant whitefly strains. To optimize resistance management practices, Avalaire, LLC is restricting Avalaire Pyriprox 0.86 EC to no more than two applications per growing season. Avalaire Pyriprox 0.86 EC may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Avalaire, LLC also does not recommend using rates below 8 fl ozs per acre for whitefly control because reduced rates can lead to a greater potential for resistance development. Follow local, state and federal Integrated Pest Management (IPM) and Insect Resistance Management (IRM) recommendations. Read and follow all product labels before applying any insecticide.

## **BANANA AND PLANTAIN**

**GENERAL:** Avalaire Pyriprox 0.86 EC acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. Avalaire Pyriprox 0.86 EC has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since Avalaire Pyriprox 0.86 EC is an Insect Growth Regulator (IGR) and activity depends on the insect's development, evidence of activity will be slower than typical contact insecticides.

**Avalaire Pyriprox 0.86 EC** does exhibit translaminar movement which means that **Avalaire Pyriprox 0.86 EC** applied to the upper surfaces of the leaves will move to the lower surface of the leaf. This translaminar movement is very important to chemical control of whitefly since one of the major obstacles is getting the product to the underside of the leaves where whitefly are present.

PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS
Banded Wing Whitefly Greenhouse Whitefly Silverleaf Whitefly Sweetpotato Whitefly	13 to 16 fl ozs	Apply with air or ground equipment in adequate water for uniform coverage:  By air: 3 to 10 gals/A  By ground: 10 to 50 gals/A
		HIGHER WATER VOLUMES MAY PROVIDE IMPROVED INSECT CONTROL.
		Begin applications when whiteflies reach threshold levels per University/Extension recommendations (e.g., 3 to 5 adults per leaf and/or equivalent levels of immatures).
		Only whole fields should be treated.

- Do not apply within 14 days of harvest.
- Do not make more than 3 Avalaire Pyriprox 0.86 EC applications per growing season.
- Do not exceed 48 fl ozs of **Avalaire Pyriprox 0.86 EC** per acre per calendar year.
- Regardless of formulation, do not apply more than 0.323 lb pyriproxyfen per acre per calendar year.
- Do not apply earlier than 14 days after last **Avalaire Pyriprox 0.86 EC** treatment
- Do not plant any crop other than those with registered pyriproxyfen uses in treated areas sooner than 30 days after the last application.

MANAGING WHITEFLY RESISTANCE: Repeated use of the same class of insecticides or insecticides with similar modes of action can lead to the buildup of resistant whitefly strains. To optimize resistance management practices, Avalaire, LLC is restricting Avalaire Pyriprox 0.86 EC to no more than three applications per growing season. Avalaire Pyriprox 0.86 EC may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Avalaire, LLC also does not recommend using rates below 13 fl ozs per acre for whitefly control because reduced rates can lead to a greater potential for resistance development. Follow local, state and federal Integrated Pest Management (IPM) and Insect Resistance Management (IRM) recommendations. Read and follow all product labels before applying any insecticide.

## BERRY[\*]

## Low Growing, Except Strawberry (Subgroup 13-07H)

CROPS	PESTS	PRODUCT RATE PER ACRE	SPECIAL INSTRUCTIONS
Bearberry	Cherry Fruitworm	16 fl ozs	Apply with ground or air equipment as
Bilberry	Cranberry Fruitworm		a full coverage spray (minimum of 5
Blueberry, Lowbush	Lecanium Scale		gals/A by air or 50 gals/A by ground).
Cloudberry			Thorough coverage is critical for
Cranberry			adequate control. It is essential to use
Lingonberry			adequate water volume to ensure
Muntries			thorough coverage.

CROPS PESTS RATE SPECIAL INSTRUCTIONS PER ACRE	
1 211 10112	
Partridgeberry Cultivars, varieties, and/or hybrids of these    Additional applications of anothe insecticide, at 10 to 14-day intended may be needed under high popular pressure or sustained moth flight    Lecanium Scale: Apply at either dormant, delayed dormant or an season cover spray. At dormant delayed dormant use a spray oil:   manufacturer's recommended oil in a cover spray make application when scale crawlers first emerge Follow local recommendations regarding in-season use and rate in your area.    Avalaire Pyriprox 0.86 EC may be mixed and/or alternated with commonly insecticides to comply with local Integrated Pest Management (IPM) and Resistance Management (IRM) programs.    Do not apply within 7 days of harvest.	er vals, lation t.  ininor at the il rate. ns es of oil ly used Insect ly used ly used later alendar D.86 EC

MANAGING INSECT RESISTANCE: Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant insect strains. To optimize resistance management practices, Avalaire, LLC is restricting Avalaire Pyriprox 0.86 EC to no more than two applications per growing season. Avalaire Pyriprox 0.86 EC may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Follow local, state, and federal IPM AND IRM recommendations. Read and follow all product labels before applying any insecticide.

## **BRASSICA LEAFY VEGETABLES**

(Crop Group 5)

**Avalaire Pyriprox 0.86 EC** does exhibit translaminar movement which means that **Avalaire Pyriprox 0.86 EC** applied to the upper surfaces of the leaves will move to the lower surface of the leaf. This translaminar movement is very important to chemical control of whitefly since one of the major obstacles is getting the product to the underside of the leaves where whitefly are present.

CROPS	PESTS	PRODUCT RATE PER ACRE	SPECIAL INSTRUCTIONS
Broccoli Broccoli Raab (rapini) Brussels Sprouts Cabbage Cauliflower Cavalo Broccoli (gai lon) Chinese Cabbage (bok choy and napa) Chinese Mustard (gai choy) Collards Kale Kohlrabi Mizuna Mustard Greens	Banded Wing Whitefly Greenhouse Whitefly Silverleaf Whitefly Sweetpotato Whitefly	8 to 10 fl ozs	Apply with ground equipment in adequate water for uniform coverage (10 to 50 gals/A).  HIGHER WATER VOLUMES MAY PROVIDE IMPROVED INSECT CONTROL.  Begin applications when whiteflies reach threshold levels per University/Extension recommendations (e.g., 3 to 5 adults per leaf and/or or equivalent levels of immatures).  Under severe pressure, use the higher
Mustard Spinach Rape Greens Turnip Greens			recommended rates. Only whole fields should be treated.
	<ul> <li>Do not make growing season</li> <li>Do not exceed year.</li> <li>Do not apply treatment.</li> <li>Regardless of foper acre per cal</li> <li>Do not plant an</li> </ul>	20 fl ozs of <b>Avalai</b> earlier than 14 da ormulation, do no endar year. y crop other than t	vest.  laire Pyriprox 0.86 EC applications per re Pyriprox 0.86 EC per acre per calendar ays after last Avalaire Pyriprox 0.86 EC t apply more than 0.134 lb pyriproxyfen those with registered pyriproxyfen uses in a after the last application.

MANAGING WHITEFLY RESISTANCE: Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant whitefly strains. To optimize resistance management practices, Avalaire, LLC is restricting Avalaire Pyriprox 0.86 EC to no more than two applications per growing season. Avalaire Pyriprox 0.86 EC may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Avalaire, LLC also does not recommend using rates below 8 fl ozs/A for whitefly control because reduced rates can lead to a greater potential for resistance development. Follow local, state and federal Integrated Pest Management (IPM) and Insect Resistance Management (IRM) recommendations. Read and follow all product labels before applying any insecticide.

## **BULB VEGETABLES**

(Crop Group 3-07)

**GENERAL:** Avalaire Pyriprox 0.86 EC acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. Avalaire Pyriprox 0.86 EC has no activity on adult insects,

but hatching of eggs laid by treated adults will be suppressed. Since **Avalaire Pyriprox 0.86 EC** is an Insect Growth Regulator (IGR) and activity depends on the insect's development, evidence of activity will be slower than typical contact insecticides.

		PRODUCT		
CROPS	PESTS	RATE	SPECIAL INSTRUCTIONS	
		PER ACRE		
Garlic	Onion Thrip	8 fl ozs	FOR SUPPRESSION OF THRIPS: Apply	
Garlic, Great Headed	Western Flower Thrip		with ground equipment in adequate	
Leek			water for uniform coverage (20 to 50	
Onion, Dry Bulb			gals/A). Begin applications when thrips	
Onion, Green			reach threshold levels per	
Onion, Welsh			University/Extension. Thorough	
Shallot			coverage is critical for adequate water	
			volume to ensure thorough coverage.	
	Avalaire Pyriprox 0.86 EC may be mixed and/or alternated with commonly used			
		nsecticides to comply with local Integrated Pest Management (IPM) and Insect		
	Resistance Managemen	tance Management (IRM) programs.		
		ithin 3 days of harv		
	<ul> <li>Do not make</li> </ul>	more than 2 Ava	laire Pyriprox 0.86 EC applications per	
	growing seasor	۱.		
	<ul> <li>Do not exceed</li> </ul>	16 fl ozs of Avalai	re Pyriprox 0.86 EC per acre per calendar	
	year.			
	1	earlier than 14 da	ays after last <b>Avalaire Pyriprox 0.86 EC</b>	
	treatment.			
	<ul> <li>Regardless of f</li> </ul>	formulation, do no	t apply more than 0.108 lb pyriproxyfen	
	per acre per ca			
			those with registered pyriproxyfen uses in	
	treated areas s	ooner than 30 days	s after the last application.	

MANAGING INSECT RESISTANCE: Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant insect strains. To optimize resistance management practices, Avalaire, LLC is restricting Avalaire Pyriprox 0.86 EC to no more than two applications per growing season. Avalaire Pyriprox 0.86 EC may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Follow local, state and federal IPM and IRM recommendations. Read and follow all product labels before applying any insecticide.

