

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

OFFICE OF PREVENTION, PESTICIDES AND TOXIC SUBSTANCES

Ms. Julie Schlekau
Federal Registrations Manager
Registration & Regulatory Affairs
Valent U.S.A Corp.
1101 14<sup>th</sup> Street, N.W., Suite 150
Washington, DC 20005

DEC 2 9 2008

Dear Ms. Schlekau,

Subject: Label Amendment

Pyriproxyfen 0.86 EC Insect Growth Regulator

EPA Reg. No. 59639-160

Submission dated November 19, 2008

The label amendment above, submitted in connection with the Federal Insecticide, Rodenticide, and Fungicide Act, as amended, is acceptable provided you make the following change:

#### 1. Directions for Use:

a. Change 'Pyriproxyfen' to read 'Pyriproxyfen 0.86 EC Ag' in the Fruiting Vegetables table under the heading entitled "Product Rates per Acre" on page 14.

A stamped copy of the label is enclosed for your records. Submit three (3) copies of your final printed labeling before releasing the product for shipment. Please contact Kevin Sweeney, at (703) 305-5063 if you have any questions. Thank you for your cooperation in this matter.

Sincerely,

Richard Gebken

Product Manager 10

Insecticide Branch

Registration Division (7505P)

**Enclosure** 



# ACCEPTED with COMMENTS in EPA Letter Dated DEC 2 9 2001 Under the Federal Inscattcide Act, as amended, for the pesticide registered under EPA Reg. No.

GROUP 7C INSECTICIDE

# **PYRIPROXYFEN 0.86 EC Ag** INSECT GROWTH REGULATOR

Active Ingredient	Bv Wt.
*Pvriproxyfen	
*Pyriproxyfen Other Ingredients	
Total	
*(2-[1-methyl-2-(4-phenoxyphenoxy)ethoxy]pyridine)	
Contains 0.86 pound ai per gallon.	

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

## **CAUTION**

SEE NEXT PAGE FOR ADDITIONAL PRECAUTIONARY STATEMENTS

# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS & DOMESTIC ANIMALS CAUTION

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

#### **FIRST AID**

# If on skin or clothing:

- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15-20 minutes.
- Call a poison control center or doctor for treatment advice.

#### If swallowed:

- Call poison control center or doctor immediately for treatment advice.
- Have person sip a glass of water if able to swallow.
- Do not induce vomiting unless told to do so by the poison control center or doctor.
- Do not give anything by mouth to an unconscious person.

If in eyes:

- Hold eye open and rinse slowly and gently with water for 15-20 minutes.
- Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
- Call a poison control center or doctor for treatment advice.

If inhaled:

- 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 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 **800-892-0099** for emergency medical treatment information.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE):

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for selection category D on an EPA chemical resistance category selection chart.

**Applicators and other handlers must wear:** long-sleeved shirt and long pants, socks, shoes and chemical-resistant gloves (such as barrier laminate or butyl rubber = 14 mils).

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

#### **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.
- Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

#### **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.

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

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

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is: coveralls, chemical-resistant gloves, such as Barrier Laminate or Butyl Rubber = 14 mils, shoes plus socks.

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#### DISCLAIMER, RISKS OF USING THIS PRODUCT, LIMITED WARRANTY AND LIMITATION OF LIABILITY

IMPORTANT: Read the entire Label including this Disclaimer, Risks of Using this Product, Limited Warranty, and Limitation of Liability before using this product. If the terms are not acceptable THEN DO NOT USE THE PRODUCT; rather, return the unopened product within 15 days of purchase for a refund of the purchase price.

#### **RISKS OF USING THIS PRODUCT**

The Buyer and User (referred to collectively herein as "Buyer") of this product should be aware that there are inherent unintended risks associated with the use of this product which are impossible to eliminate. These risks include, but are not limited to, injury to plants and crops to which this product is applied, lack of control of the target pests or weeds, resistance of the target pest or weeds to this product, injury caused by drift, and injury to rotational crops caused by carryover in the soil. Such risks of crop injury, non-performance, resistance or other unintended consequences are unavoidable and may result because of such factors as weather, soil conditions, disease, moisture conditions, irrigation practices, condition of the crop at the time of application, presence of other materials either applied in the tank mix with this product or prior to application of this product, cultural practices or the manner of use or application, (or a combination of such factors) all of which are factors beyond the control of Valent. The Buyer should be aware that these inherent unintended risks may reduce the harvested yield of the crop in all or a portion of the treated acreage, or otherwise affect the crop such that additional care, treatment and expense are required to take the crop to harvest. If the Buyer chooses not to accept these risks, THEN THIS PRODUCT SHOULD NOT BE APPLIED. By applying this product Buyer acknowledges and accepts these inherent unintended risks AND TO THE FULLEST EXTENT ALLOWED BY LAW. AGREES THAT ALL SUCH RISKS ASSOCIATED WITH THE APPLICATION AND USE ARE ASSUMED BY THE BUYER.

Valent shall not be responsible for losses or damages (including, but not limited to, loss of yield, increased expenses of farming the crop or such incidental, consequential or special damages that may be claimed) resulting from use of this product in any manner not set forth on the label. Buyer assumes all risks associated with the use of this product in any manner or under conditions not specifically directed or approved on the label.

#### LIMITED WARRANTY

Valent warrants only that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the label, under average use conditions, when used strictly in accordance with the label and subject to the Risks of Using This Product as described above. To the extent consistent with applicable law AND AS SET FORTH ABOVE, VALENT MAKES NO OTHER WARRANTIES, EITHER EXPRESSED OR IMPLIED. No agent or representative of Valent or Seller is authorized to make or create any other express or implied warranty.

#### LIMITATION OF LIABILITY

To the fullest extent allowed by law, Valent or Seller is not liable for any incidental, consequential, indirect or special damages resulting from the use or handling of this product. The limitation includes, but is not limited to, loss of yield on all or any portion of the treated acreage, increased care, treatment or other expenses required to take the crop to harvest, increased finance charges or altered finance ratings, emotional or mental distress and/or exemplary damages. TO THE FULLEST EXTENT ALLOWED BY LAW, THE EXCLUSIVE REMEDY OF THE BUYER, AND THE EXCLUSIVE MAXIMUM LIABILITY OF VALENT OR SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT SHALL BE THE RETURN OF THE PURCHASE PRICE OF THIS PRODUCT OR, AT THE ELECTION OF VALENT OR SELLER, THE REPLACEMENT OF THE PRODUCT.

