U.S. ENVIRONMENTAL PROTECTION AGENCY Office of Pesticide Programs Registration Division (7505P) 1200 Pennsylvania Ave., N.W. Washington, D.C. 20460	EPA Reg. Number:         Date of Issuance:           89168-108         8/27/2020	
NOTICE OF PESTICIDE: <u>X</u> Registration Reregistration	Term of Issuance: Unconditional	
(under FIFRA, as amended)	Name of Pesticide Prod LIBERTY PYRIF	luct: PROXYFEN 0.86 EC
Name and Address of Registrant (include ZIP Code): LIBERTY CROP PROTECTION, LLC 1800 FALL RIVER DRIVE, SUITE 100 LOVELAND, C0 80538		
<b>Note:</b> Changes in labeling differing in substance from that accepted in connection with this registration Registration Division prior to use of the label in commerce. In any correspondence on this product al		
<ul> <li>On the basis of information furnished by the registrant, the above naunder the Federal Insecticide, Fungicide and Rodenticide Act.</li> <li>Registration is in no way to be construed as an endorsement or reco Agency. In order to protect health and the environment, the Admini time suspend or cancel the registration of a pesticide in accordance name in connection with the registration of a product under this Act registrant a right to exclusive use of the name or to its use if it has b</li> <li>This product is unconditionally registered in accordance with FIFR.</li> <li>1. Submit and/or cite all data required for registration/reregistration product when the Agency requires all registrants of similar product when the revised final printed label for the recordance for shipment.</li> </ul>	mmendation of th strator, on his mo with the Act. The is not to be const een covered by of A section $3(c)(5)$ ation/registration products to submi	his product by the tion, may at any acceptance of any trued as giving the thers. provided that you: review of your t such data.
Signature of Approving Official: Sincerely, Shanta Adeeb, Product Manager 10 Invertebrate-Vertebrate Branch 2 Registration Division (7505P) Office of Pesticide Programs EPA Form 8570-6	Date: 8/27/20	020

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

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under 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.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records. Please also note that the record for this product currently contains the following CSFs:

- Basic CSF dated 05/12/2020
- Alternate CSF 1 dated 05/12/2020
- Alternate CSF 2 dated 05/12/2020

If you have any questions, please contact Virna Stillwaugh by phone at 703-347-8506, or via email at <u>Stillwaugh.Virna@epa.gov</u>.

Enclosure

# Sublabel A

[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 7C INSECTICIDE

# LIBERTY PYRIPROXYFEN 0.86 EC

**INSECT GROWTH REGULATOR** 

ACTIVE INGREDIENT:	By Weight
Pyriproxyfen*, (2-[1-methyl-2-(4-phenoxyphenoxy)ethoxy]pyridine):	11.23%
OTHER INGREDIENTS**:	
TOTAL:	

\*Contains 0.86 pound ai per gallon.

\*\*Contains aromatic petroleum distillates.

# KEEP OUT OF REACH OF CHILDREN CAUTION

See inside label booklet for First Aid, Precautionary Statements and Directions for Use.

EPA Reg. No.: 89168-108

EPA Est. No.:

Net Contents: \_\_\_\_ Gal

Manufactured For: LIBERTY CROP PROTECTION, LLC 1880 FALL RIVER DRIVE, SUITE 100 LOVELAND, CO 80538

[Contains pyriproxyfen, the active ingredients used in [Distance® IGR] [Knack®] [and] [Esteem® 0.86 EC].]

[[LIBERTY PYRIPROXYFEN 0.86 EC] is not manufactured, or distributed by Valent U.S.A. Corporation, seller of [Distance<sup>®</sup> IGR] [Knack<sup>®</sup>] [and] [Esteem<sup>®</sup> 0.86 EC].]



Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the

89168-108

pesticide registered under

EPA Reg. No.

082620

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# {LANGUAGE INSIDE BOOKLET}

	FIRST AID
If swallowed:	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.
lf on skin or	Take off contaminated clothing.
clothing:	Rinse skin immediately with plenty of water for 15-20 minutes.
	Call a poison control center or doctor for further 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.
	<ul> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>
If in eyes:	<ul> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> </ul>
ii iii eyes.	<ul> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing</li> </ul>
	eye.
	<ul> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
	HOT LINE NUMBER
Have the produc	ct container or label with you when calling a poison control center or doctor, or going for
	emergency medical assistance, call CHEMTREC <sup>®</sup> at <b>1-800-424-9300</b> . For additional
	his pesticide product (including pesticide incidents), you may call CHEMTREC <sup>®</sup> at <b>1-800-</b>
	burs per day, 7 days per week.
· · · ·	NOTE TO PHYSICIAN
Containa notrala	um distillate. Veniting may equipe conjection provincia

Contains petroleum distillate. Vomiting may cause aspiration pneumonia.

# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Harmful if swallowed. Harmful if absorbed through skin, eyes or clothing. Avoid breathing vapor or spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

# PERSONAL PROTECTIVE EQUIPMENT (PPE):

**Applicators and other handlers must:** Wear long-sleeved shirt and long pants, shoes plus socks and chemical resistant gloves made of barrier laminate or viton  $\geq$ 14 mils.