## BUSHBERRY[\*]

## (Subgroup 13-07B)

		PRODUCT	
CROPS	PESTS	RATE	SPECIAL INSTRUCTIONS
		PER ACRE	
Aronia Berry Blueberry, Highbush Blueberry, Lowbush Buffalo Currant Chilean Guava Cranberry, Highbush Currant, Black	Cherry Fruitworm Cranberry Fruitworm Lecanium Scale	16 fl ozs	Apply with ground or air equipment as a full coverage spray (minimum of 5 gals/A by air or 50 gals/A by ground). Thorough coverage is critical for adequate control. It is essential to use adequate water volume to ensure thorough coverage.
Currant, Red Elderberry European Barberry Gooseberry Honeysuckle, Edible Huckleberry Jostaberry			Fruitworms: Apply when egg laying begins and again at petal fall. Additional applications of another insecticide, at 10 to 14-day intervals, may be needed under high population pressure or sustained moth flight.
Juneberry (Saskatoon Berry) Lingonberry Native Currant Salal Sea Buckthorn Cultivars, varieties, and/or hybrids of these			Lecanium Scale: Apply at either dormant, delayed dormant or an inseason cover spray. At dormant or delayed dormant use a spray oil at the manufacturer's recommended oil rate. In a cover spray make applications when scale crawlers first emerge. Follow local recommendations regarding in-season use and rates of oil in your area.
	insecticides to comply Resistance Management  Do not apply w  Do not make growing season  Do not exceed year.  Do not apply treatment.	with local Integrate (IRM) programs. ithin 7 days of harmore than 2 Avanta.  32 flozs of Avalair earlier than 14 days of armulation, do no lendar year.	and/or alternated with commonly used ted Pest Management (IPM) and Insect

MANAGING INSECT RESISTANCE: Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant insect strains. To optimize resistance management practices, Avalaire, LLC is restricting Avalaire Pyriprox 0.86 EC to no more than two applications per growing season. Avalaire Pyriprox 0.86 EC may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Follow local, state and federal IPM and IRM recommendations. Read and follow all product labels before applying any insecticide.

## CANEBERRY[\*]

## (Subgroup 13-07A)

		PRODUCT	
CROPS	PESTS	RATE	SPECIAL INSTRUCTIONS
CROPS	PESTS		SPECIAL INSTRUCTIONS
		PER ACRE	
Blackberry including:	Cherry Fruitworm	16 fl ozs	Apply with ground or air equipment as
Bingleberry	Cranberry Fruitworm		a full coverage spray (minimum of 5
Black Satin Berry	Lecanium Scale		gals/A by air or 50 gals/A by ground).
Boysenberry			Thorough coverage is critical for
Cherokee Blackberry			adequate control. It is essential to use
Chesterberry			adequate water volume to ensure
Cheyenne Blackberry			thorough coverage.
Coryberry			Fruitworms: Apply when egg laying
Darrowberry			begins and again at petal fall.
Dewberry			
Dirksen Thornless Berry			Additional applications of another
Himalayaberry			insecticide, at 10 to 14-day intervals,
Hullberry			may be needed under high population
Lavacaberry			pressure or sustained moth flight.
Lowberry			
Lucretiaberry			Lecanium Scale: Apply at either
Mammoth Blackberry			dormant, delayed dormant or an in-
Marionberry			season cover spray. At dormant or
Necterberry Olallieberry			delayed dormant use a spray oil at the
•			manufacturer's recommended oil rate.
Oregon Evergreen berry Phenomenalberry			In a cover spray make applications
Rangerberry			when scale crawlers first emerge.
Ravenberry			Follow local recommendations
Rossberry			regarding in-season use and rates of oil
Shawnee Blackberry			
Loganberry	Acceleius Demissus 0.00	FC	in your area.
Raspberry, including:		· ·	and/or alternated with commonly used
Bababerry		_	ted Pest Management (IPM) and Insect
Black raspberry	Resistance Management	t (IRM) programs.	
Blackcap	<ul> <li>Do not apply w</li> </ul>	ithin 7 days of harv	vest.
Caneberry	<ul> <li>Do not make</li> </ul>	more than 2 <b>Ava</b>	laire Pyriprox 0.86 EC applications per
Framboise	growing season	١.	
Frambueso			re Pyriprox 0.86 EC per acre per calendar
Himbeere		32 11 023 01 Avaidii	er yriprox oldo Ee per dere per calendar
Keriberry	year.	aarliar +ba 11 -l-	ove often last Avalaira Diminus 0.00 50
Mayberry		earlier than 14 da	ays after last <b>Avalaire Pyriprox 0.86 EC</b>
Red raspberry	treatment.		
Thimbleberry	_		t apply more than 0.215 lb pyriproxyfen
Tulameen	per acre per cal	lendar year.	
Yellow raspberry	[*Not for use in Californ	ia.]	
Wild raspberry			
Youngberry			
Cultivars, varieties, and/or			
hybrids of these			
,			

MANAGING INSECT RESISTANCE: Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant insect strains. To optimize resistance management practices, Avalaire, LLC is restricting Avalaire Pyriprox 0.86 EC to no more than two applications per growing season. Avalaire Pyriprox 0.86 EC may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Follow local, state and federal IPM and IRM recommendations. Read and follow all product labels before applying any insecticide.

## **CITRUS FRUIT**

## (Crop Group 10-10)

CROPS	PESTS	PRODUCT RATE PER ACRE	SPECIAL INSTRUCTIONS
Australian Desert Lime Australian Finger-lime Australian Round Lime Brown River Finger Lime Calamondin Citron Citrus hybrids Grapefruit Japanese Summer Grapefruit Kumquat Lemon Lime Mediterranean Mandarin Mount White Lime New Guinea Wild Lime Orange, Sour Orange, Sweet Pummelo Russell River Lime Satsuma Mandarin Sweet Lime Tachibana Orange Tahiti Lime Tangelo	Black Scale Brown Soft Scale California Red Scale Florida Red Scale Snow Scale	16 fl ozs	Apply with ground equipment in 200 to 1500 gals/A. Apply in sufficient water volume for tree size. Thorough coverage is critical for control. It is essential to use adequate water volume to ensure thorough coverage.  Apply any time prior to fruit becoming infested when scale is in the crawler stage. Application at the 2 <sup>nd</sup> or 3 <sup>rd</sup> generation of scale may result in excessive dead scale remaining on the fruit at harvest. Thorough coverage is essential for good control.  Avalaire Pyriprox 0.86 EC may be applied with superior spray oils at ½ to 1%. Follow the manufacturer's directions and recommendations on timing and rates.  NOTE: For scale apply during emergence of scale crawlers, do not apply more than 16 fl ozs of Avalaire Pyriprox 0.86 EC per acre per year.
Tangerine (mandarin) Tangor Trifoliate Orange Uniq Fruit Cultivars, varieties, and/or hybrids of these	Citrus Black Fly Citrus Leafminer Citrus Whitefly	10 fl ozs	Apply with ground equipment in 200 to 1500 gals/A. Apply in sufficient water volume for tree size. Thorough coverage is critical for control. It is essential to use adequate water volume to ensure thorough coverage.

Apply when pests are just beginning to build and before infestation has occurred. Thorough coverage is essential for good control.
NOTE: Do not make more than 2 applications of <b>Avalaire Pyriprox 0.86 EC</b> per acre per year.

**Avalaire Pyriprox 0.86 EC** may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management (IPM) and Insect Resistance Management (IRM) programs.

- Do not apply within 1 day of harvest.
- Do not exceed 26 fl ozs of **Avalaire Pyriprox 0.86 EC** per acre per calendar year.
- Do not apply earlier than 21 days after last **Avalaire Pyriprox 0.86 EC** treatment.
- Regardless of formulation, do not apply more than 0.175 lb pyriproxyfen per acre per calendar year.

MANAGING INSECT RESISTANCE: Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant insect strains. To optimize resistance management practices, Avalaire, LLC is restricting Avalaire Pyriprox 0.86 EC to no more than two applications per growing season. Avalaire Pyriprox 0.86 EC may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Follow local, state and federal IPM and IRM recommendations. Read and follow all product labels before applying any insecticide.

## **COTTON**

**GENERAL:** Avalaire Pyriprox 0.86 EC acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. Avalaire Pyriprox 0.86 EC has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since Avalaire Pyriprox 0.86 EC is an Insect Growth Regulator (IGR) and activity depends on the insect's development, evidence of activity will be slower than typical contact insecticides.

A118.0 does exhibit translaminar movement which means that **Avalaire Pyriprox 0.86 EC** applied to the upper surfaces of the leaves will move to the lower surface of the leaf. This translaminar movement is very important to chemical control of whitefly since one of the major obstacles is getting the product to the underside of the leaves where whitefly are present.

PESTS	PRODUCT RATE PER ACRE	SPECIAL INSTRUCTIONS
Banded Wing Whitefly	8 to 10 fl ozs	Apply with air or ground equipment in adequate water for
Greenhouse Whitefly		uniform coverage:
Silverleaf Whitefly		By Air: 3 to 10 gals/A
Sweetpotato Whitefly	Do not apply less than 8 fl ozs/A.	By Ground: 10 to 50 gals/A
		HIGHER WATER VOLUMES MAY PROVIDE IMPROVED
		INSECT CONTROL.
		Make only one application per growing season.
		Begin application when whiteflies reach threshold levels per University/Extension recommendations (e.g., 3 to 5 adults per leaf and/or equivalent levels of immatures).
		Under severe pressure, use the higher recommended rates.
		Only whole fields should be treated.

- Do not apply within 28 days of harvest.
- Do not make more than 1 Avalaire Pyriprox 0.86 EC application per growing season.
- Do not exceed 10 fl ozs of **Avalaire Pyriprox 0.86 EC** per acre per calendar year.
- Regardless of formulation, do not apply more than 0.067 lb pyriproxyfen per acre per calendar year.
- Do not plant any crop other than those with registered pyriproxyfen uses in treated areas sooner than 30 days after last application.

MANAGING WHITEFLY RESISTANCE: Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant whitefly strains. To optimize resistance management practices, Avalaire, LLC is restricting Avalaire Pyriprox 0.86 EC to no more than one application per growing season. Avalaire Pyriprox 0.86 EC may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Avalaire, LLC also does not recommend using rates below 8 fl ozs per acre for whitefly control because reduced rates can lead to a greater potential for resistance development. Follow local, state and federal Integrated Pest Management (IPM) and Insect Resistance Management (IRM) recommendations. Read and follow all product labels before applying any insecticide.

## **CUCURBITS**

## (Crop Group 9)

**GENERAL:** Avalaire Pyriprox 0.86 EC acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. Avalaire Pyriprox 0.86 EC has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since Avalaire Pyriprox 0.86 EC is an Insect Growth Regulator (IGR) and activity depends on the insect's development, evidence of activity will be slower than typical contact insecticides.

A118.0 does exhibit translaminar movement which means that **Avalaire Pyriprox 0.86 EC** applied to the upper surfaces of the leaves will move to the lower surface of the leaf. This translaminar movement is very important to chemical control of whitefly since one of the major obstacles is getting the product to the underside of the leaves where whitefly are present.