#### PROMPT NOTICE OF CLAIM

To the extent consistent with applicable law allowing such requirements, Valent must be provided notice as soon as Buyer has reason to believe it may have a claim, but in no event later than twenty-one days from date of planting, or twenty-one days from the date of application, whichever is latter, so that an immediate inspection of the affected property and growing crops can be made.

To the extent consistent with applicable law, if Buyer does not notify Valent of any claims, in such period, it shall be barred from obtaining any remedy.

#### NO AMENDMENTS

Valent and Seller offer this product, and Buyer accepts it, subject to the foregoing Disclaimer, Risks of Using This Product, Limited Warranty and Limitation of Liability, which may not be modified by any oral or written agreement.

#### **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 consistent with 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 purposes, Pyriproxyfen 0.86 EC Ag Insect Growth Regulator is a Group 7C insecticide. Any insect population may contain individuals naturally resistant to Pyriproxyfen 0.86 EC Ag and other Group 7C insecticides. The resistant individuals dominate the insect population if these insecticides are used repeatedly. These resistant insects may not be controlled by Pyriproxyfen 0.86 EC Ag or other Group 7C insecticides, although local experts should be consulted for local resistance recommendations. The classification scheme is based on mode of action. It is recognized that resistance of insects and mites to insecticides and acaricides can also result from enhanced metabolism, reduced penetration or behavioral changes that are not linked to any site of action classification but are specific for individual chemicals or chemical groupings. Despite this, alternation of compounds from different chemical classes remains a viable management technique.

To delay insecticide resistance

- Avoid exclusive repeated use of insecticides from the same chemical subgroup.
- Integrate other control methods (chemical, cultural, biological) into insect control programs.

For further information contact your local distributor.

#### GENERAL INFORMATION

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

Pyriproxyfen Insect Growth Regulator is intended for use in Insect Pest Management (IPM) or Insect Resistance Management (IRM) programs. Pyriproxyfen 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.

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

#### **BANANA AND PLANTAIN**

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

Pyriproxyfen 0.86 EC Ag does exhibit translaminar movement which means that Pyriproxyfen 0.86 EC Ag 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 RATES PER ACRE	SPECIAL INSTRUCTIONS		
Banana Plantain	Banded Wing Whitefly Greenhouse Whitefly Silverleaf Whitefly Sweetpotato Whitefly	13 to 16 fl oz	Apply with air or ground equipment in adequate water for uniform coverage:  By Air:		
			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.		
	Pyriproxyfen 0.86 EC Ag may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management (IPM) and Insect				
	Resistance Management (IRM) programs.				
	<ul> <li>Do not apply within 14 days of harvest.</li> <li>Do not make more than 3 Pyriproxyfen 0.86 EC Ag applications per growing season.</li> <li>Do not exceed 48 fl oz of Pyriproxyfen 0.86 EC Ag per acre per season.</li> <li>Regardless of formulation do not exceed 0.327 lb. pyriproxyfen per acre per season.</li> <li>Do not apply earlier than 14 days after last Pyriproxyfen 0.86 EC Ag treatment.</li> <li>Do not plant any crop other than those with registered pyriproxyfen uses in treated areas sooner than 30 days after the last application.</li> </ul>				

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, Valent U.S.A. Corporation is restricting Pyriproxyfen 0.86 EC Ag Insect Growth Regulator to three applications per growing season. Pyriproxyfen 0.86 EC Ag may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Valent also does not recommend using rates below 13 fl oz 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.

#### **BERRIES**

**GENERAL:** Pyriproxyfen 0.86 EC Ag Insect Growth Regulator acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. Pyriproxyfen 0.86 EC Ag has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since Pyriproxyfen 0.86 EC Ag 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
Berries:	Cherry Fruitworm	16 fl oz	Apply with ground or air equipment as
Bingleberry	Cranberry		a full coverage spray (minimum of
Blackberry including	Fruitworm	•	5 gals/A by air or 50 gals/A by
Bingleberry	Lecanium Scale		ground). Thorough coverage is critical
Black Satin Berry			for adequate control. It is essential to
Boysenberry			use adequate water volume to ensure
Cherokee Blackberry			thorough coverage.
Chesterberry			
Cheyenne Blackberry			Fruitworms: Apply when egg laying
Coryberry	•		begins and again at petal fall.
Darrowberry			Additional applications of another
Dewberry			insecticide, at 10 – 14 day intervals,
Dirksen thornless berry			may be needed under high population
Himalayaberry			pressure or sustained moth flight.
Hullberry			
Lavacaberry			Lecanium Scale: Apply at either
Lowberry			dormant, delayed dormant or an in-
Lucretiaberry			season cover spray. At dormant or
Mommoth Blackberry			delayed dormant use a spray oil at the
Marionberry			manufacturer's recommended oil rate.
Nectorberry			In a cover spray make applications
Olallieberry		·	when scale crawlers first emerge.
Oregon Evergreen Berry	·		Follow local recommendations
Phenomenalberry			regarding in-season use and rates of
Rangeberry		,	oil in your area.
Ravenberry			
Rossberry			
Shawnee Blackberry			
Youngberry			and/or alternated with commonly used
Blueberry			ited Pest Management (IPM) and Insect
Currant	Resistance Managen	nent (IRM) progran	ns.
Elderberry			
Gooseberry		n 7 days of harves	
Huckleberry	'	e than 2 Pyriproxyl	fen 0.86 EC Ag applications per growing
Juneberry	season		
Lingonberry	Do not exceed 32 fl oz of Pyriproxyfen 0.86 EC Ag per acre per season.		
Loganberry	Do not apply earlier than 14 days after last Pyriproxyfon 0.86 EC Ag		
Raspberry, (black and red)	treatment.		
Salal	Regardless of formulation do not exceed 0.218 lb pyripioxyfen per acre per		
	season.		