USER SAFETY RECOMMENDATIONS

# Users should:

- Wash hands thoroughly with soap and water before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE 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.]

# PHYSICAL CHEMICAL HAZARDS

DO NOT not mix or allow coming in contact with oxidizing agent. Hazardous Chemical reaction may occur

# **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: wear long-sleeved shirt and long pants, shoes plus socks and chemical resistant gloves made of barrier laminate or viton  $\geq$  14 mils.

## 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.

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

#### **RESISTANCE MANAGEMENT RECOMMENDATIONS**

For resistance-management, LIBERTY PYRIPROXYFEN 0.86 EC contains a Group 7C insecticide. Any insect population may contain individuals naturally resistant to LIBERTY PYRIPROXYFEN 0.86 EC and other Group 7C 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 LIBERTY PYRIPROXYFEN 0.86 EC or other Group 7C 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 LIBERTY PYRIPROXYFEN 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.
  - o Mixtures with components having the same IRAC mode of action classification are not recommended for insect resistance management.
  - o When using mixtures, consider any known cross-resistance issues between the individual components for the targeted pest(s).
  - o Mixtures become less effective if resistance is already developing to one or both active ingredients, but they may still provide pest management benefits.
  - o 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 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 ft above the vegetative canopy, unless a greater application height is necessary for pilot safety.
- Applicators are required to use fine or coarser droplet size (ASABE S572.1), except for when applying ultra-low volume applications.
- Applicators must use 1/2 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.

#### Ground Boom 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 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.

#### **Boom-less Ground Applications:**

- Do not apply when wind speeds exceed 15 miles per hour at the application site.
- · Do not apply during temperature inversions.

#### SPRAY DRIFT ADVISORIES

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

#### IMPORTANCE OF DROPLET SIZE

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

#### **Controlling Droplet Size – Ground Boom**

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

#### **Controlling Droplet Size – Aircraft**

• Adjust Nozzles - Follow nozzle 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

#### **Boom-less Ground Applications:**

• Setting nozzles at the lowest effective height will help to reduce the potential for spray drift.

#### Handheld Technology Applications:

• Take precautions to minimize spray drift.

#### **USE RESTRICTIONS:**

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

#### **PRODUCT INFORMATION**

LIBERTY PYRIPROXYFEN 0.86 EC is intended for use in Integrated Pest Management (IPM) or Insect Resistance Management (IRM) programs. LIBERTY PYRIPROXYFEN 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.

LIBERTY PYRIPROXYFEN 0.86 EC acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. LIBERTY PYRIPROXYFEN 0.86 EC has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since LIBERTY PYRIPROXYFEN 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)**

LIBERTY PYRIPROXYFEN 0.86 EC acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. LIBERTY PYRIPROXYFEN 0.86 EC has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since LIBERTY PYRIPROXYFEN 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.

LIBERTY PYRIPROXYFEN 0.86 EC does exhibit translaminar movement which means that LIBERTY PYRIPROXYFEN 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 whiteflies since one of the major obstacles is getting the product to the underside of the leaves where whiteflies are present.

PESTS	PRODUCT RATES PER ACRE	APPLICATION INSTRUCTIONS
Artichoke Plume Moth Bandedwinged Whitefly	8 to 10 fl oz	Apply with ground equipment in adequate water for uniform coverage (10 to 50 gal/A).
Greenhouse Whitefly Silverleaf Whitefly		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 labeled rates.
		Whole fields should be treated but is not required.
LIBERTY PYRIPROXYFE	N 0.86 EC may I	be mixed and/or alternated with commonly used insecticides to comply with local

LIBERTY PYRIPROXYFEN 0.86 EC may be mixed and/or alternated with commonly used insecticides to comply with loca Integrated Pest Management (IPM) and Insect Resistance Management (IRM) programs.

#### **USE RESTRICTIONS:**

- Do not apply within 7 days of harvest.
- Do not make more than 2 LIBERTY PYRIPROXYFEN 0.86 EC applications per growing season.
- Do not exceed 20 fl oz of LIBERTY PYRIPROXYFEN 0.86 EC per acre per calendar year.
- Do not apply earlier than 14 days after last LIBERTY PYRIPROXYFEN 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, LIBERTY CROP PROTECTION, LLC is restricting LIBERTY PYRIPROXYFEN 0.86 EC to no more than two applications per growing season. LIBERTY PYRIPROXYFEN 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. LIBERTY CROP PROTECTION, LLC 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.

## ASPARAGUS[\*]

LIBERTY PYRIPROXYFEN 0.86 EC acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. LIBERTY PYRIPROXYFEN 0.86 EC has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since LIBERTY PYRIPROXYFEN 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.

LIBERTY PYRIPROXYFEN 0.86 EC does exhibit translaminar movement which means that LIBERTY PYRIPROXYFEN 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 whiteflies since one of the major obstacles is getting the product to the underside of the leaves where whiteflies are present.