CROPS	PESTS	PRODUCT RATE PER ACRE	SPECIAL INSTRUCTIONS
Balsam Apple Balsam Pear Bitter Melon Cantaloupe Chayote Chinese Cucumber Chinese Waxgourd Citron Melon Cucumber Edible Gourd Gherkin Momordica spp. Muskmelon Pumpkin Summer Squash Watermelon Winter Squash	Banded Wing Whitefly Greenhouse Whitefly Silverleaf Whitefly Sweetpotato Whitefly	8 to 10 fl ozs  Do not apply less than 8 fl ozs/A.	Apply with air or ground equipment in adequate water for uniform coverage:  By Air: 3 to 10 gals/A By Ground: 10 to 50 gals/A  HIGHER WATER VOLUMES MAY PROVIDE IMPROVED INSECT CONTROL.  Begin application when whiteflies reach threshold levels per University/Extension recommendations (e.g., 3 to 5 adults per leaf and/or equivalent levels of immatures).  Under severe pressure, use the higher recommended rates.  Only whole fields should be treated.
	<ul> <li>Do not make moseason.</li> <li>Do not exceed 20</li> <li>Do not apply extreatment.</li> <li>Regardless of fost acre per calenda</li> <li>Do not plant and</li> </ul>	Oflozs of <b>Avalaire</b> earlier than 14 or rmulation, do not ryear.	Pyriprox 0.86 EC applications per growing Pyriprox 0.86 EC per acre per calendar year. Pyriprox 0.86 EC per acr

MANAGING WHITEFLY RESISTANCE: Repeated use of the same class of insecticides or insecticides with similar modes of action can lead to the buildup of resistant whitefly strains. To optimize resistance management practices, Avalaire, LLC is restricting Avalaire Pyriprox 0.86 EC to no more than two applications per growing season. Avalaire Pyriprox 0.86 EC may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Avalaire, LLC also does not recommend using rates below 8 fl ozs per acre for whitefly control because reduced rates can lead to a greater potential for resistance development. Follow local, state and federal Integrated Pest Management (IPM) and Insect Resistance Management (IRM) recommendations. Read and follow all product labels before applying any insecticide.

## **FRUITING VEGETABLES**

(Crop Group 8-10)

A118.0 does exhibit translaminar movement which means that **Avalaire Pyriprox 0.86 EC** applied to the upper surfaces of the leaves will move to the lower surface of the leaf. This translaminar movement is very important to chemical control of whitefly since one of the major obstacles is getting the product to the underside of the leaves where whitefly are present.

		PRODUCT	
CROPS	PESTS	RATE	SPECIAL INSTRUCTIONS
African Eggplant Bush Tomato Bell Pepper Cocona Currant Tomato Eggplant Garden Huckleberry Goji Berry Ground Cherry Martynia Naranjilla Okra Pea Eggplant Pepino Pepper, Bell Pepper, Nonbell Roselle Scarlet Eggplant Sunberry	Banded Wing Whitefly Greenhouse Whitefly Silverleaf Whitefly Sweetpotato Whitefly	PER ACRE  8 to 10 fl ozs  Do not apply less than 8 fl ozs/A of Avalaire Pyriprox 0.86 EC when used as a stand-alone application.	Apply with air or ground equipment in adequate water for uniform coverage:  By Air: 3 to 10 gals/A  By Ground: 10 to 50 gals/A  HIGHER WATER VOLUMES MAY PROVIDE IMPROVED INSECT CONTROL.  Begin application when whiteflies reach threshold levels per University/Extension recommendations (e.g., 3 to 5 adults per leaf and/or equivalent levels of immatures).  Under severe pressure, use the higher recommended rates.  Only whole fields should be treated.
Tomatillo Tomato Tree Tomato Cultivars, varieties, and/or hybrids of these	Banded Wing Whitefly Cabbage Looper Green Peach Aphid Greenhouse Whitefly (immatures & adults) Silverleaf Whitefly Sweetpotato Whitefly Tobacco Hornworm	6 to 8 fl ozs	Apply as a tank mix with ground equipment for uniform coverage (25 to 150 gals/A by ground). Make application when eggs or insects first appear. If control is needed during this period use an alternate insecticide registered for the target pest.  Comply with all applicable directions, restrictions and precautions on the registered tank mix partner label.
	insecticides to comply Resistance Management	with local Integrat (IRM) programs. thin 1 day of harvest ore than 2 <b>Avalaire</b> of 6 fl ozs of <b>Avalaire</b> Prearlier than 14 day rmulation, do not a or year. y crop other than the	and/or alternated with commonly used ed Pest Management (IPM) and Insect  Pyriprox 0.86 EC applications per growing  yriprox 0.86 EC per acre per calendar year. ys after last Avalaire Pyriprox 0.86 EC  pply more than 0.108 lb pyriproxyfen per hose with registered pyriproxyfen uses in fter the last application.

CROPS	PESTS	PRODUCT RATE	SPECIAL INSTRUCTIONS
CITOT 5	12313	PER ACRE	SI EGIAL INSTRUCTIONS
Tomato	Banded Wing Whitefly Beet Armyworm Greenhouse Whitefly	6 to 8 fl ozs +	EARLY SEASON WHITEFLY CONTROL PROGRAM FOR REDUCTION OF GEMINIVIRUS:
	(immatures & adults) Potato Aphid Silverleaf Whitefly Sweetpotato Whitefly Thrips Tomato Pinworm Yellowstriped Armyworm	Danitol® 2.4 EC Spray 10-2/3 fl ozs	Apply as a tank mix with ground equipment for uniform coverage (10 to 120 gals/A).  Make application when scouting first indicates adult whiteflies are on young plants. <b>NOTE:</b> This may result in treatment immediately following transplanting.
			MID TO LATE SEASON WHITEFLY CONTROL PROGRAM FOR PREVENTION OF IRREGULAR FRUIT RIPENING: Apply as a tank mix with ground equipment for uniform coverage (20 to 120 gals/A by ground). Make application when scouting indicates whiteflies are present.
			Avalaire Pyriprox 0.86 EC may also be mixed or alternated with commonly used insecticides to comply with local IPM programs.
			Comply with all applicable directions, restrictions and precautions on the registered label for <i>Danitol</i> 2.4 EC spray.
	insecticides to comply Resistance Management	with local Integrat	and/or alternated with commonly used ed Pest Management (IPM) and Insect
	1		Pyriprox 0.86 EC applications per growing
			iprox 0.86 EC per acre per calendar year. ys after last Avalaire Pyriprox 0.86 EC
	acre per calenda	r year.	pply more than 0.108 lb pyriproxyfen per nose with registered pyriproxyfen uses in
	1	•	fter the last application.

**MANAGING INSECT RESISTANCE:** Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant insect strains. To optimize resistance management practices, Avalaire, LLC is restricting **Avalaire Pyriprox 0.86 EC** to no more than two applications per growing season. **Avalaire Pyriprox 0.86 EC** may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other

chemical classes of insecticides. Follow local, state and federal IPM and IRM recommendations. Read and follow all product labels before applying any insecticide.

#### GRAPE

**GENERAL:** Avalaire Pyriprox 0.86 EC acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. Avalaire Pyriprox 0.86 EC has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since Avalaire Pyriprox 0.86 EC is an Insect Growth Regulator (IGR) and activity depends on the insect's development, evidence of activity will be slower than typical contact insecticides.

PESTS	PRODUCT RATE PER ACRE	SPECIAL INSTRUCTIONS
Glassy-Winged Sharpshooter Grape Berry Moth Lecanium Scale	16 fl ozs	Apply with ground equipment as a full coverage spray (50 to 200 gals/A). Thorough coverage is critical for adequate control. It is essential to use adequate water volume to ensure thorough coverage.
		Lecanium Scale: Apply at either dormant, delayed dormant or an in-season cover spray. At dormant, delayed dormant you may use a spray oil at the manufacturer's recommended oil rate. Do not use oil in an in-season spray. In a cover spray make applications when scale crawlers first emerge.  Follow local recommendations regarding in-season use and rates of oil in your area.

**Avalaire Pyriprox 0.86 EC** may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management (IPM) and Insect Resistance Management (IRM) programs.

- Do not apply within 21 days of harvest.
- Do not make more than 2 **Avalaire Pyriprox 0.86 EC** applications per growing season.
- Do not exceed 32 flozs of **Avalaire Pyriprox 0.86 EC** per acre per calendar year.
- Do not apply earlier than 14 days after last **Avalaire Pyriprox 0.86 EC** treatment.
- Regardless of formulation, do not apply more than 0.215 lb pyriproxyfen per acre per calendar year.

MANAGING INSECT RESISTANCE: Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant insect strains. To optimize resistance management practices, Avalaire, LLC is restricting Avalaire Pyriprox 0.86 EC to no more than two applications per growing season. Avalaire Pyriprox 0.86 EC may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Follow local, state and federal IPM and IRM recommendations. Read and follow all product labels before applying any insecticide.

## **HERB**

## (Subgroup 19A)

A118.0 does exhibit translaminar movement which means that **Avalaire Pyriprox 0.86 EC** applied to the upper surfaces of the leaves will move to the lower surface of the leaf. This translaminar movement is very important to chemical control of whitefly since one of the major obstacles is getting the product to the underside of the leaves where whitefly are present.

CROPS	PESTS	PRODUCT RATE PER ACRE	SPECIAL INSTRUCTIONS
Angelica Balm Basil Borage Burnet Chamomile Catnip Chervil (dried) Chive Chive, Chinese Clary Coriander (leaf) Costmary Cilantro (leaf) Curry (leaf)	Whiteflies, including: Banded Wing Whitefly Greenhouse Whitefly Silverleaf Whitefly Sweetpotato Whitefly	8 to 10 fl ozs	Apply with ground equipment in adequate water for uniform coverage. A minimum of 20 gallons per acre for ground applications.  HIGHER WATER VOLUMES MAY PROVIDE IMPROVED INSECT CONTROL.  Begin application when whiteflies reach threshold levels.  Under severe pressure, use the higher recommended rates.  Treat only whole fields.
Dillweed Horehound Hyssop Lavender Lemongrass Lovage (leaf) Marigold Marjoram Nasturtium Parsley (dried) Pennyroyal Rosemary Rue Sage Savory, Summer and Winter Sweet Bay Tansy Tarragon Thyme Wintergreen Woodruff Wormwood	season.  Do not exceed 20 fl  Do not apply earlier  Regardless of form calendar year.  Do not plant any cr	than 2 <b>Avalaire P</b> ozs of A118.81 per than 14 days after ulation, do not ex op other than those	vest.  yriprox 0.86 EC applications per growing  r acre per calendar year.  r last Avalaire Pyriprox 0.86 EC treatment.  ceed 0.134 lb pyriproxyfen per acre per  se with registered Avalaire Pyriprox 0.86  30 days after the last application.