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, Valent U.S.A. Corporation is restricting Pyriproxyfen 0.86 EC Ag Insect Growth Regulator to two applications per growing season. Pyriproxyfen 0.86 EC Ag 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**

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

Pyriproxyfen 0.86 EC Ag does exhibit translaminar movement which means that Pyriproxyfen 0.86 EC Ag 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 RATES PER ACRE	SPECIAL INSTRUCTIONS
Brassica Leafy Vegetables: Broccoli Broccoli Raab (rapini) Brussels Sprouts Cabbage Cauliflower Cavalo Broccolo Chinese Broccoli (gai lon) Chinese Cabbage (bok choy and napa) Chinese Mustard (gai choy) Collards Kale Kohlrabi Mizuna Mustard Greens Mustard Spinach Rape Greens Turnip Greens	Banded Wing Whitefly Greenhouse Whitefly Silverleaf Whitefly Sweetpotato Whitefly	8 to 10 fl oz	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.
•	<ul> <li>season.</li> <li>Do not exceed 20 fl of the properties of</li></ul>	nan 2 Pyriproxyfen 0.86 oz Pyriproxyfen 0.86 EC han 14 days after last P lation do not exceed 0.1	EC Ag applications per growing  Ag per acre per season.  yriproxyfen 0.86 EC Ag  34 lb pyriproxyfen per acre per egistered pyriproxyfer uses in

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, Valent U.S.A. Corporation is restricting Pyriproxyfen 0.86 EC Ag Insect Growth Regulator to two applications being rowing season. Pyriproxyfen 0.86 EC Ag may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Valent also does not recommend using rates below 8 fl oz/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**

**GENERAL:** Pyriproxyfen 0.86 EC Ag Insect Growth Regulator acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. Pyriproxyfen 0.86 EC Ag has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since Pyriproxyfen 0.86 EC Ag 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 RATES PER ACRE	SPECIAL INSTRUCTIONS
Bulb Vegetables: Garlic Garlic, Great Headed Leek Onion, Dry Bulb Onion, Green Onion, Welsh Shallot	Onion Thrips	8 fl oz	FOR SUPPRESSION OF ONION THRIPS: Apply with ground equipment in adequate water for uniform coverage (20 to 50 gals/A). Begin applications when thrips reach threshold levels per University/Extension. Thorough coverage is critical for adequate water volume to ensure thorough coverage.
	<ul> <li>Do not apply within 3 days of harvest.</li> <li>Do not make more than 2 Pyriproxyfen 0.86 EC Ag applications per growing season.</li> <li>Do not exceed 16 fl oz of Pyriproxyfen 0.86 EC Ag per acre per season.</li> <li>Do not apply earlier than 14 days after last Pyriproxyfen 0.86 EC Ag treatment.</li> <li>Regardless of formulation do not exceed 0.134 lb pyriproxyfen per acre per season.</li> <li>Do not plant any crop other than those with registered pyriproxyfen uses in treated areas sooner than 30 days after the last application.</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, Valent U.S.A. Corporation is restricting Pyriproxyfen 0.86 EC Ag Insect Growth Regulator to two applications per growing season. Pyriproxyfen 0.86 EC Ag 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.

#### COTTON

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

Pyriproxyfen 0.86 EC Ag does exhibit translaminar movement which means that Pyriproxyfen 0.86 EC Ag 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.

CROP	PESTS	PRODUCT RATE PER ACRE	SPECIAL INSTRUCTIONS		
Cotton	Banded Wing Whitefly Greenhouse Whitefly	8 to 10 fl oz	Apply with air or ground equipment in adequate water for uniform coverage:		
	Silverleaf Whitefly Sweetpotato Whitefly	Do not apply less than 8 fl oz/A	By Air: 3 to 10 gals/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	Do not make more than 1 Pyriproxyfen 0.86 EC Ag application per growing season.			
		Do not exceed 10 fl oz Pyriproxyfen 0.86 EC Ag per acre per season.			
,		Regardless of formulation do not exceed 0.067 lb pyriproxyfen per acre per season.			
		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, Valent U.S.A. Corporation is restricting Pyriproxyfen 0.86 EC Ag Insect Growth Regulator to one application per growing season. Pyriproxyfen 0.86 EC Ag Insect Growth Regulator may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Valent also does not recommend using rates below 8 fl oz 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 (IRM) and Insect Resistance Management (IRM) recommendations. Read and follow all product labels before applying any insecticide.

# CITRUS (Including Ugli Fruit and White Sapote)

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

CROP	PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS
Citrus Ugli Fruit White Sapote	Black Scale Brown Soft Scale California Red Scale Florida Red Scale Snow Scale	16 fl oz	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 anytime 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.
			Pyriproxyfen 0.86 EC Ag may be applied with superior spray oils at 1/2 to 1%. Follow the manufacturer's directions and recommendations on timing and rates.
·			NOTE: For scale apply only one application during emergence of scale crawlers per calendar year.
	Citrus Black Fly Citrus Leafminer Citrus Whitefly	10 fl oz	Apply with ground application 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.
			and before infestation has popurred. Thorough coverage is essential for good control.
			or alternated with commonly used insecticides to nt (IPM) and Insect Resistance Management
	<ul><li>Do not exceed 26</li><li>Do not apply earlie</li></ul>	than 2 Pyriproxyfen 0.8 fl oz of Pyriproxyfen 0.8 r than 21 days after las	86 EC Ag applications per growing season. 6 EC Ag per acre per season. t Pyriproxyfen 0.86 EC Ag treatment. 0.134 lb pyriproxyfen per acre per season.

continued

#### **CITRUS** (continued)

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, Valent U.S.A. Corporation is restricting Pyriproxyfen 0.86 EC Ag Insect Growth Regulator to two applications per growing season. Pyriproxyfen 0.86 EC Ag 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.