PESTS	PRODUCT RATES PER ACRE	APPLICATION INSTRUCTIONS
Whiteflies	8 to 10 fl oz	Apply with ground equipment in adequate water for uniform coverage (10 to 50 gal/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 labeled rates.
		Whole fields should be treated but is not required.
USE REST	RICTIONS:	

• Do not apply within 7 days of harvest.

• Do not make more than 2 LIBERTY PYRIPROXYFEN 0.86 EC applications per growing season.

• Do not exceed 20 fl oz of LIBERTY PYRIPROXYFEN 0.86 EC per acre per calendar year.

- Do not apply earlier than 14 days after last LIBERTY PYRIPROXYFEN 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, LIBERTY CROP PROTECTION, LLC is restricting LIBERTY PYRIPROXYFEN 0.86 EC to no more than two applications per growing season. LIBERTY PYRIPROXYFEN 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. LIBERTY CROP PROTECTION, LLC 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.

#### **BANANA AND PLANTAIN**

LIBERTY PYRIPROXYFEN 0.86 EC acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. LIBERTY PYRIPROXYFEN 0.86 EC has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since LIBERTY PYRIPROXYFEN 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.

LIBERTY PYRIPROXYFEN 0.86 EC does exhibit translaminar movement which means that LIBERTY PYRIPROXYFEN 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 whiteflies since one of the major obstacles is getting the product to the underside of the leaves where whiteflies are present.

PESTS	PRODUCT RATES PER ACRE	APPLICATION INSTRUCTIONS
Bandedwinged 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:3 to 10 gal/ABy ground:10 to 50 gal/AHIGHER 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). Whole fields should be treated but is not required.

USE RESTRICTIONS:

- Do not apply within 14 days of harvest.
- Do not make more than 3 LIBERTY PYRIPROXYFEN 0.86 EC applications per growing season.
- Do not exceed 48 fl oz of LIBERTY PYRIPROXYFEN 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 LIBERTY PYRIPROXYFEN 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, LIBERTY CROP PROTECTION, LLC is restricting LIBERTY PYRIPROXYFEN 0.86 EC to no more than three applications per growing season. LIBERTY PYRIPROXYFEN 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. LIBERTY CROP PROTECTION, LLC 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.

#### **BERRY\***

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

LIBERTY PYRIPROXYFEN 0.86 EC acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. LIBERTY PYRIPROXYFEN 0.86 EC has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since LIBERTY PYRIPROXYFEN 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	APPLICATION INSTRUCTIONS
Bearberry Bilberry Blueberry, Lowbush Cloudberry Cranberry	Cherry Fruitworm Cranberry Fruitworm Lecanium Scale	16 fl oz	Apply with ground or air equipment as a full coverage spray (minimum of 5 gal/A by air or 50 gal/A by ground). Thorough coverage is critical for adequate control. It is essential to use adequate water volume to ensure thorough coverage.
Lingonberry Muntries Partridgeberry Cultivars, varieties, and/or hybrids of these			<b>Fruitworms:</b> 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.
			<b>Lecanium Scale:</b> 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.

LIBERTY PYRIPROXYFEN 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.

#### **USE RESTRICTIONS:**

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

\*Not for use in California.

**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, LIBERTY CROP PROTECTION, LLC is restricting LIBERTY PYRIPROXYFEN 0.86 EC to no more than two applications per growing season. LIBERTY PYRIPROXYFEN 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)

LIBERTY PYRIPROXYFEN 0.86 EC acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. LIBERTY PYRIPROXYFEN 0.86 EC has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since LIBERTY PYRIPROXYFEN 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.

LIBERTY PYRIPROXYFEN 0.86 EC does exhibit translaminar movement which means that LIBERTY PYRIPROXYFEN 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 whiteflies since one of the major obstacles is getting the product to the underside of the leaves where whiteflies are present.

Broccoli Broccoli Raab (rapini) Brussels Sprouts Cabbage Cauliflower Cavalo Broccoli (gai lon) Chinese Cabbage (bok choy and napa)Bandedwinged Whitefly Greenhouse Whitefly Silverleaf Whitefly Sweetpotato Whitefly Sweetpotato Whitefly8 to 10 fl oz for uniform coverage (10 to 50 gal/A).HIGHER WATER VOLUMES MAY PROVIDE IMPROVED INSECT CONTROL.HIGHER WATER VOLUMES MAY PROVIDE IMPROVED INSECT CONTROL.Cavalo Broccoli (gai lon) Chinese Mustard (gai choy) Collards Kale KohlrabiBegin 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 labeled rates.Under severe pressure, use the higher labeled rates.	CROPS	PESTS	PRODUCT RATE PER ACRE	APPLICATION INSTRUCTIONS
Mustard Greens Mustard Spinach Rape Greens Turnip Greens	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 Mustard Spinach Rape Greens	Greenhouse Whitefly Silverleaf Whitefly		for uniform coverage (10 to 50 gal/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 labeled

• Do not apply within 7 days of harvest.

• Do not make more than 2 LIBERTY PYRIPROXYFEN 0.86 EC applications per growing season.

• Do not exceed 20 fl oz of LIBERTY PYRIPROXYFEN 0.86 EC per acre per calendar year.