MANAGING WHITEFLY RESISTANCE: Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant whitefly strains. To optimize resistance management practices, Avalaire, LLC is restricting Avalaire Pyriprox 0.86 EC to no more than two applications per growing season. Avalaire Pyriprox 0.86 EC may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Avalaire, LLC also does not recommend using rates below 8 fl ozs/A for whitefly

control because reduced rates can lead to a greater potential for resistance development. Follow local, state and federal Integrated Pest Management (IPM) and Insect Resistance Management (IRM) recommendations. Read and follow all product labels before applying any insecticide.

## **LEAFY VEGETABLES**

## **Except Brassica Vegetables (Crop Group 4)**

**GENERAL:** Avalaire Pyriprox 0.86 EC acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. Avalaire Pyriprox 0.86 EC has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since Avalaire Pyriprox 0.86 EC is an Insect Growth Regulator (IGR) and activity depends on the insect's development, evidence of activity will be slower than typical contact insecticides.

A118.0 does exhibit translaminar movement which means that **Avalaire Pyriprox 0.86 EC** applied to the upper surfaces of the leaves will move to the lower surface of the leaf. This translaminar movement is very important to chemical control of whitefly since one of the major obstacles is getting the product to the underside of the leaves where whitefly are present.

CROPS	PESTS	PRODUCT RATE PER ACRE	SPECIAL INSTRUCTIONS
Amaranth (Chinese Spinach) Arugula (Roquette) Cardoon Celery Celery, Chinese Celtuce Chervil Chrysanthemum, Edible-leaved Chrysanthemum, Garland Corn Salad Cress, Garden Cress, Upland Dandelion, Dock (Sorrel) Endive (Escarole) Fennel, Florence Lettuce, Head and Leaf	Banded Wing Whitefly Greenhouse Whitefly Silverleaf Whitefly Sweetpotato Whitefly	8 to 10 fl ozs	Apply with ground equipment in adequate water for uniform coverage (10 to 50 gals/A).  HIGHER WATER VOLUMES MAY PROVIDE IMPROVED INSECT CONTROL.  Begin application when whiteflies reach threshold levels per University/Extension recommendations.  Under severe pressure, use the higher recommended rates.  Only whole fields should be treated.
Orach Parsley Purslane, Garden Purslane, Winter Radicchio (Red Chicory) Rhubarb Spinach New Zealand Spinach Vine Spinach Swiss Chard	<ul> <li>Do not make me growing season.</li> <li>Do not exceed calendar year.</li> <li>Do not apply eatreatment.</li> <li>Regardless of pyriproxyfen per Do not plant an</li> </ul>	20 fl ozs of <b>Aval</b> rlier than 14 days formulation, do r acre per calenda y crop other than	re Pyriprox 0.86 EC applications per aire Pyriprox 0.86 EC per acre per after last Avalaire Pyriprox 0.86 EC not apply more than 0.134 lb

**MANAGING WHITEFLY RESISTANCE:** Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant whitefly strains. To optimize resistance management practices, Avalaire, LLC is

restricting **Avalaire Pyriprox 0.86 EC** to no more than two applications per growing season. **Avalaire Pyriprox 0.86 EC** may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Avalaire, LLC also does not recommend using rates below 8 fl ozs/A for whitefly control because reduced rates can lead to a greater potential for resistance development. Follow local, state and federal Integrated Pest Management (IPM) and Insect Resistance Management (IRM) recommendations. Read and follow all product labels before applying any insecticide.

## **LEAVES OF ROOT & TUBER VEGETABLES**

## **Human Food or Animal Feed (Crop Group 2)**

**GENERAL:** Avalaire Pyriprox 0.86 EC acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. Avalaire Pyriprox 0.86 EC has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since Avalaire Pyriprox 0.86 EC is an Insect Growth Regulator (IGR) and activity depends on the insect's development, evidence of activity will be slower than typical contact insecticides.

A118.0 does exhibit translaminar movement which means that **Avalaire Pyriprox 0.86 EC** applied to the upper surfaces of the leaves will move to the lower surface of the leaf. This translaminar movement is very important to chemical control of whitefly since one of the major obstacles is getting the product to the underside of the leaves where whitefly are present.

CROPS	PESTS	PRODUCT RATE PER ACRE	SPECIAL INSTRUCTIONS
Beet, Garden Burdock, Edible Carrot Cassava, Bitter	Banded Wing Whitefly Greenhouse Whitefly Silverleaf Whitefly Sweetpotato Whitefly	8 to 10 fl ozs	Apply with ground equipment in adequate water for uniform coverage (10 to 50 gals/A).
Cassava, Sweet Celeriac Chervil, Turnip-Rooted	,		HIGHER WATER VOLUMES MAY PROVIDE IMPROVED INSECT CONTROL.
Chicory Dasheen (Taro) Parsnip Radish Radish, Oriental (daikon) Rutabaga Salsify, Black Sugar Beet Sweet Potato Tanier Turnip			Begin application when whiteflies reach threshold levels per University/Extension recommendations (e.g., 3 to 5 adults per leaf and/or equivalent levels of immatures).  Under severe pressure, use the higher recommended rates.  Only whole fields should be treated.
Yam, True	growing season.  • Do not exceed 16 year.	re than 2 <b>Avalair</b> e	e Pyriprox 0.86 EC applications per yriprox 0.86 EC per acre per calendar after last Avalaire Pyriprox 0.86 EC

	•	Regardless of formulation, do not apply more than 0.107 lb pyriproxyfen per
		acre per calendar year.
	•	Do not plant any crop other than those with registered pyriproxyfen uses in

treated areas sooner than 30 days after the last application.

Do not allow livestock to graze on treated areas.

MANAGING WHITEFLY RESISTANCE: Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant whitefly strains. To optimize resistance management practices, Avalaire, LLC is restricting Avalaire Pyriprox 0.86 EC to no more than two applications per growing season. Avalaire Pyriprox 0.86 EC may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Avalaire, LLC also does not recommend using rates below 8 fl ozs/A for whitefly control because reduced rates can lead to a greater potential for resistance development. Follow local, state and federal Integrated Pest Management (IPM) and Insect Resistance Management (IRM) recommendations. Read and follow all product labels before applying any insecticide.

## **LEGUME VEGETABLES**

## **Succulent or Dried (Crop Group 6)**

**GENERAL:** Avalaire Pyriprox 0.86 EC acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. Avalaire Pyriprox 0.86 EC has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since Avalaire Pyriprox 0.86 EC is an Insect Growth Regulator (IGR) and activity depends on the insect's development, evidence of activity will be slower than typical contact insecticides.

A118.0 does exhibit translaminar movement which means that **Avalaire Pyriprox 0.86 EC** applied to the upper surfaces of the leaves will move to the lower surface of the leaf. This translaminar movement is very important to chemical control of whitefly since one of the major obstacles is getting the product to the underside of the leaves where whitefly are present.

		PRODUCT	
CROPS	PESTS	RATE	SPECIAL INSTRUCTIONS
CKO13	1 2313	PER ACRE	SI ECIAL INSTRUCTIONS
Beans (Lupinus):	Banded Wing Whitefly	8 to 10 fl ozs	EARLY SEASON WHITEFLY PROGRAM:
Grain Lupin	Greenhouse Whitefly		Apply with ground equipment in
Sweet Lupin	Silverleaf Whitefly		adequate water for uniform coverage
White Lupin	Sweetpotato Whitefly		(10 to 50 gals/A). Thorough coverage
White Sweet Lupin	,		is critical for adequate control. It is
Beans ( <i>Phaseolus</i> ):			essential to use adequate water
Field Bean			volume to ensure thorough coverage.
Kidney Bean			Regin application when whiteflies
Lima Bean			Begin application when whiteflies reach threshold levels per
Navy Bean			University/Extension recommendations
Pinto Bean			(e.g., 3 to 5 adults per leaf and/or
Runner Bean			equivalent levels of immatures).
Snap Bean			
Tepary Bean			Under severe pressure, use the higher
Wax Bean			recommended rates.
Bean (Vigna):			Only whole fields should be treated.
Adzuki Bean			om, more neras sincara de createar
Asparagus Bean			
Blackeyed Pea			
Catjang	[¹California only] [¹New Y	ork only] [Not for	Luce on couheans!
Chinese Longbean			-
Cowpea		thin 7 days of har	
Crowder Pea			laire Pyriprox 0.86 EC applications per
Moth Bean	growing season.		re Pyriprox 0.86 EC per acre per calendar
Mung Bean Rice Bean		0 11 025 01 <b>Avaiaii</b>	re Pyriprox 0.86 EC per acre per calendar
Southern Pea	year.  • Do not apply e	arliar than 14 da	ays after last Avalaire Pyriprox 0.86 EC
Urd Bean	treatment.	arrier triair 14 uc	ays after last Avaiance Fyripiox 0.80 LC
Yardlong Bean		rmulation do no	t apply more than 0.134 lb pyriproxyfen
Broad Bean (fava)	per acre per cale		t apply more than 0.134 ib pyriproxyren
Chickpea (garbanzo)		•	those with registered pyriproxyfen uses in
Guar			s after the last application.
Jackbean		estock to graze on	• •
Lablab Bean			varieties grown for livestock feed.
Lentil	Bo not use on te	Barrie Vegetables	varieties grown for investock recar
Pea (Pisum):			
Dwarf Pea			
Edible-podded Pea			
English Pea			
Field Pea			
Garden Pea			
Green Pea			
Snowpea			
Sugar Snap Pea			
Pigeon Pea			
Soybean[1]			
Sword Bean			

MANAGING WHITEFLY RESISTANCE: Repeated use of the same class of insecticides or insecticides with similar modes of action can lead to the buildup of resistant whitefly strains. To optimize resistance management practices, Avalaire, LLC is restricting Avalaire Pyriprox 0.86 EC to no more than two applications per growing season. Avalaire Pyriprox 0.86 EC may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Avalaire, LLC also does not recommend using rates below 8 fl ozs per acre for whitefly control because reduced rates can lead to a greater potential for resistance development. Follow local, state, and federal Integrated Pest Management (IPM) and Insect Resistance Management (IRM) recommendations. Read and follow all product labels before applying any insecticide.