#### **CRANBERRY**

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

CROP	PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS
Cranberry	Cherry Fruitworm Cranberry Fruitworm Lecanium Scale	16 fl oz	Apply with ground or air equipment as a full coverage spray (minimum of 5 gals/A by air or at least 20 gals/A by ground). Thorough coverage is critical for adequate control. It is essential to use adequate water volume to ensure thorough coverage.
			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.
			Lecanium Scale: Apply at either dormant, delayed dormant or an in-season cover spray. At dormant or delayed dormant use a śpray oil at the manufacturer's recommended oil rate. In a cover spray make applications when scale crawlers first emerge. Follow ocal recommendations regarding in-season use and rates of oil in your area.
	comply with local Integ programs.	rated Pest Management (	Iternated with commonly used insecticides to IPM) and Insect Resistance Management (IRM)
	<ul><li>Do not exceed 32 f</li><li>Do not apply earlier</li></ul>	than 2 Pyriproxyfen 0.86 I oz of Pyriproxyfen 0.86 E r than 14 days after last P	EC Ag applications per growing season.  EC Ag per acre per season.  Priproxyfen 0.86 EC Ag treatment.  18 lb pyriproxyfen per acre per season.

**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, Valent U.S.A. Corporation is restricting Pyriproxyfen 0.86 EC Ag Insect Growth Regulator to two applications per growing season. Pyriproxyfen 0.86 EC Ag 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.

#### **CUCURBITS**

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

Pyriproxyfen 0.86 EC Ag does exhibit translaminar movement which means that Pyriproxyfen 0.86 EC Ag 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 RATES PER ACRE	SPECIAL INSTRUCTIONS
Cucurbits: 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 oz  Do not apply less than 8 fl oz/A	Apply with air or ground equipment in adequate water for uniform coverage:  By Air:
	<ul> <li>Only whole fields should be treated</li> <li>Do not apply within 7 days of harvest.</li> <li>Do not make more than 2 Pyriproxyfen 0.86 EC Ag applications per glowing season.</li> <li>Do not exceed 20 fl oz Pyriproxyfen 0.86 EC Ag per acre per season.</li> <li>Do not apply earlier than 14 days after last Pyriproxyfen 0.86 EC Ag treatment.</li> <li>Regardless of formulation do not exceed 0.134 lb pyriproxyfen per acre per season.</li> <li>Do not plant any crop other than those with registered pyriproxyfen uses in treated areas sooner than 30 days after the last applications.</li> </ul>		

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, Valent U.S.A. Corporation is restricting Pyriproxyfen 0.86 EC Ag Insect Growth Regulator to two applications per growing season. Pyriproxyfen 0.86 EC Ag may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Valent also does not recommend using rates below 8 fl oz 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

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

Pyriproxyfen 0.86 EC Ag does exhibit translaminar movement which means that Pyriproxyfen 0.86 EC Ag 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 RATES PER ACRE	SPECIAL INSTRUCTIONS
Fruiting	Banded Wing	8 to 10 fl oz	Apply with air or ground equipment in
Vegetables:	Whitefly		adequate water for uniform coverage:
Eggplant	Greenhouse	Do not apply less	By Air:3 to10 gals./A.
Ground Cherry	Whitefly	than 8 fl oz/A of	By Ground:10 to 50 gals/A.
Okra	Silverleaf Whitefly	Pyriproxyfen when	
Pepino	Sweetpotato	used as a stand	HIGHER WATER VOLUMES PROVIDE
Pepper	Whitefly	alone application.	IMPROVED INSECT CONTROL.
Tomatillo			
Tomato			Begin application when whiteflies reach
		·	threshold levels per University/Extension
		,	recommendations (e.g. 3 to 5 adults per leaf
	,	i	and/or equivalent levels of immatures). Under
•			severe pressure, use the higher
			recommended rates.
			Out whele folds about the tracted
			Only whole fields should be treated.
	Banded Wing	6 to 8 fl oz	Apply as a tank mix with ground equipment
	Whitefly		for uniform coverage (25 to 150 gals/A by
	Cabbage Looper	+	ground). Make application when eggs or
	Green Peach	·	insects first appear. If control is needed
	Aphid	Orthene® 75 S	during this period use an alternate insecticide
	Greenhouse	0.66 to 1.33 lb/A	registered for the target pest.
	Whitefly		· · · · · · · · · · · · · · · · · · ·
	(immatures &	or	Pyriproxyfen 0.86 EC Ag may also be mixed
·	adults)		or alternated with commonly used
	Silverleaf Whitefly	Orthene 97	insecticides to comply with local IPM
	Sweetpotato	0.5 to 1.0 lb/A	programs.
	Whitefly		Court Con
	Tobacco		Comply with all applicable directions,
	Hornworm		restrictions and precautions on the registered
			labels for Orthene 75 S of Orthene 97.
		hin 1 day of harvest.	
	<ul> <li>Do not make more than 2 Pyriproxyfen 0.86 EC Ag applications per growing séason.</li> </ul>		
	Do not exceed 20 fl oz Pyriproxyfen 0.86 EC Ag per acre per season.		
	Do not apply earlier than 14 days after last Pyriproxyfen 0.86 EC Ag treatment.		
	Regardless of formulation do not exceed 0.109 lb pyriproxyfen per acre per season.		
	Do not plant any crop other than those with registered pyriproxyfen uses in treated areas sooner than 30 days after the last application.		
<u> </u>	areas sooner th	an 50 days after the las	st application.

continued

#### FRUITING VEGETABLES (continued)

CROP	PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS
Fruiting Vegetables: Tomato	Banded Wing Whitefly Beet Armyworm Fruitworm Greenhouse Whitefly (immatures & adults) Potato Aphid	6 to 8 fl oz + Monitor <sup>®</sup> 4 Spray 24 fl oz	EARLY SEASON WHITEFLY CONTROL PROGRAM FOR REDUCTION OF GEMINIVIRUS: Apply as a tank mix with ground equipment for uniform coverage (10 to 120 gals/A). Make
	Silverleaf Whitefly Sweetpotato Whitefly Thrips Tomato Pinworm Yellowstriped Armyworm	+ Danitol <sup>®</sup> 2.4 EC Spray 10-2/3 fl oz	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.
			Pyriproxyfen 0.86 EC Ag 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 labels for Monitor 4 Spray and Danitol 2.4 EC Spray.
	<ul> <li>Do not exceed 16 fl oz Py</li> <li>Do not apply earlier than</li> <li>Regardless of formulation</li> <li>Do not plant any crop oth</li> </ul>	2 Pyriproxyfen 0.86 EC Ag yriproxyfen 0.86 EC Ag pe 14 days after last Pyriprox n do not exceed 0.134 lb p	kyfen 0.86 EC Ag tjeatment. byriproxyfen per acie per season. red pyriproxyfen uses in treated

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, Valent U.S.A. Corporation is restricting Pyriproxyfen 0.86 EC Ag Insect Growth Regulator to two applications per growing season. Pyriproxyfen 0.86 EC Ag 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.