• Do not apply earlier than 14 days after last LIBERTY PYRIPROXYFEN 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, LIBERTY CROP PROTECTION, LLC is restricting LIBERTY PYRIPROXYFEN 0.86 EC to no more than two applications per growing season. LIBERTY PYRIPROXYFEN 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. LIBERTY CROP PROTECTION, LLC 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**

(Crop Group 3-07)

LIBERTY PYRIPROXYFEN 0.86 EC acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. LIBERTY PYRIPROXYFEN 0.86 EC has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since LIBERTY PYRIPROXYFEN 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	APPLICATION INSTRUCTIONS
Garlic Garlic, Great Headed Leek Onion, Dry Bulb Onion, Green Onion, Welsh Shallot	Onion Thrips Western Flower Thrips	8 fl oz	<b>FOR SUPPRESSION OF THRIPS:</b> Apply with ground equipment in adequate water for uniform coverage (20 to 50 gal/A). Begin applications when thrips reach threshold levels per University/Extension. Thorough coverage is critical for adequate water volume to ensure thorough coverage.

LIBERTY PYRIPROXYFEN 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.

# USE RESTRICTIONS:

- Do not apply within 3 days of harvest.
- Do not make more than 2 LIBERTY PYRIPROXYFEN 0.86 EC applications per growing season.
- Do not exceed 16 fl oz of LIBERTY PYRIPROXYFEN 0.86 EC per acre per calendar year.
- Do not apply earlier than 14 days after last LIBERTY PYRIPROXYFEN 0.86 EC treatment.
- Regardless of formulation, do not apply more than 0.108 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 with similar modes of action can lead to the buildup of resistant insect strains. To optimize resistance management practices, LIBERTY CROP PROTECTION, LLC is restricting LIBERTY PYRIPROXYFEN 0.86 EC to no more than two applications per growing season. LIBERTY PYRIPROXYFEN 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)

LIBERTY PYRIPROXYFEN 0.86 EC acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. LIBERTY PYRIPROXYFEN 0.86 EC has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since LIBERTY PYRIPROXYFEN 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	APPLICATION INSTRUCTIONS
Aronia Berry Blueberry, Highbush Blueberry, Lowbush Buffalo Currant Chilean Guava	Cherry Fruitworm Cranberry Fruitworm Lecanium Scale	16 fl oz	Apply with ground or air equipment as a full coverage spray (minimum of 5 gal/A by air or 50 gal/A by ground). Thorough coverage is critical for adequate control. It is essential to use adequate water volume to ensure thorough coverage.
Cranberry, Highbush Currant, Black Currant, Red Elderberry European Barberry Gooseberry			<b>Fruitworms:</b> 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.
Honeysuckle, Edible Huckleberry Jostaberry Juneberry (Saskatoon Berry) Lingonberry Native Currant			<b>Lecanium Scale:</b> 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.
Salal Sea Buckthorn Cultivars, varieties, and/or hybrids of these			

LIBERTY PYRIPROXYFEN 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.

#### USE RESTRICTIONS:

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

\*Not for use in California.

**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, LIBERTY CROP PROTECTION, LLC is restricting LIBERTY PYRIPROXYFEN 0.86 EC to no more than two applications per growing season. LIBERTY PYRIPROXYFEN 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)

LIBERTY PYRIPROXYFEN 0.86 EC acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. LIBERTY PYRIPROXYFEN 0.86 EC has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since LIBERTY PYRIPROXYFEN 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	APPLICATION INSTRUCTIONS
		PER ACRE	
Blackberry including:	Cherry Fruitworm	16 fl oz	Apply with ground or air equipment as a
Bingleberry	Cranberry Fruitworm		full coverage spray (minimum of 5 gal/A
Black Satin Berry	Lecanium Scale		by air or 50 gal/A by ground). Thorough
Boysenberry			coverage is critical for adequate control.
Cherokee Blackberry			It is essential to use adequate water
Chesterberry			volume to ensure thorough coverage.
Cheyenne Blackberry			Fruitworms: Apply when egg laying
Coryberry			begins and again at petal fall.
Darrowberry			Additional applications of another
Dewberry			insecticide, at 10 to 14-day intervals,
Dirksen Thornless Berry			may be needed under high population
Himalayaberry			pressure or sustained moth flight.
Hullberry			Lecanium Scale: Apply at either
Lavacaberry			dormant, delayed dormant or an in-
Lowberry			season cover spray. At dormant or
Lucretiaberry			delayed dormant use a spray oil at the
Mammoth Blackberry			manufacturer's recommended oil rate.
Marionberry			In a cover spray make applications
Necterberry			when scale crawlers first emerge.
Olallieberry			Follow local recommendations
Oregon Evergreen berry			regarding in-season use and rates of oil
Phenomenalberry			in your area.
Rangerberry			in your arou.
Ravenberry			
Rossberry			
Shawnee Blackberry			
Loganberry			
Raspberry, including:			
Bababerry			
Black raspberry			
Blackcap			
Caneberry			
Framboise			
Frambueso			
Himbeere			
Keriberry			
Mayberry Red raspberry			
Thimbleberry			
Tulameen			
Yellow raspberry			
Wild raspberry			
Youngberry			
Cultivars, varieties, and/or hybrids			
of these			
	1		

LIBERTY PYRIPROXYFEN 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.