## **OLIVE**

**GENERAL:** Avalaire Pyriprox 0.86 EC acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. Avalaire Pyriprox 0.86 EC has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since Avalaire Pyriprox 0.86 EC is an Insect Growth Regulator (IGR) and activity depends on the insect's development, evidence of activity will be slower than typical contact insecticides.

PESTS	PRODUCT RATE PER ACRE	SPECIAL INSTRUCTIONS
Black Scale San Jose Scale	13 to 16 fl ozs	Apply with ground equipment in 100 to 400 gals/A. Apply in sufficient water volume for tree size. Thorough coverage is critical for adequate control. It is essential to use adequate water volume to ensure thorough coverage.
		Apply at either dormant, delayed dormant or an inseason cover spray. At dormant, delayed dormant use a spray oil at the manufacturer's recommended oil rate. In a cover spray make applications when scale crawlers first emerge. Follow local recommendations regarding inseason use and rates of oil in your area.  Under heavy scale pressure, use the higher rate of Avalaire Pyriprox 0.86 EC.

**Avalaire Pyriprox 0.86 EC** may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management (IPM) and Insect Resistance Management (IRM) programs.

- Do not apply within 7 days of harvest.
- Do not make more than 2 **Avalaire Pyriprox 0.86 EC** applications per growing season.
- Do not exceed 32 fl ozs of **Avalaire Pyriprox 0.86 EC** per acre per calendar year.
- Do not apply earlier than 14 days after last **Avalaire Pyriprox 0.86 EC** treatment.
- Regardless of formulation, do not apply more than 0.215 lb pyriproxyfen per acre per calendar year.

MANAGING INSECT RESISTANCE: Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant insect strains. To optimize resistance management practices, Avalaire, LLC is restricting Avalaire Pyriprox 0.86 EC to no more than two applications per growing season. Avalaire Pyriprox 0.86 EC may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Follow local, state, and federal IPM and IRM recommendations. Read and follow all product labels before applying any insecticide.

#### PASTURE GRASS AND RANGELAND

**GENERAL:** Avalaire Pyriprox 0.86 EC acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. Avalaire Pyriprox 0.86 EC has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since Avalaire Pyriprox 0.86 EC is an Insect Growth Regulator (IGR) and activity depends on the insect's development, evidence of activity will be slower than typical contact insecticides.

PESTS	PRODUCT RATE PER ACRE	SPECIAL INSTRUCTIONS
Cricket Grasshopper	8 to 10 fl ozs	Apply with air or ground equipment in adequate water for uniform coverage:
Locust		By air
		Begin application when pests reach threshold levels per University/Extension recommendations.
		Under severe pressure, use the higher recommended rates.

**Avalaire Pyriprox 0.86 EC** may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management (IPM) and Insect Resistance Management (IRM) programs.

- Do not make more than 2 **Avalaire Pyriprox 0.86 EC** applications per growing season.
- Do not exceed 20 fl ozs of Avalaire Pyriprox 0.86 EC per acre per calendar year.
- Regardless of formulation, do not apply more than 0.134 pyriproxyfen per acre per calendar year.
- Do not apply earlier than 14 days after last **Avalaire Pyriprox 0.86 EC** treatment.

MANAGING INSECT RESISTANCE: Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant insect strains. To optimize resistance management practices, Avalaire, LLC is restricting Avalaire Pyriprox 0.86 EC to no more than two applications per growing season. Avalaire Pyriprox 0.86 EC may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Follow local, state, and federal IPM and IRM recommendations. Read and follow all product labels before applying any insecticide.

## **PAWPAW**

**GENERAL:** Avalaire Pyriprox 0.86 EC acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. Avalaire Pyriprox 0.86 EC has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since Avalaire Pyriprox 0.86 EC is an Insect Growth Regulator (IGR) and activity depends on the insect's development, evidence of activity will be slower than typical contact insecticides.

A118.0 does exhibit translaminar movement which means that **Avalaire Pyriprox 0.86 EC** applied to the upper surfaces of the leaves will move to the lower surface of the leaf. This translaminar movement is very important to chemical control of whitefly since one of the major obstacles is getting the product to the underside of the leaves where whitefly are present.

PESTS	PRODUCT RATE PER ACRE	SPECIAL INSTRUCTIONS
Scale Whitefly	13 to 16 fl ozs	Apply 100 to 400 gals/A with ground equipment. Coverage is essential for good control. Apply in sufficient water volume for tree size. Use of higher water volume will assure better coverage.
		<b>Scale:</b> Apply at either dormant, delayed dormant or an inseason cover spray. At dormant or delayed dormant use a spray oil at the manufacturer's recommended oil rate. Do not use oil in an in-season spray.
		In a cover spray make applications when scale crawlers first emerge.
		Under heavy scale pressure, use the higher rate of <b>Avalaire Pyriprox 0.86 EC</b> .

In-season sprays of Avalaire Pyriprox 0.86 EC may not protect fruit from blemishes by scale.

**Avalaire Pyriprox 0.86 EC** may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management (IPM) and Insect Resistance Management (IRM) programs.

- Do not apply within 14 days of harvest.
- Do not make more than 3 Avalaire Pyriprox 0.86 EC applications per growing season.
- Do not exceed 48 fl ozs of **Avalaire Pyriprox 0.86 EC** per acre per calendar year.
- Do not apply earlier than 14 days after last **Avalaire Pyriprox 0.86 EC** treatment.
- Regardless of formulation, do not apply more than 0.323 lb pyriproxyfen per acre per calendar year.

MANAGING INSECT RESISTANCE: Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant insect strains. To optimize resistance management practices, Avalaire, LLC is restricting Avalaire Pyriprox 0.86 EC to no more than three applications per growing season. Avalaire Pyriprox 0.86 EC may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Follow local, state, and federal IPM and IRM recommendations. Read and follow all product labels before applying any insecticide.

## **PINEAPPLE**

PESTS	PRODUCT RATE PER ACRE	SPECIAL INSTRUCTIONS
Black Scale Brown Soft Scale California Red Scale Florida Red Scale Snow Scale	16 fl ozs	Apply with ground equipment in 20 to 50 gals/A. Apply in sufficient water volume for plant size. Thorough coverage is critical for control. It is essential to use adequate water volume to ensure thorough coverage.  Apply any time prior to fruit becoming infested when scale is in the crawler stage. Application at the 2 <sup>nd</sup> or 3 <sup>rd</sup> generation of scale may result in excessive dead scale remaining on the fruit at harvest. Thorough coverage is essential for good control.
		<b>Avalaire Pyriprox 0.86 EC</b> may be applied with superior spray oils at ½ to 1%. Follow the manufacturer's directions and recommendations on timing and rates.

**Avalaire Pyriprox 0.86 EC** may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management (IPM) and Insect Resistance Management (IRM) programs.

- Do not apply within 1 day of harvest.
- Do not make more than 2 Avalaire Pyriprox 0.86 EC applications per calendar year.
- Do not exceed 32 flozs of **Avalaire Pyriprox 0.86 EC** per acre per calendar year.
- Do not apply earlier than 21 days after last **Avalaire Pyriprox 0.86 EC** treatment.
- Regardless of formulation, do not apply more than 0.215 lb pyriproxyfen per acre per calendar year.

MANAGING INSECT RESISTANCE: Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant insect strains. To optimize resistance management practices, Avalaire, LLC is restricting Avalaire Pyriprox 0.86 EC to no more than two applications per growing season. Avalaire Pyriprox 0.86 EC may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Follow local, state, and federal IPM and IRM recommendations. Read and follow all product labels before applying any insecticide.

## **POME FRUIT**

## (Crop Group 11-10)

CROPS	PESTS	PRODUCT RATE PER ACRE	SPECIAL INSTRUCTIONS
Apple Azarole Crabapple Loquat Mayhaw Medlar Quince Quince, Chinese Quince, Japanese Tejocote Cultivars, varieties, and/or hybrids of these	Suppression of: Obliquebanded Leafroller Pandemis Leafroller	13 to 16 fl ozs	Apply by ground with airblast equipment in a minimum of 50 gals/A. Thorough coverage is critical for control. It is essential to use adequate water volume to ensure thorough coverage.  1st Generation Codling Moth: Apply at Biofix plus 100-degree days (this is usually close to petal fall). Make a second application 14 to 21 days later or timed to coincide with peak moth flights. For subsequent applications, if needed, apply other insecticides registered for Codling Moth control. The addition of oil has been shown to increase Codling Moth activity of Avalaire Pyriprox 0.86 EC. Follow local recommendations regarding in season use and rates of oil in your area.  Obliquebanded and Pandemis Leafroller: Apply to the overwintering larvae at the pink to petal fall tree growth stage. Avalaire Pyriprox 0.86 EC does not directly control the larvae but inhibits normal pupation and adult emergence.

PRODUCT			
CROPS	PESTS	RATE	SPECIAL INSTRUCTIONS
		PER ACRE	
	Florida Red Scale Lecanium Scale San Jose Scale	13 to 16 fl ozs	Apply by ground with airblast equipment in a minimum of 50 gals/A. Thorough coverage is critical for control. It is essential to use adequate water volume to ensure thorough coverage.
			Apply at delayed dormant through pink. For delayed dormant, use a superior spray oil at the manufacturer's recommended rate of oil. Under heavy scale pressure, use the higher rate of <b>Avalaire Pyriprox 0.86 EC</b> .
			Scale: For control in-season, make application in cover sprays when scale crawlers first emerge. The use of an oil at the crawler emergence stage has been shown to improve control. Follow local recommendations regarding in-season use and rates of oil in your area.
	Green Apple Aphid Rosy Apple Aphid Spirea Aphid Spotted Tentiform Leafminer Western Tentiform	10 to 16 fl ozs	Apply by ground with airblast equipment in a minimum of 50 gals/A. Thorough coverage is critical for control. It is essential to use adequate water volume to ensure thorough coverage.
Leafminer	Leafminer		Leafminers: Apply at peak moth flight for control of 1 <sup>st</sup> or 2 <sup>nd</sup> generation.  This usually occurs at pre-pink to pink apple stage for 1 <sup>st</sup> generation and 2ns cover for 2 <sup>nd</sup> generation.
			Rosy Apple Aphid: Apply at ½" green apple growth stage.
			Green Apple & Spirea Aphid: Apply when aphids first appear, but before aphids are colonized.
			TIMING IS CRITICAL FOR ACCEPTABLE APHID CONTROL.
Pear Pear, Asian	Pear Psylla	13 to 16 fl ozs	Apply by ground with airblast equipment in 75 to 400 gals/A with a superior spray oil at manufacturer's recommended rates for the stage of growth. It is essential to use adequate water volume to ensure thorough coverage.