#### GRAPE

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

CROP	PESTS	PRODUCT RATE PER ACRE	SPECIAL INSTRUCTIONS	
Grape	Glassy-Winged Sharpshooter Grape Berry Moth Lecanium Scale	16 fl oz	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 inseason use and rates of oil in your area.	
	<ul> <li>Do not apply within 21 days of harvest.</li> <li>Do not make more than 2 Pyriproxyfen 0.86 EC Ag applications per growing season.</li> <li>Do not exceed 32 fl oz Pyriproxyfen 0.86 EC Ag per acre per season.</li> <li>Do not apply earlier than 14 days after last Pyriproxyfen 0.86 EC Ag treatment.</li> <li>Regardless of formulation, do not apply more than 0.218 lb active of pyriproxyfen per acre per season.</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, Valent U.S.A. Corporation is restricting Pyriproxyfen 0.86 EC Ag Insect Growth Regulator to two applications per growing season. Pyriproxyfen 0.86 EC Ag 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.

# LEGUME VEGETABLES (Succulent or Dried)

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

Pyriproxyfen 0.86 EC Ag does exhibit translaminar movement which means that Pyriproxyfen 0.86 EC Ag 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.

**LEGUME VEGETABLES** (continued)

	LEGUME VEGETABLES (continued)					
CROPS	PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS			
Legume Vegetables :	Silverleaf Whitefly	8 to 10 fl oz	EARLY SEASON WHITEFLY			
Beans (Lupinus):	Sweetpotato		PROGRAM: Apply with ground			
Grain Lupin	Whitefly		equipment in adequate water for			
Sweet Lupin .			uniform coverage (10 to 50 gals/A.			
White Lupin			Thorough coverage is critical for			
White Sweet Lupin			adequate control. It is essential to			
Beans ( <i>Phaaseolus</i> ):			use adequate water volume to			
Field Bean			ensure thorough coverage.			
Kidney Bean						
Lima Bean		·	Begin applications when whiteflies			
Navy Bean			reach threshold levels per			
Pinto Bean			University/Extension			
Runner Bean			recommendations (e.g. 3 to 5 adults			
Snap Bean			per leaf and/or equivalent levels of			
Tepary Bean		,	immatures).			
Wax Bean						
Bean (Vigna):			Under severe pressure, use the			
Adzuki Bean			higher recommended rates.			
Asparagus Bean						
Blackeyed Pea		,	Only whole fields should be treated.			
Catjang						
Chinese Longbean		·				
Cowpea						
Crowder Pea		·	·			
Moth Bean						
Mung Bean	•					
Rice Bean						
Southern Pea			·			
Urd Bean						
Yardlong Bean						
Broad Bean (fava)						
Chickpea (garbanzo)		<u> </u>				
Guar			nd/or alternated with commonly used			
Jackbean			d Pest Management (IPM) and Insect			
Lablab Bean	Resistance Manage	ement (IRM) programs	الم المراجعة			
Lentil						
Pea (Pisum):		hin 7 days of harvest.	icecie			
Dwarf Pea	1	ore than 2 Pyriproxyfei	ո 0.86 EC Ag applications per growing			
Edible-podded Pea	season.					
English Pea			0.86 EC Ag peræcre per sέ aεοῆ.			
Field Pea		rlier than 14 days after	· last Pyriproxyfen 2,86 EC Åg			
Garden Pea	treatment.		. 10.404 11			
Green Pea	-	ormulation do not exce	ed 0.134 lb pyriproxyfen per acre per			
Snowpea	season.					
Sugar Snap Pea	Do not plant any crop other than those with registered pyriproxyfer uses in					
Pigeon Pea		oner than 30 days aft				
Soybean .		stock to graze treated				
Sword Bean	Do not use on le	egume vegetables vari	eties grown for livestock feed.			
MANACINIC INCECT BEGIET						

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, Valent U.S.A. Corporation is restricting Pyriproxyfen 0.86 EC Ag Insect Growth Regulator to two applications per growing season. Pyriproxyfen 0.86 EC Ag may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Valent also does not recommend using rates below 8 fl oz 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.

#### OLIVE

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

CROP	PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS		
Olive	Black Scale	13 to 16 fl oz	Apply with ground equipment in 100 to 400 gals/A.		
	San Jose Scale		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 in-season use and rates of oil in your area.		
			Under heavy scale pressure, use the higher rate of Pyriproxyfen 0.86 EC Ag.		
	Pyriproxyfen 0.86 EC Ag may be mixed and/or alternated with commonly used insecticides to comply with local Insect Pest Management (IPM) and Resistance Management (IRM) progra				
	Do not apply with	Do not apply within 7 days of harvest.			
			0.86 EC Ag applications per growing season.		
			.86 EC Ag per acre per season.		
	<ul> <li>Do not apply ear</li> </ul>	lier than 14 days after la	ast Pyriproxyfen 0.86 EC Ag treatment.		
		Regardless of formulation do not exceed 0.218 lb pyriproxyfen per acre per season.			

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, Valent U,S.A. Corporation is restricting Pyriproxyfen 0.86 EC Ag Insect Growth Regulator to two applications per grewing season. Pyriproxyfen 0.86 EC Ag 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:** Pyriproxyfen 0.86 EC Ag Insect Growth Regulator acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. Pyriproxyfen 0.86 EC Ag has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since Pyriproxyfen 0.86 EC Ag is an insect growth regulator (IGR) and activity depends on the insects' development, evidence of activity will be slower than typical contact insecticides.