# USE RESTRICTIONS:

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

\*Not for use in California.

**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, LIBERTY CROP PROTECTION, LLC is restricting LIBERTY PYRIPROXYFEN 0.86 EC to no more than two applications per growing season. LIBERTY PYRIPROXYFEN 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)

LIBERTY PYRIPROXYFEN 0.86 EC acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. LIBERTY PYRIPROXYFEN 0.86 EC has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since LIBERTY PYRIPROXYFEN 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	APPLICATION 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	Black Scale Brown Soft Scale California Red Scale Florida Red Scale Citrus Snow Scale	16 fl oz	Apply with ground equipment in 200 to 1500 gal/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. LIBERTY PYRIPROXYFEN 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.
Orange, Sweet Pummelo Russell River Lime Satsuma Mandarin Sweet Lime Tachibana Orange Tahiti Lime Tangelo Tangerine (mandarin) Tangor Trifoliate Orange Uniq Fruit Cultivars, varieties, and/or hybrids of these	Citrus Blackfly Citrus Leafminer Citrus Whitefly	10 fl oz	Apply with ground equipment in 200 to 1500 gal/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.

LIBERTY PYRIPROXYFEN 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.

# USE RESTRICTIONS:

- Do not apply within 1 day of harvest.
- Do not exceed 26 fl oz of LIBERTY PYRIPROXYFEN 0.86 EC per acre per calendar year.
- Do not make more than 2 applications of LIBERTY PYRIPROXYFEN 0.86 EC per acre per year.
- Regardless of formulation, do not apply more than 0.175 lb pyriproxyfen per acre per calendar year.
- Do not apply earlier than 21 days after last LIBERTY PYRIPROXYFEN 0.86 EC treatment.
- For scale apply during emergence of scale crawlers, do not apply more than 16 fl oz of LIBERTY PYRIPROXYFEN 0.86 EC per acre per 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, LIBERTY CROP PROTECTION, LLC is restricting LIBERTY PYRIPROXYFEN 0.86 EC to no more than two applications per growing season. LIBERTY PYRIPROXYFEN 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

LIBERTY PYRIPROXYFEN 0.86 EC acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. LIBERTY PYRIPROXYFEN 0.86 EC has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since LIBERTY PYRIPROXYFEN 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.

LIBERTY PYRIPROXYFEN 0.86 EC does exhibit translaminar movement which means that LIBERTY PYRIPROXYFEN 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 whiteflies since one of the major obstacles is getting the product to the underside of the leaves where whiteflies are present.

PESTS	PRODUCT RATE PER ACRE	APPLICATION INSTRUCTIONS
Bandedwinged Whitefly	8 to 10 fl oz	Apply with air or ground equipment in adequate water for uniform
Greenhouse Whitefly		coverage:
Silverleaf Whitefly		By Air: 3 to 10 gal/A
Sweetpotato Whitefly	Do not apply less than 8 fl oz/A.	By Ground: 10 to 50 gal/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 labeled rates.
		Whole fields should be treated but is not required.

#### USE RESTRICTIONS:

- Do not apply within 28 days of harvest.
- Do not make more than 1 LIBERTY PYRIPROXYFEN 0.86 EC application per growing season.
- Do not exceed 10 fl oz of LIBERTY PYRIPROXYFEN 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, LIBERTY CROP PROTECTION, LLC is restricting LIBERTY PYRIPROXYFEN 0.86 EC to no more than one application per growing season. LIBERTY PYRIPROXYFEN 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. LIBERTY CROP PROTECTION, LLC 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.

### CUCURBITS

#### (Crop Group 9)

LIBERTY PYRIPROXYFEN 0.86 EC acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. LIBERTY PYRIPROXYFEN 0.86 EC has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since LIBERTY PYRIPROXYFEN 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.

LIBERTY PYRIPROXYFEN 0.86 EC does exhibit translaminar movement which means that LIBERTY PYRIPROXYFEN 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 whiteflies since one of the major obstacles is getting the product to the underside of the leaves where whiteflies are present.

CROPS	PESTS	PRODUCT RATE PER ACRE	APPLICATION INSTRUCTIONS
Balsam Apple Balsam Pear Bitter Melon Cantaloupe Chayote Chinese Cucumber Chinese Waxgourd Citron Melon Cucumber Edible Gourd Gherkin <i>Momordica</i> spp. Muskmelon Pumpkin Summer Squash Watermelon Winter Squash	Bandedwinged Whitefly Greenhouse Whitefly Silverleaf Whitefly Sweetpotato Whitefly	8 to 10 fl oz Do not apply less than 8 fl oz/A.	<ul> <li>Apply with air or ground equipment in adequate water for uniform coverage:</li> <li>By Air: 3 to 10 gal/A</li> <li>By Ground: 10 to 50 gal/A</li> <li>HIGHER WATER VOLUMES MAY PROVIDE IMPROVED INSECT CONTROL.</li> <li>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).</li> <li>Under severe pressure, use the higher labeled rates.</li> <li>Whole fields should be treated but is not required.</li> </ul>