CROPS	PESTS	PRODUCT RATE PER ACRE	SPECIAL INSTRUCTIONS
			Apply a single application during the delayed dormant to pink stage of growth at 16 fl ozs/A or make two applications from delayed dormant through petal fall stage of growth at 13 to 16 fl ozs/A. Make application just before sustained egg lay is anticipated.
			DO NOT SKIP ROWS DURING APPLICATION.
			For in-season control of pear psylla, use an insecticide recommended for this use.
Pear Pear, Asian (Cont'd)	Lecanium Scale San Jose Scale	13 to 16 fl ozs	Apply by ground with airblast equipment in 100 to 400 gals/A at delayed dormant with a superior spray oil at the manufacturer's recommended rates. Under heavy scale pressure, use the higher rate.
			Apply in sufficient water volume for tree size. Thorough coverage is critical for control. It is essential to use adequate water volume to ensure thorough coverage.
			For control of scale in-season make application in cover sprays when scale crawlers first emerge. The use of an oil at the crawler emergence stage has been shown to improve performance. Follow local recommendations regarding in-season use and rates of oil in your area.

		PRODUCT		
CROPS	PESTS	RATE	SPECIAL INSTRUCTIONS	
		PER ACRE		
Pear	Codling Moth	13 to 16	Apply by ground with airblast	
Pear, Asian		fl ozs	equipment in 100 to 400 gals/A.	
(Cont'd)	Suppression of:			
	Obliquebanded		1 <sup>st</sup> Generation Codling Moth: Apply at	
	Leafroller		Biofix plus 100-degree days. Make a	
	Pandemis Leafroller		second application 14 to 21 days later	
			or timed to coincide with peak moth	
			flights. For subsequent applications, if	
			needed, apply other insecticides	
			registered for Codling Moth control.	
			The addition of oil has been shown to	
			increase Codling Moth activity of	
			Avalaire Pyriprox 0.86 EC. Follow local	
			recommendations regarding in-season	
			use and rates of oil in your area.	
			For additional generations apply other	
			insecticides registered for Codling	
			Moth Control.	
	Avalaire Pyriprox 0.86 E	C may be mixed an	d/or alternated with commonly used	
	insecticides to comply with local Integrated Pest Management (IPM) and Insect Resistance Management (IRM) programs.  • Do not apply within 45 days of harvest.  • Do not make more than 2 <b>Avalaire Pyriprox 0.86 EC</b> applications per			
	growing season			
	<ul> <li>Do not exceed 32 fl ozs of Avalaire Pyriprox 0.86 EC per acre per calenda year.</li> </ul>			
	<ul> <li>Do not apply earlier than 14 days after last Avalaire Pyriprox 0.86 EC treatment.</li> <li>Regardless of formulation, do not apply more than 0.215 lb pyriproxyfen</li> </ul>			
	per acre per cal		F F F F F F F F F F F F F F F F F F	
	1 1 1 2 2 2 2 1 2 3 3	, - ,		

MANAGING INSECT RESISTANCE: Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant insect strains. To optimize resistance management practices, Avalaire, LLC is restricting Avalaire Pyriprox 0.86 EC to no more than two applications per growing season. Avalaire Pyriprox 0.86 EC may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Follow local, state, and federal Integrated Pest Management (IPM) and Insect Resistance Management (IRM) recommendations. Read and follow all product labels before applying any insecticide.

## **POMEGRANATE**

A118.0 does exhibit translaminar movement which means that **Avalaire Pyriprox 0.86 EC** applied to the upper surfaces of the leaves will move to the lower surface of the leaf. This translaminar movement is very important to chemical control of whitefly since one of the major obstacles is getting the product to the underside of the leaves where whitefly are present.

PESTS	PRODUCT RATE PER ACRE	SPECIAL INSTRUCTIONS
Banded Wing Whitefly Greenhouse Whitefly Silverleaf Whitefly Sweetpotato Whitefly	13 to 16 fl ozs	Apply with air or ground equipment in adequate water for uniform coverage:  By air: 3 to 10 gals/A By ground: 10 to 50 gals/A  HIGHER WATER VOLUMES MAY PROVIDE IMPROVED INSECT CONTROL.  Begin applications when whiteflies reach threshold levels per University/Extension recommendations (e.g., 3 to 5 adults per leaf and/or equivalent levels of immatures).  Only whole fields should be treated.

- Do not apply within 14 days of harvest.
- Do not make more than 3 Avalaire Pyriprox 0.86 EC applications per growing season.
- Do not exceed 48 fl ozs of **Avalaire Pyriprox 0.86 EC** per acre per calendar year.
- Do not apply earlier than 14 days after last **Avalaire Pyriprox 0.86 EC** treatment.
- Regardless of formulation, do not apply more than 0.323 lb pyriproxyfen per acre per calendar year.
- Do not plant any crop other than those with registered pyriproxyfen uses in treated areas sooner than 30 days after the last application.

MANAGING WHITEFLY RESISTANCE: Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant whitefly strains. To optimize resistance management practices, Avalaire, LLC is restricting Avalaire Pyriprox 0.86 EC to no more than three applications per growing season. Avalaire Pyriprox 0.86 EC may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Avalaire, LLC also does not recommend using rates below 13 fl ozs per acre for whitefly control because reduced rates can lead to a greater potential for resistance development. Follow local, state, and federal Integrated Pest Management (IPM) and Insect Resistance Management (IRM) recommendations. Read and follow all product labels before applying any insecticide.

#### **ROOT AND TUBER VEGETABLES**

(Crop Group 1)

**GENERAL:** Avalaire Pyriprox 0.86 EC acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. Avalaire Pyriprox 0.86 EC has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since Avalaire Pyriprox 0.86 EC is an Insect Growth Regulator (IGR) and activity depends on the insect's development, evidence of activity will be slower than typical contact insecticides.

A118.0 does exhibit translaminar movement which means that **Avalaire Pyriprox 0.86 EC** applied to the upper surfaces of the leaves will move to the lower surface of the leaf. This translaminar movement is very important to chemical control of whitefly since one of the major obstacles is getting the product to the underside of the leaves where whitefly are present.

CROPS	PESTS	PRODUCT RATE PER ACRE	SPECIAL INSTRUCTIONS
Arracacha Arrowroot Artichoke, Chinese Artichoke, Jerusalem Beet, Garden Beet, Sugar Burdock, Edible Canna, Edible Carrot Cassava, (bitter and sweet) Celeriac Chayote (root) Chervil, Turnip-rooted	Banded Wing Whitefly Greenhouse Whitefly Silverleaf Whitefly Sweetpotato Whitefly	8 fl ozs	Apply with ground equipment in adequate water for uniform coverage (20 to 50 gals/A).  HIGHER WATER VOLUMES MAY PROVIDE IMPROVED INSECT CONTROL.  Begin applications when whiteflies reach threshold levels per University/Extension recommendations (e.g., 3 to 5 adults per leaf and/or equivalent levels of immatures).  Under severe pressure, use the higher
Chicory Chufa Dasheen (taro) Ginger Ginseng Horseradish			recommended rates.  Only whole fields should be treated.
Leren Parsley, Turnip-rooted Parsnip Potato Radish Radish, Oriental (dai kon) Rutabaga Salsify Salsify, Spanish Skirret Sweet Potato Tanier Turmeric Turnip Yam, Bean Yam, True	growing season.  Do not exceed 16 year.  Do not apply ear treatment.  Regardless of form per acre per caler  Do not plant any of	ore than 2 Avalored flows of Avalair rlier than 14 da mulation, do not not of the corop other than the corop other than the corop other than 30 days	laire Pyriprox 0.86 EC applications per e Pyriprox 0.86 EC per acre per calendar lys after last Avalaire Pyriprox 0.86 EC apply more than 0.108 lb pyriproxyfen hose with registered pyriproxyfen uses in after the last application.

MANAGING WHITEFLY RESISTANCE: Repeated use of the same class of insecticides or insecticides with similar modes of action can lead to the buildup of resistant whitefly strains. To optimize resistance management practices, Avalaire, LLC is restricting Avalaire Pyriprox 0.86 EC to no more than two applications per growing season. Avalaire Pyriprox 0.86 EC may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Avalaire, LLC also does not recommend using rates below 8 fl ozs per acre for whitefly control because reduced rates can lead to a greater potential for resistance development. Follow local, state, and federal Integrated Pest Management (IPM) and Insect Resistance Management (IRM) recommendations. Read and follow all product labels before applying any insecticide.

## SMALL FRUIT VINE CLIMBING CROPS (EXCEPT GRAPE)

(Subgroup 13-07E)

**GENERAL:** Avalaire Pyriprox 0.86 EC acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. Avalaire Pyriprox 0.86 EC has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since Avalaire Pyriprox 0.86 EC is an Insect Growth Regulator (IGR) and activity depends on the insect's development, evidence of activity will be slower than typical contact insecticides.

CROPS	PESTS	PRODUCT RATE	SPECIAL INSTRUCTIONS
		PER ACRE	
Berry, Schisandra Gooseberry Grape, Amur River Kiwifruit, Fuzzy Kiwifruit, Hardy Maypop Cultivars, varieties and/or	Scale	16 fl ozs	Apply with ground or air equipment as a full coverage spray (minimum of 5 gals/A by air or 50 gals/A by ground). Thorough coverage is critical for adequate control. It is essential to use adequate water volume to ensure thorough coverage.
hybrids of these			Apply at either dormant, delayed dormant or an in-season cover spray. At dormant or delayed dormant use a spray oil at the manufacturer's recommended oil rate. In a cover spray make applications when scale crawlers first emerge. Follow local recommendations regarding in-season use and rates of oil in your area.
		with local Integra	and/or alternated with commonly used ted Pest Management (IPM) and Insect
	<ul> <li>Do not make growing season</li> <li>Do not exceed year.</li> <li>Do not apply of treatment.</li> </ul>	i. 32 fl ozs of <b>Avalair</b> earlier than 14 da ormulation, do no	rvest.  laire Pyriprox 0.86 EC applications per re Pyriprox 0.86 EC per acre per calendar ays after last Avalaire Pyriprox 0.86 EC t apply more than 0.215 lb pyriproxyfen

MANAGING INSECT RESISTANCE: Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant insect strains. To optimize resistance management practices, Avalaire, LLC is restricting Avalaire Pyriprox 0.86 EC to no more than two applications per growing season. Avalaire Pyriprox 0.86 EC may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Follow local, state, and federal IPM and IRM recommendations. Read and follow all product labels before applying any insecticide.