CROPS	PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS	
Pasture Grass and Rangeland	Cricket Grasshopper Locust	8 to 10 fl oz	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 PROVIDE IMPROVED INSECT CONTROL.	
			Begin application when pests reach threshold levels per University/Extension recommendations.	
			Under severe pressure, use the higher recommended rates.	
	<ul> <li>Do not make more than 2 Pyriproxyfen 0.86 EC Ag applications per growing season.</li> <li>Do not exceed 20 fl oz Pyriproxyfen 0.86 EC Ag per acre per season.</li> <li>Regardless of formulation do not exceed 0.134 lb pyriproxyfen per acre per season.</li> <li>Do not apply earlier than 14 days after last Pyriproxyfen 0.86 EC Ag treatment.</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, Valent U.S.A. Corporation is restricting Pyriproxyfen 0.86 EC Ag Insect Growth Regulator to two applications per growing season. Pyriproxyfen 0.86 EC Ag 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.

#### **PAWPAW**

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

Pyriproxyfen 0.86 EC Ag does exhibit translaminar movement which means that Pyriproxyfen 0.86 EC Ag 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.

CROP	PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS	
Pawpaw	Scale Whitefly	13 to 16 fl oz	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.	
			Scale: 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. 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 Pyriproxyfen.	
In-season sprays of Pyriproxyfen 0.86 EC Ag may not protect fruit from bler			may not protect fruit from blemishes by scale.	
	Pyriproxyfen 0.86 EC Ag may be mixed and/or alternated with commonly used insection to comply with local Integrated Pest Management (IPM) and Insect Resistance Management (IRM) programs.			
	<ul><li>Do not make m</li><li>Do not exceed</li><li>Do not apply ea</li></ul>	48 fl oz of Pyriproxyfen 0. arlier than 14 days after la	.86 EC Ag applications per growing season 86 EC Ag per acre per รออรุษณ์ st Pyriproxyfen 0.86 EC Ag treatment 0.327 lb pyriproxyfen per acre per season.	

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, Valent U.S.A. Corporation is restricting Pyriproxyfen 0.86 EC Ag Insect Growth Regulator to three applications per growing season. Pyriproxyfen 0.86 EC Ag 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**

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

CROP	PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS	
Pineapple	Black Scale Brown Soft Scale California Red Scale Florida Red Scale Snow Scale	16 fl oz	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 anytime 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.	
			Pyriproxyfen 0.86 EC Ag may be applied with superior spray oils at 1/2 to 1%. Follow the manufacturer's directions and recommendations on timing and rates.	
	Pyriproxyfen may be mixed and/or alternated with commonly used insecticides to cor local Integrated Pest Management (IPM) and Insect Resistance Management (IRM)			
	<ul> <li>Do not apply within 1 day of harvest.</li> <li>Do not make more than 2 Pyriproxyfen 0.86 EC Ag applications per calendar year.</li> <li>Do not exceed 32 fl oz of Pyriproxyfen 0.86 EC Ag per acre per season.</li> <li>Do not apply earlier than 21 days after last Pyriproxyfen 0.86 EC Ag treatment.</li> <li>Regardless of formulation do not exceed 0.134 lb pyriproxyfen per acre per season.</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, Valentouse. Corporation is restricting Pyriproxyfen 0.86 EC Ag Insect Growth Regulator to two applications per growing season. Pyriproxyfen 0.86 EC Ag 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 fedaral IPM and IRM recommendations. Read and follow all product labels before applying any insecticide.

#### **POME FRUIT**

**GENERAL:** Pyriproxyfen 0.86 EC Ag Insect Growth Regulator acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. Pyriproxyfen 0.86 EC Ag has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since Pyriproxyfen 0.86 EC Ag 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 RATES PER ACRE	SPECIAL INSTRUCTIONS
Pome Fruit: Apple Crabapple Loquat Mayhaw Quince	Codling Moth  Suppression of: Pandemis Leafroller Obliquebanded	13 to 16 fl oz	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
Quince	Leafroller		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 Pyriproxyfen 0.86 EC Ag. Follow local recommendations regarding in season use and rates of oil in your area.
			Obliquebanded and Pandemis Leafroller: Apply to the over-wintering larvae at the pink to petal fall tree growth stage. Pyriproxyfen 0.86 EC Ag does not directly control the larvae but inhibits normal pupation and adult emergence.
	Florida Red Scale Lecanium Scale San Jose Scale	13 to 16 fl oz	Apply by ground with airblast equipment in a minimum of 50 gals/A. Thorough coverage is critical for control. It is escential 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 Pyriproxyfen 0.86 EC Ag.  Scale: For control in-season, make application in cover sprays when scale crawlers first emerge. The use of 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.

continued

#### POME FRUIT (continued)

CROPS	PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS
Pome Fruit: Apple Crabapple Loquat Mayhaw	Green Apple Aphid Rosy Apple Aphid Spirea Aphid Spotted Tentiform Leafminer	10 to 16 fl oz	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
Quince	Western Tentiform Leafminer	•	<b>Leafminers</b> : 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 2 <sup>nd</sup> cover for 2 <sup>nd</sup> generation.
			Rosy Apple Aphid: Apply at 1/2" 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 Oriental Pear	Pear Psylla	13 to 16 fl oz	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.
			Apply a single application during the delayed dormant to pink stage of growth at 16 fl oz/A or make two applications from delayed dormant through petal fall stage of growth at 13 to 16 fl oz/A. Make application just before sustained egg lay is anticipated.
			DO NOT USE SKIP ROWS DURING APPLICATION.
			For in-season control of pear psylla, use an insecticide recommended for this use.
	Lecanium Scale San Jose Scale	13 to 16 fl oz	Apply by ground with airblast equipment in 190 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 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.

continued

#### POME FRUIT (continued)

CROPS	PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS	
Pome Fruit: Pear	Codling Moth	13 to 16 fl oz	Apply by ground with airblast equipment in 100 to 400 gals/A.	
Oriental Pear	Suppression of: Obliquebanded Leafroller Pandemis Leafroller		1st Generation Codling Moth: Apply at 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 Pyriproxyfen 0.86 EC Ag. 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.	
	<ul> <li>Pyriproxyfen 0.86 EC Ag may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management (IPM) and Insect Resistance Management (IRM) programs.</li> <li>Do not apply within 45 days of harvest.</li> <li>Do not make more than 2 Pyriproxyfen 0.86 EC Ag applications per growing season.</li> <li>Do not exceed 32 fl oz of Pyriproxyfen 0.86 EC Ag per acre per season.</li> </ul>			
			riproxyfen 0.86 EC Ag treatment.  8 lb pyriproxyfen per acre per season.	