# USE RESTRICTIONS:

- Do not apply within 7 days of harvest.
- Do not make more than 2 LIBERTY PYRIPROXYFEN 0.86 EC applications per growing season.
- Do not exceed 20 fl oz of LIBERTY PYRIPROXYFEN 0.86 EC per acre per calendar year.
- Do not apply earlier than 14 days after last LIBERTY PYRIPROXYFEN 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 or insecticides with similar modes of action can lead to the buildup of resistant whitefly strains. To optimize resistance management practices, LIBERTY CROP PROTECTION, LLC is restricting LIBERTY PYRIPROXYFEN 0.86 EC to no more than one application per growing season. LIBERTY PYRIPROXYFEN 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. LIBERTY CROP PROTECTION, LLC 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 (Crop Group 8-10)

LIBERTY PYRIPROXYFEN 0.86 EC acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. LIBERTY PYRIPROXYFEN 0.86 EC has no activity on adult insects,

but hatching of eggs laid by treated adults will be suppressed. Since LIBERTY PYRIPROXYFEN 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.

LIBERTY PYRIPROXYFEN 0.86 EC does exhibit translaminar movement which means that LIBERTY PYRIPROXYFEN 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 whiteflies since one of the major obstacles is getting the product to the underside of the leaves where whiteflies are present.

CROPS	PESTS	PRODUCT RATE PER ACRE	APPLICATION INSTRUCTIONS
African Eggplant Bush Tomato Bell Pepper Cocona Currant Tomato Eggplant Garden Huckleberry Goji Berry Ground Cherry Martynia Naranjilla Okra Pea Eggplant Pepper, Bell Pepper, Nonbell Roselle	Bandedwinged Whitefly Greenhouse Whitefly Silverleaf Whitefly Sweetpotato Whitefly	8 to 10 fl oz	<ul> <li>Apply with air or ground equipment in adequate water for uniform coverage:</li> <li>By Air: 3 to 10 gal/A</li> <li>By Ground: 10 to 50 gal/A</li> <li>HIGHER WATER VOLUMES MAY PROVIDE IMPROVED INSECT CONTROL.</li> <li>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).</li> <li>Under severe pressure, use the higher labeled rates.</li> <li>Whole fields should be treated but is not required.</li> </ul>
Scarlet Eggplant Sunberry Tomatillo Tomato Tree Tomato Cultivars, varieties, and/or hybrids or these	BandedWing Whitefly Cabbage Looper Green Peach Aphid Greenhouse Whitefly (immatures & adults) Silverleaf Whitefly Sweetpotato Whitefly Tobacco Hornworm	6 to 8 fl oz	Apply as a tank mix with ground equipment for uniform coverage (25 to 150 gal/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.

LIBERTY PYRIPROXYFEN 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.

#### USE RESTRICTIONS:

- Do not apply within 1 day of harvest.
- Do not make more than 2 LIBERTY PYRIPROXYFEN 0.86 EC applications per growing season.
- Do not exceed 16 fl oz of LIBERTY PYRIPROXYFEN 0.86 EC per acre per calendar year.
- Do not apply less than 8 fl oz/A of LIBERTY PYRIPROXYFEN 0.86 EC when used as a stand-alone application.
- Do not apply earlier than 14 days after last LIBERTY PYRIPROXYFEN 0.86 EC treatment.
- Regardless of formulation, do not apply more than 0.108 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.

Tomato       Bandedwinged Whitefly Beet Armyworm       6 to 8 fl oz       EARLY SEASON WHITEFLY CONTROL PROGRAM         Greenhouse       Whitefly (immatures & adults)       +       Apply as a tank mix with ground equipment for uniform	CROPS	PESTS	PRODUCT RATE PER ACRE	APPLICATION INSTRUCTIONS
Potato Aphid       The active ingredient       coverage (10 to 120 gal/A).         Silverleaf Whitefly       ingredient       Make application when scouting first indicates adult whiteflies are on young plants. This may result in treatment immediately following transplanting.         Tomato Pinworm       rate       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 gal/A by ground). Make application when scouting indicates whiteflies are present.         LIBERTY PYRIPROXYFEN 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 fenpropathrin.		Beet Armyworm Greenhouse Whitefly (immatures & adults) Potato Aphid Silverleaf Whitefly Sweetpotato Whitefly Thrips Tomato Pinworm Yellowstriped Armyworm	+ The active ingredient Fenpropathrin at labeled rate	<ul> <li>FOR REDUCTION OF GEMINIVIRUS:</li> <li>Apply as a tank mix with ground equipment for uniform coverage (10 to 120 gal/A).</li> <li>Make application when scouting first indicates adult whiteflies are on young plants. This may result in treatment immediately following transplanting.</li> <li>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 gal/A by ground). Make application when scouting indicates whiteflies are present.</li> <li>LIBERTY PYRIPROXYFEN 0.86 EC may also be mixed or alternated with commonly used insecticides to comply with local IPM programs.</li> <li>Comply with all applicable directions, restrictions and precautions on the registered label for fenpropathrin.</li> </ul>

LIBERTY PYRIPROXYFEN 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.