## **STONE FRUIT**

(Crop Group 12)

**GENERAL:** Avalaire Pyriprox 0.86 EC acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. Avalaire Pyriprox 0.86 EC has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since Avalaire Pyriprox 0.86 EC is an Insect Growth Regulator (IGR) and activity depends on the insect's development, evidence of activity will be slower than typical contact insecticides.

		PRODUCT	
CROPS	PESTS	RATE	SPECIAL INSTRUCTIONS
	1 23.0	PER ACRE	
Apricot Cherry Chickasaw Plum Damson Plum Fresh Prune Japanese Plum	Lecanium Scale San Jose Scale	13 to 16 fl ozs	Apply in 100 to 400 gals/A with ground equipment. Coverage is essential for good control. Apply in sufficient water volume for tree size. Use of higher water volume will assure better coverage.
Nectarine Peach Plum Plumcot Prune	Suppression of: Peach Twig Borer Oriental Fruit Moth		Scale: Apply at dormant, delayed dormant or as an in-season cover spray: At dormant, delayed dormant, use a spray oil at the manufacturer's recommended oil rate.
			Under heavy scale pressure, use the higher rate of <b>Avalaire Pyriprox 0.86 EC</b> .
			Peach Twig Borer: Avalaire Pyriprox  0.86 EC has provided good suppression of Peach Twig Borer when applied delayed dormant through bloom sprays. Use a spray oil at the manufacturer's recommended rate for the stage of crop growth.
	In-season sprays of <b>Ava</b> l by scale.	laire Pyriprox 0.86	EC may not protect fruit from blemishes
	Avalaire Pyriprox 0.86	with local Integra	and/or alternated with commonly used ated Pest Management IPM and Insect
	Do not make		rvest.  laire Pyriprox 0.86 EC applications per
	<ul><li>growing season</li><li>Do not exceed</li><li>year.</li></ul>		re Pyriprox 0.86 EC per acre per calendar
	<ul> <li>Do not apply of treatment.</li> </ul>	earlier than 14 da	ays after last <b>Avalaire Pyriprox 0.86 EC</b>
	<ul> <li>Regardless of f per acre per cal</li> </ul>		t apply more than 0.323 lb pyriproxyfen

MANAGING INSECT RESISTANCE: Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant insect strains. To optimize resistance management practices, Avalaire, LLC is restricting Avalaire Pyriprox 0.86 EC to no more than three applications per growing season. Avalaire Pyriprox 0.86 EC may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Follow local, state, and federal Integrated Pest Management (IPM) and Insect Resistance Management (IRM) recommendations. Read and follow all product labels before applying any insecticide.

#### **STRAWBERRY**

**GENERAL:** Avalaire Pyriprox 0.86 EC acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. Avalaire Pyriprox 0.86 EC has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since Avalaire Pyriprox 0.86 EC is an Insect Growth Regulator (IGR) and activity depends on the insect's development, evidence of activity will be slower than typical contact insecticides.

A118.0 does exhibit translaminar movement which means that **Avalaire Pyriprox 0.86 EC** applied to the upper surfaces of the leaves will move to the lower surface of the leaf. This translaminar movement is very important to chemical control of whitefly since one of the major obstacles is getting the product to the underside of the leaves where whitefly are present.

PESTS	PRODUCT RATE PER ACRE	SPECIAL INSTRUCTIONS
Banded Wing Whitefly Greenhouse Whitefly Silverleaf Whitefly Sweetpotato Whitefly	10 fl ozs	Apply with ground equipment as a full coverage spray (100 to 400 gals/A). Thorough coverage is critical for adequate control. It is essential to use adequate water volume to ensure thorough coverage.  Begin applications when whiteflies reach threshold levels per University/Extension recommendations (e.g., 3 to 5 adults per leaf and/or equivalent levels of immatures).  Under severe pressure, use the higher recommended rates.  Only whole fields should be treated.

- Do not apply within 2 days of harvest.
- Do not make more than 2 **Avalaire Pyriprox 0.86 EC** applications per growing season.
- Do not exceed 20 fl ozs of **Avalaire Pyriprox 0.86 EC** per acre per calendar year.
- Do not apply earlier than 30 days after last **Avalaire Pyriprox 0.86 EC** treatment.
- Regardless of formulation, do not apply more than 0.134 lb pyriproxyfen per acre per calendar year.
- Do not plant any crop other than those with registered pyriproxyfen uses in treated areas sooner than 30 days after the last application.

MANAGING WHITEFLY RESISTANCE: Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant whitefly strains. To optimize resistance management practices, Avalaire, LLC is restricting Avalaire Pyriprox 0.86 EC to no more than two applications per growing season. Avalaire Pyriprox 0.86 EC may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Follow local, state, and federal Integrated Pest Management (IPM) and Insect Resistance Management (IRM) recommendations. Read and follow all product labels before applying any insecticide.

#### TREE NUTS

## (Crop Group 14)

**GENERAL:** Avalaire Pyriprox 0.86 EC acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. Avalaire Pyriprox 0.86 EC has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since Avalaire Pyriprox 0.86 EC is an Insect Growth Regulator (IGR) and activity depends on the insect's development, evidence of activity will be slower than typical contact insecticides.

CROPS	PESTS	PRODUCT RATE PER ACRE	SPECIAL INSTRUCTIONS		
Almond	Black Scale San Jose Scale Suppression of: Peach Twig Borer	13 to 16 fl ozs	Apply with ground equipment in 100 to 400 gals/A. Coverage is essential for good control. Apply in sufficient water volume for tree size. Use of higher water volume will assure better coverage.		
			Apply at either dormant, delayed dormant or an in-season cover spray. At dormant, delayed dormant use a spray oil at the manufacturer's recommended oil rate. In a cover spray make applications when scale crawlers first emerge. Follow local recommendations regarding in-season use and rates of oil in your area.		
			Avalaire Pyriprox 0.86 EC has provided good suppression of Peach Twig Borer when applied delayed dormant through bloom sprays.		
	Almond:				
		ithin 21 days of ha			
	<ul> <li>Do not make more than 1 Avalaire Pyriprox 0.86 E season.</li> </ul>		Pyriprox 0.86 EC application per growing		
	Do not exceed year.	Do not exceed 16 fl ozs of Avalaire Pyriprox 0.86 EC per acre per calendar year.			
	Regardless of f     per acre per cal		t apply more than 0.108 lb pyriproxyfen		

MANAGING INSECT RESISTANCE: Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant insect strains. To optimize resistance management practices, Avalaire, LLC is restricting Avalaire Pyriprox 0.86 EC to one application per growing season. Avalaire Pyriprox 0.86 EC may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Follow local, state, and federal Integrated Pest Management (IPM) and Insect Resistance Management (IRM) recommendations. Read and follow all product labels before applying any insecticide.

TREE NUTS (Crop Group 14) - continues

CROPS	PESTS	PRODUCT RATE	SDECIAL INISTRUCTIONS
CROPS	PESIS	PER ACRE	SPECIAL INSTRUCTIONS
Beechnut Brazil Butternut Cashew Chestnut Chinquapin Filbert (Hazelnut)	Codling Moth Dusky Veined Aphid Walnut Aphid	16 fl ozs	Apply with ground equipment in 100 to 400 gals/A. Apply in sufficient water volume for tree size. Thorough coverage is critical for control. It is essential to use adequate water volume to ensure thorough coverage.  1st Generation Codling Moth: Apply at
Hickory Macadamia Pecan Pistachio Walnut			Biofix plus 100-degree days. Make a second application 14 to 21 days later or timed to coincide with peak moth flights. For subsequent applications, if needed, apply other insecticides registered for Codling Moth control. The addition of oil has been shown to increase Codling Moth activity of Avalaire Pyriprox 0.86 EC. Follow local recommendations regarding in-season use and rates of oil in your area.
	Black Scale Brown Soft Scale Italian Scale Lecanium Scale San Jose Scale Walnut Scale Suppression of: Peach Twig Borer	13 to 16 fl ozs	Apply with ground equipment in 100 to 400 gals/A at either dormant, delayed dormant or an in-season cover spray. The addition of a superior spray oil at dormant or delayed dormant may improve scale control. However, do not use a spray oil in oil sensitive crops such as Walnut. Follow manufacturer's recommendations regarding use and rates of oil for your area.
			In a cover spray make applications when scale crawlers first emerge. Follow local recommendations regarding in-season use and rates of oil in your area.
			Under heavy scale pressure, use the higher rate.
			Coverage is essential for good control.  Apply in sufficient water volume for tree size. Use of higher water volume will assure better coverage.
		n local Integrated	nd/or alternated with commonly used di Pest Management (IPM) and Insect
	Do not apply within 21 days of harvest.		

CROPS	PESTS	PRODUCT RATE PER ACRE	SPECIAL INSTRUCTIONS
	growing season.  Do not exceed 3 year.  Do not apply eat treatment.	2 fl ozs of <b>Avalair</b> d lier than 14 days rmulation, do not	e Pyriprox 0.86 EC applications per e Pyriprox 0.86 EC per acre per calendar after last Avalaire Pyriprox 0.86 EC apply more than 0.215 lb pyriproxyfen

MANAGING INSECT RESISTANCE: Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant insect strains. To optimize resistance management practices, Avalaire, LLC is restricting Avalaire Pyriprox 0.86 EC to no more than two applications per growing season. Avalaire Pyriprox 0.86 EC may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Follow local, state, and federal IPM and IRM recommendations. Read and follow all product labels before applying any insecticide.

## **TROPICAL & SUBTROPICAL FRUIT**

**GENERAL:** Avalaire Pyriprox 0.86 EC acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. Avalaire Pyriprox 0.86 EC has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since Avalaire Pyriprox 0.86 EC is an Insect Growth Regulator (IGR) and activity depends on the insect's development, evidence of activity will be slower than typical contact insecticides.