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, Valent U.S.A. Corporation is restricting Pyriproxyfen 0.86 EC Ag Insect Growth Regulator to two applications per growing season. Pyriproxyfen 0.86 EC Ag 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.

#### **POMEGRANATE**

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

Pyriproxyfen 0.86 EC Ag does exhibit translaminar movement which means that Pyriproxyfen 0.86 EC Ag 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.

CROP	PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS	
Pomegranate	Banded Wing Whitefly Greenhouse Whitefly Silverleaf Whitefly Sweetpotato Whitefly	13 to 16 fl oz	Apply with air or ground equipment in adequate water for uniform coverage:  By Air:	
			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.	
	<ul> <li>Do not make more the</li> <li>Do not exceed 48 floe</li> <li>Do not apply earlier the</li> <li>Regardless of formula</li> <li>Do not plant any crop</li> </ul>	within 14 days of harvest. more than 3 Pyriproxyfen 0.86 EC Ag applications per growing season. ed 48 fl oz of Pyriproxyfen 0.86 EC Ag per acre per season. earlier than 14 days after last Pyriproxyfen 0.86 EC Ag treatment. of formulation do not exceed 0.327 lb pyriproxyfen per acre per season; any crop other than those with registered pyriproxyfen uses in treated 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 frankgement practices, Valent U.S.A. Corporation is restricting Pyriproxyfen 0.86 EC Ag Insect Growth Regulator to three applications per growing season. Pyriproxyfen 0.86 EC Ag may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Valent also does not recommend using rates below 13 fl oz 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**

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

Pyriproxyfen 0.86 EC Ag does exhibit translaminar movement which means that Pyriproxyfen 0.86 EC Ag 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 RATES PER ACRE	SPECIAL INSTRUCTIONS
Root & Tuber	Banded Wing Whitefly	8 fl oz	Apply with ground equipment
Vegetables:	Greenhouse Whitefly		in adequate water for uniform
Arracacha	Silverleaf Whitefly		coverage (20 to 50 gals/A).
Arrowroot	Sweetpotato Whitefly		
Artichoke, Chinese			HIGHER WATER VOLUMES
Artichoke, Jerusalem		•	MAY PROVIDE IMPROVED
Beet, Garden			INSECT CONTROL.
Beet, Sugar			
Burdock, Edible			Begin applications when
Canna, Edible			whiteflies reach threshold
Carrot	-	}	levels per
Cassava, (bitter and sweet)			University/Extension
Celeriac			recommendations (e.g. 3 to 5
Chaoyote (root)			adults per leaf and/or
Chervil, Turnip-rooted			equivalent levels of
Chicory			immatures).
Chufa	·		· .
Dasheen (taro)		·	Under severe pressure, use
Ginger			the higher recommended
Ginseng			rates.
Horseradish			idles.
Leren			Only whole fields should be
Parsley, Turnip-rooted			treated.
Parsnip			
Potato			
Radish			CHICK CO.
Radish, Oriental	<ul> <li>Do not apply within :</li> </ul>	3 days of harvest	(( ((((
Rutabaga			EC Ag applications per
Salsify	growing season.	man z Fynproxylen o.oc	
Salsify, Black		oz of Duriprovidon 0.96	EC Ag per acre per season.
Salsify, Spanish			Pyriproxyfen 0.86 EC Ag
Skirret	treatment.	man 14 days after last	F yriproxyleir 0.00 EC Agr
Sweet Potato		ulation do not exceed 0	109 lb pyriproxyfen per acre
Tanier	per season.	alation do not exceed 0.	Too to pyriproxyren per acre
Turmeric		on other than these with	registered pyriproxyfen uses in
Turnip		er than 30 days after the	
Yam, Bean		ck to graze treated area	
Yam, True	Do not anow ilvestor	on to graze treated area	

continued

#### **ROOT AND TUBER VEGETABLES** (continued)

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, Valent U.S.A. Corporation is restricting Pyriproxyfen 0.86 EC Ag Insect Growth Regulator to two applications per growing season. Pyriproxyfen 0.86 EC Ag may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Valent also does not recommend using rates below 8 fl oz 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.

#### STONE FRUIT

**GENERAL:** Pyriproxyfen 0.86 EC Ag Insect Growth Regulator acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. Pyriproxyfen 0.86 EC Ag has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since Pyriproxyfen 0.86 EC Ag 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 RATES PER ACRE	SPECIAL INSTRUCTIONS	
Stone Fruit: Apricot Cherry Chickasaw Plum Damson Plum	Lecanium Scale San Jose Scale	13 to 16 fl oz	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.	
Fresh Prune Japanese Plum Nectarine Peach Plum	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.	
Plumcot Prune			Under heavy scale pressure, use the higher rate of Pyriproxyfen.	
			Peach Twig Borer: Pyriproxyfen 0.86 EC Ag 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 Pyriproxyfen 0.86 EC Ag may not protect fruit from blemishes by scale.			
Pyriproxyfen 0.86 EC Ag may be mixed and/or alternated with com to comply with local Integrated Pest Management IPM and Insect I (IRM) programs.  Do not apply within 14 days of harvest. Do not make more than 3 Pyriproxyfen 0.86 EC Ag application Do not exceed 48 fl oz of Pyriproxyfen 0.86 EC Ag per acre pe Do not apply earlier than 14 days after last Pyriproxyfen 0.86 E Regardless of formulation do not exceed 0.327 lb pyriproxyfen			Management IPM and Insect Resistance Management	
			oxyfen 0.86 EC Ag applications per growing season. xyfen 0.86 EC Ag per acre per season. after last Pyriproxyfen 0.86 EC Ag 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, Valent U.S.A. Corporation is restricting Pyriproxyfen 0.86 EC Ag Insect Growth Regulator to three applications per growing season. Pyriproxyfen 0.86 EC Ag 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.