#### **USE RESTRICTIONS:**

- Do not apply within 14 days of harvest.
- Do not make more than 2 LIBERTY PYRIPROXYFEN 0.86 EC applications per growing season.
- Do not exceed 16 fl oz LIBERTY PYRIPROXYFEN 0.86 EC per acre per calendar year.
- Do not apply earlier than 14 days after last LIBERTY PYRIPROXYFEN 0.86 EC treatment.
- Regardless of formulation, do not apply more than 0.108 lb pyriproxyfen per acre per calendar year.
- Do not plan 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 insect strains. To optimize resistance management practices, LIBERTY CROP PROTECTION, LLC is restricting LIBERTY PYRIPROXYFEN 0.86 EC to no more than two applications per growing season. LIBERTY PYRIPROXYFEN 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

LIBERTY PYRIPROXYFEN 0.86 EC acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. LIBERTY PYRIPROXYFEN 0.86 EC has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since LIBERTY PYRIPROXYFEN 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	APPLICATION INSTRUCTIONS
Glassy-Winged Sharpshooter Grape Berry Moth Lecanium Scale	16 fl oz	Apply with ground equipment as a full coverage spray (50 to 200 gal/A). Thorough coverage is critical for adequate control. It is essential to use adequate water volume to ensure thorough coverage.
		<b>Lecanium Scale:</b> 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.

LIBERTY PYRIPROXYFEN 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.

#### **USE RESTRICTIONS:**

- Do not apply within 21 days of harvest.
- Do not make more than 2 LIBERTY PYRIPROXYFEN 0.86 EC applications per growing season.
- Do not exceed 32 fl oz of LIBERTY PYRIPROXYFEN 0.86 EC per acre per calendar year.
- Do not apply earlier than 14 days after last LIBERTY PYRIPROXYFEN 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, LIBERTY CROP PROTECTION, LLC is restricting LIBERTY PYRIPROXYFEN 0.86 EC to no more than two applications per growing season. LIBERTY PYRIPROXYFEN 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)

LIBERTY PYRIPROXYFEN 0.86 EC acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. LIBERTY PYRIPROXYFEN 0.86 EC has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since LIBERTY PYRIPROXYFEN 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.

LIBERTY PYRIPROXYFEN 0.86 EC does exhibit translaminar movement which means that LIBERTY PYRIPROXYFEN 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 whiteflies since one of the major obstacles is getting the product to the underside of the leaves where whiteflies are present.

CROPS	PESTS	PRODUCT RATE PER ACRE	APPLICATION INSTRUCTIONS
Angelica Balm Basil	Whiteflies, including: Bandedwinged Whitefly	8 to 10 fl oz	Apply with ground equipment in adequate water for uniform coverage. A minimum of 20 gallons per acre for ground applications.
Borage Burnet Chamomile	Greenhouse Whitefly Silverleaf Whitefly Sweetpotato Whitefly		HIGHER WATER VOLUMES MAY PROVIDE IMPROVED INSECT CONTROL.
Catnip Chervil (dried)			Begin application when whiteflies reach threshold levels.
Chive Chive, Chinese Clary			Under severe pressure, use the higher labeled rates.
Coriander (leaf) Costmary Cilantro (leaf)			
Curry (leaf) 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			
<ul> <li>USE RESTRICTIONS:</li> <li>Do not apply within '</li> <li>Do not make more the second secon</li></ul>		XYFEN 0.86 EC	applications per growing season.
Do not exceed 20 fl	oz of A118.81 per acre per	r calendar year.	XYFEN 0.86 EC treatment.

Regardless of formulation, do not exceed 0.134 lb pyriproxyfen per acre per calendar year.

 Do not plant any crop other than those with registered LIBERTY PYRIPROXYFEN 0.86 EC uses in treated areas sooner than 30 days after the last application.

• Treat only whole fields.

**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, LIBERTY CROP PROTECTION, LLC is restricting LIBERTY PYRIPROXYFEN 0.86 EC to no more than two applications per growing season. LIBERTY PYRIPROXYFEN 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. LIBERTY CROP PROTECTION, LLC 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.

#### LEAFY VEGETABLES

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

LIBERTY PYRIPROXYFEN 0.86 EC acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. LIBERTY PYRIPROXYFEN 0.86 EC has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since LIBERTY PYRIPROXYFEN 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.

LIBERTY PYRIPROXYFEN 0.86 EC does exhibit translaminar movement which means that LIBERTY PYRIPROXYFEN 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 whiteflies since one of the major obstacles is getting the product to the underside of the leaves where whiteflies are present.