CROPS	PESTS	PRODUCT RATE PER ACRE	SPECIAL INSTRUCTIONS
Acerola Atemoya Avocado Biriba Black Sapote Canistel Cherimoya Custard Apple Feijoa Guava Ilama Jaboticaba Longan Lychee	Scale	16 fl ozs	Apply with ground or air equipment as a full coverage spray (minimum of 5 gals/A by air or 50 gals/A by ground). Thorough coverage is critical for adequate control. It is essential to use adequate water volume to ensure thorough coverage.  Apply at either dormant, delayed dormant or an in-season cover spray. At dormant or delayed dormant use a spray oil at the manufacturer's recommended oil rate. In a cover spray make applications when scale crawlers first emerge. Follow local recommendations regarding inseason use and rates of oil in your area.

Mamey Sapote	Avalaire Pyriprox 0.86 EC may be mixed and/or alternated with commonly used	
Mango	insecticides to comply with local Integrated Pest Management (IPM) and Insect	
Passionfruit	Resistance Management (IRM) programs.	
Papaya Pulasan Rambutan Sapodilla Soursop Spanish Lime Star Apple Starfruit Sugar Apple Wax Jambu	<ul> <li>Do not apply within 14 days of harvest.</li> <li>Do not make more than 2 Avalaire Pyriprox 0.86 EC applications per growing season.</li> <li>Do not exceed 32 fl ozs of Avalaire Pyriprox 0.86 EC per acre per calendar year.</li> <li>Do not apply earlier than 14 days after last Avalaire Pyriprox 0.86 EC treatment.</li> <li>Regardless of formulation, do not apply more than 0.215 lb pyriproxyfen per acre per calendar year.</li> </ul>	

MANAGING INSECT RESISTANCE: Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant insect strains. To optimize resistance management practices, Avalaire, LLC is restricting Avalaire Pyriprox 0.86 EC to no more than two applications per growing season. Avalaire Pyriprox 0.86 EC may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Follow local, state, and federal IPM and IRM recommendations. Read and follow all product labels before applying any insecticide.

## **WATERCRESS**

**GENERAL:** Avalaire Pyriprox 0.86 EC acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. Avalaire Pyriprox 0.86 EC has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since Avalaire Pyriprox 0.86 EC is an Insect Growth Regulator (IGR) and activity depends on the insect's development, evidence of activity will be slower than typical contact insecticides.

**Avalaire Pyriprox 0.86 EC** does exhibit translaminar movement which means that **Avalaire Pyriprox 0.86 EC** applied to the upper surfaces of the leaves will move to the lower surface of the leaf. This translaminar movement is very important to chemical control of whitefly since one of the major obstacles is getting the product to the underside of the leaves where whitefly are present.

PESTS	PRODUCT RATE PER ACRE	SPECIAL INSTRUCTIONS
Sharpshooters Whitefly	8 to 10 fl ozs	Apply with ground equipment as a full coverage spray (10 to 50 gals/A). Thorough coverage is critical for adequate control. It is essential to use adequate water volume to ensure thorough coverage.  Begin applications when whiteflies reach threshold levels per University/Extension recommendations.  Under severe pressure, use the higher recommended rates.  Only whole fields should be treated.

**Avalaire Pyriprox 0.86 EC** may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management (IPM) and Insect Resistance Management (IRM) programs.

- Do not apply within 7 days of harvest.
- Do not make more than 2 **Avalaire Pyriprox 0.86 EC** applications per growing season.
- Do not exceed 20 fl ozs **Avalaire Pyriprox 0.86 EC** per acre per calendar year.
- Do not apply earlier than 14 days after last **Avalaire Pyriprox 0.86 EC** treatment.
- Regardless of formulation, do not apply more than 0.134 lb of pyriproxyfen per acre per calendar year.
- Do not plant any crop other than those with registered pyriproxyfen uses in treated areas sooner than 30 days after the last application.

MANAGING INSECT RESISTANCE: Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant whitefly strains. To optimize resistance management practices, Avalaire, LLC is restricting Avalaire Pyriprox 0.86 EC to no more than two applications per growing season. Avalaire Pyriprox 0.86 EC may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Avalaire, LLC also does not recommend using rates below 8 fl ozs per acre for whitefly control because reduced rates can lead to a greater potential for resistance development. Follow local, state, and federal IPM and IRM recommendations. Read and follow all product labels before applying any insecticide.

#### WHITE SAPOTE

**GENERAL:** Avalaire Pyriprox 0.86 EC acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. Avalaire Pyriprox 0.86 EC has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since Avalaire Pyriprox 0.86 EC is an Insect Growth Regulator (IGR) and activity depends on the insect's development, evidence of activity will be slower than typical contact insecticides.

PESTS	PRODUCT RATE PER ACRE	SPECIAL INSTRUCTIONS
Black Scale Brown Soft Scale California Red Scale Florida Red Scale Snow Scale	16 fl ozs	Apply with ground equipment in 200 to 1500 gals/A. Apply in sufficient water volume for tree size. Thorough coverage is critical for adequate control. It is essential to use adequate water volume to ensure thorough coverage.
		Apply any time prior to fruit becoming infested when scale is in the crawler stage. Application at the 2 <sup>nd</sup> or 3 <sup>rd</sup> generation of scale may result in excessive dead scale remaining on the fruit at harvest. Thorough coverage is essential for good control.
		Avalaire Pyriprox 0.86 EC may be applied with superior spray oils at ½ to 1%. Follow the manufacturer's directions and recommendations on timing and rates.
		NOTE: For scale apply during emergence of scale crawlers, do not apply more than 16 fl ozs of <b>Avalaire Pyriprox 0.86 EC</b> per acre per year.

Citrus Black Fly Citrus Leafminer Citrus Whitefly	10 fl ozs	Apply with ground application equipment in 200 to 1500 gals/A. Apply in sufficient water volume for tree size. Thorough coverage is critical for control. It is essential to use adequate water volume to ensure thorough coverage.  Apply when pests are just beginning to build and before infestation has occurred. Thorough coverage is essential
		for good control.  NOTE: Do not make more than 2 applications of <b>Avalaire Pyriprox 0.86 EC</b> per acre per year.

**Avalaire Pyriprox 0.86 EC** may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management (IPM) and Insect Resistance Management (IRM) programs.

- Do not apply within 1 day of harvest.
- Do not exceed 26 fl ozs of **Avalaire Pyriprox 0.86 EC** per acre per calendar year.
- Do not apply earlier than 21 days after last **Avalaire Pyriprox 0.86 EC** treatment.
- Regardless of formulation, do not apply more than 0.175 lb of pyriproxyfen per acre per calendar year.

MANAGING INSECT RESISTANCE: Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant insect strains. To optimize resistance management practices, Avalaire, LLC is restricting Avalaire Pyriprox 0.86 EC to no more than two applications per growing season. Avalaire Pyriprox 0.86 EC may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Follow local, state, and federal Integrated Pest Management (IPM) and Insect Resistance Management (IRM) recommendations. Read and follow all product labels before applying any insecticide.

#### STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Store in a tightly closed container in a cool, dry place. Store in original container and out of reach of children, preferably in a locked storage area.

**PESTICIDE DISPOSAL:** Pesticide spray mixture or rinsate that cannot be used should be disposed of in a landfill approved for pesticides. Improper disposal of excess pesticide spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by the 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 ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration.]

[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 incineration.]

#### 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. 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.

[Avalaire Pyriprox<sup>[TM]</sup>] is a trademark of Avalaire, LLC

[Knack®] is a registered trademark of Valent U.S.A. Corporation.

Danitol is a registered trademark of Sumitomo Chemical Company, Ltd. Danitol is a restricted use product.

## **{LANGUAGE ON LABEL AFFIXED TO CONTAINER}**

PYRIPROXYFEN GROUP 7C INSECTICIDE

# Avalaire Pyriprox<sup>[™]</sup> 0.86 EC

Contains pyriproxyfen, the active ingredients used in [Knack\*]. [Insect Growth Regulator]

ACTIVE INGREDIENT:	(% by weight)
Pyriproxyfen*	11.23%
OTHER INGREDIENTS:	88.77%
TOTAL	100.0%
*(2-[1-methyl-2-(4-phenoxyphenoxy)ethoxy]pyridine)	

Contains 0.86 pound ai per gallon. Contains aromatic petroleum distillates.

## **KEEP OUT OF REACH OF CHILDREN** CAUTION

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.)

	iii detaii.)		
FIRST AID			
If on skin:	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 in eyes:	<ul> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> </ul>		
	<ul> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> </ul>		
	Call a poison control center or doctor for treatment advice.treatment advice.		
If swallowed:	<ul> <li>Call a poison control center or doctor immediately for treatment advice.</li> </ul>		
	<ul> <li>Have person sip a glass of water if able to swallow.</li> </ul>		
	<ul> <li>Do not induce vomiting unless told to do so by the poison control center or doctor.</li> </ul>		
	<ul> <li>Do not give anything by mouth to an unconscious person.</li> </ul>		
If inhaled:	Move person to fresh air.		
	<ul> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.</li> </ul>		
	<ul> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>		
•	HOT LINE NUMBER		

## 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 1-844-685-9173 for emergency medical treatment information.

#### **NOTE TO PHYSICIAN**

If ingested, probable mucosal damage may contraindicate the use of gastric lavage. This product contains a light hydrocarbon liquid; ingestion or subsequent vomiting can result in aspiration of this product, which can cause pneumonitis.

#### 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 CAUTION

Causes skin and eye irritation. Do not get on skin, in eyes or on clothing. Harmful if inhaled, swallowed or absorbed through skin. Avoid contact with skin, eyes or clothing. Avoid breathing vapor or spray mist. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove contaminated clothing and wash clothing before

ENVIRONMENTAL HAZARDS: This pesticide is toxic to fish and aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high-water mark. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water by disposing of equipment washwaters or rinsate. Avoid direct application and/or spray drift to bee hives.

[Note to EPA reviewer: If this product is shipped in containers greater than 50 lbs, the following environmental hazard statement will be added to the label:]

[Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other water unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.]

#### STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Store in a tightly closed container in a cool, dry place. Store in original container and out of reach of children, preferably in a locked storage

PESTICIDE DISPOSAL: Pesticide spray mixture or rinsate that cannot be used should be disposed of in a landfill approved for pesticides. Improper disposal of excess pesticide spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by the 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 ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration.]

[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 incineration.]

See inside label booklet for additional Precautionary Statements and Directions

[Avalaire Pyriprox<sup>[TM]</sup> 0.86 EC] is not manufactured, or distributed by Valent U.S.A. Corporation, seller of [Knack\*].

Manufactured for: EPA Reg. No.: 93930-9 Avalaire, LLC EPA Est. No.: 1204 Village Market Place, #173 NET WEIGHT: Morrisville, NC 27560