#### STRAWBERRY

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

Pyriproxyfen 0.86 EC Ag exhibits translaminar movement which means that Pyriproxyfen 0.86 EC Ag 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.

CROP	PESTS	PRODUCT RATE PER ACRE	SPECIAL INSTRUCTIONS	
Strawberry	Banded Wing Whitefly Greenhouse Whitefly Silverleaf Whitefly Sweetpotato Whitefly	10 fl oz	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.	
	<ul> <li>Do not apply within 2 days of harvest.</li> <li>Do not make more than 2 Pyriproxyfen 0.86 EC Ag applications per growing season.</li> <li>Do not exceed 20 fl oz Pyriproxyfen 0.86 EC Ag per acre per season.</li> <li>Do not apply earlier than 30 days after last Pyriproxyfen 0.86 EC Ag treatment.</li> <li>Regardless of formulation, do not apply more than 0.134 lb of pyriproxyfen per acre per season.</li> <li>Do not plant any crop other than those with registered pyriproxyfen uses in treated areas sooner than 30 days after the last application.</li> </ul>			

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, Valent U.S.A. Corporation is restricting Pyriproxyfen 0.86 EC Ag Insect Growth Regulator to two applications per growing season. Pyriproxyfen 0.86 EC Ag 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 Integrated Resistance Management (IRM) recommendations. Read and followall product labels before applying any insecticide.

#### TREE NUTS

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

CROP	PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS		
Tree Nuts: Almond	Black Scale San Jose Scale Suppression of: Peach Twig Borer	13 to 16 fl oz	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 inseason use and rates of oil in your area.		
	·		Pyriproxyfen 0.86 EC Ag has provided good suppression of Peach Twig Borer when applied delayed dormant through bloom sprays.		
	<ul> <li>Almond:</li> <li>Do not apply within 21 days of harvest.</li> <li>Do not make more than 1 Pyriproxyfen 0.86 EC Ag application per growing season.</li> <li>Do not exceed 16 fl oz of Pyriproxyfen 0.86 EC Ag per acre per season.</li> <li>Regardless of formulation do not exceed 0.109 lb pyriproxyfen per acre per season.</li> </ul>				

continued

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. Valent U.G.A. Corporation is restricting Pyriproxyfen 0.86 EC Ag Insect Growth Regulator to one application per growing season. Pyriproxyfen 0.86 EC Ag 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 (continued)

CROPS	PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS		
Tree Nuts: Beechnut Brazil Butternut Cashew Chestnut	Codling Moth Dusky Veined Aphid Walnut Aphid	16 fl oz	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.		
Chinquapin Filbert (Hazelnut) Hickory Macadamia Pecan Pistachio Walnut			1st Generation Codling Moth: Apply at 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 Pyriproxyfen. 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 oz	Apply with ground equipment in 100 to 400 gals/A at either dormant, delayed dormant or an inseason 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.		
	Pyriproxyfen 0.86 EC Ag 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 Pyriproxyfen 0.86 EC Ag applications per growing season.  Do not exceed 32 fl oz of Pyriproxyfen 0.86 EC Ag per acre per season.  Do not apply earlier than 14 days after last Pyriproxyfen 0.86 EC Ag 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, Valent U.S.A. Corporation is restricting Pyriproxyfen 0.86 EC Ag Insect Growth Regulator to two applications per growing season. Pyriproxyfen 0.86 EC Ag 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:** Pyriproxyfen 0.86 EC Ag Insect Growth Regulator acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. Pyriproxyfen 0.86 EC Ag has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since Pyriproxyfen 0.86 EC Ag 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	PEST	PRODUCT RATE PER ACRE	SPECIAL INSTRUCTIONS
Tropical & Subtropical Fruit: Acerola Atemoya Avocado Biriba Black Sapote Canistel Cherimoya Custard Apple Feijoa Guava Ilama Jaboticaba Longan Lychee Mamey Sapote Mango	Scale	16 fl oz	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 in-season use and rates of oil in your area.
Passionfruit Papaya Pulasan Rambutan Sapodilla Soursop Spanish Lime Star Apple Starfruit Sugar Apple Wax Jambu	<ul> <li>Pyriproxyfen 0.86 EC Ag may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management (IPM) and Insect Resistance Management (IRM) programs.</li> <li>Do not apply within 14 days of harvest.</li> <li>Do not make more than 2 Pyriproxyfen 0.86 EC Ag applications per growing season.</li> <li>Do not exceed 32 fl oz of Pyriproxyfen 0.86 EC Ag per acre per season.</li> <li>Do not apply earlier than 14 days after last Pyriproxyfen 0.86 EC Ag treatment.</li> <li>Regardless of formulation do not exceed 0.218 lb pyriproxyfen per acre per season.</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 Pyriproxyfen 0.86 EC Ag insect strains. To optimize resistance management practices, Valent U.S.A. Corporation is restricting Pyriproxyfen 0.86 EC Ag Insect Growth Regulator to two applications per growing season. Pyriproxyfen 0.86 EC Ag 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.

#### STORAGE AND DISPOSAL

#### PESTICIDE STORAGE

Store in a cool dry place.
Keep pesticide in original container.
Keep container closed when not in use.
Do not put concentrate or dilute into food or drink containers.
Not for use or storage in or around the home.
Do not contaminate water, food or feed by storage, disposal or cleaning of equipment.
For help with any spill, leak, fire or exposure involving this material, call day or night 800-892-0099.

#### PESTICIDE DISPOSAL

Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

#### **CONTAINER DISPOSAL**

Non-refillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

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