CROPS	PESTS	PRODUCT RATE PER ACRE	APPLICATION 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 Orach Parsley Purslane, Garden Purslane, Winter Radicchio (Red Chicory) Rhubarb Spinach New Zealand Spinach Vine Spinach	Bandedwinged Whitefly Greenhouse Whitefly Silverleaf Whitefly Sweetpotato Whitefly	PER ACRE 8 to 10 fl oz	Apply with ground equipment in adequate water for uniform coverage (10 to 50 gal/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 labeled rates. Whole fields should be treated but is not required.
Swiss Chard USE RESTRICTIONS:	1		1

- Do not apply within 14 days of harvest.
- Do not make more than 2 LIBERTY PYRIPROXYFEN 0.86 EC applications per growing season.
- Do not exceed 20 fl oz of LIBERTY PYRIPROXYFEN 0.86 EC per acre per calendar year.
- Do not apply earlier than 14 days after last LIBERTY PYRIPROXYFEN 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, LIBERTY CROP PROTECTION, LLC is restricting LIBERTY PYRIPROXYFEN 0.86 EC to no more than two applications per growing season. LIBERTY PYRIPROXYFEN 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. LIBERTY CROP PROTECTION, LLC 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.

# LEAVES OF ROOT & TUBER VEGETABLES

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

LIBERTY PYRIPROXYFEN 0.86 EC acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. LIBERTY PYRIPROXYFEN 0.86 EC has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since LIBERTY PYRIPROXYFEN 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.

LIBERTY PYRIPROXYFEN 0.86 EC does exhibit translaminar movement which means that LIBERTY PYRIPROXYFEN 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 whiteflies since one of the major obstacles is getting the product to the underside of the leaves where whiteflies are present.

PESTS	PRODUCT RATE PER ACRE	APPLICATION INSTRUCTIONS
Bandedwinged Whitefly Greenhouse Whitefly	8 to 10 fl oz	Apply with ground equipment in adequate water for uniform coverage (10 to 50 gal/A).
Silverleaf Whitefly Sweetpotato Whitefly		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 labeled rates.
		Whole fields should be treated but is not required.
	Bandedwinged Whitefly Greenhouse Whitefly Silverleaf Whitefly	PER ACREBandedwinged Whitefly Greenhouse Whitefly Silverleaf Whitefly8 to 10 fl oz

- USE RESTRICTIONS:
- Do not apply within 7 days of harvest.
- Do not make more than 2 LIBERTY PYRIPROXYFEN 0.86 EC applications per growing season.
- Do not exceed 16 fl oz of LIBERTY PYRIPROXYFEN 0.86 EC per acre per calendar year.
- Do not apply earlier than 14 days after last LIBERTY PYRIPROXYFEN 0.86 EC treatment.
- 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, LIBERTY CROP PROTECTION, LLC is restricting LIBERTY PYRIPROXYFEN 0.86 EC to no more than two applications per growing season. LIBERTY PYRIPROXYFEN 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. LIBERTY CROP PROTECTION, LLC 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.

#### LEGUME VEGETABLES Succulent or Dried (Crop Group 6)

LIBERTY PYRIPROXYFEN 0.86 EC acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. LIBERTY PYRIPROXYFEN 0.86 EC has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since LIBERTY PYRIPROXYFEN 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.

LIBERTY PYRIPROXYFEN 0.86 EC does exhibit translaminar movement which means that LIBERTY PYRIPROXYFEN 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 whiteflies since one of the major obstacles is getting the product to the underside of the leaves where whiteflies are present.

CROPS	PESTS	PRODUCT RATE	APPLICATION INSTRUCTIONS
	12010	PER ACRE	
Beans ( <i>Lupinus</i> ): Grain Lupin	Bandedwinged Whitefly Greenhouse Whitefly	8 to 10 fl oz	EARLY SEASON WHITEFLY PROGRAM: Apply with ground
Sweet Lupin	Silverleaf Whitefly		equipment in adequate water for
White Lupin White Sweet Lupin	Sweetpotato Whitefly		uniform coverage (10 to 50 gal/A). Thorough coverage is critical for
Beans ( <i>Phaseolus</i> ):			adequate control. It is essential to use
Field Bean			adequate water volume to ensure
Kidney Bean			thorough coverage.
Lima Bean			Begin application when whiteflies reach
Navy Bean			threshold levels per
Pinto Bean			University/Extension recommendations
Runner Bean			(e.g., 3 to 5 adults per leaf and/or
Snap Bean Tepary Bean			equivalent levels of immatures).
Wax Bean			Under severe pressure, use the higher
Bean ( <i>Vigna</i> ):			labeled rates.
Adzuki Bean			
Asparagus Bean			Whole fields should be treated but is not
Blackeyed Pea			required.
Catjang			
Chinese Longbean			
Cowpea Crowder Pea			
Moth Bean			
Mung Bean			
Rice Bean			
Southern Pea			
Urd Bean			
Yardlong Bean			
Broad Bean (fava)			
Chickpea (garbanzo)			
Guar Jackbean			
Lablab Bean			
Lentil			
Pea (Pisum):			
Dwarf Pea			
Edible-podded Pea			
English Pea			
Field Pea			
Garden Pea Green Pea			
Green Pea Snowpea			
Snowpea Sugar Snap Pea			
Pigeon Pea			
Soybean <sup>[1</sup> ]			
Sword Bean			

#### **USE RESTRICTIONS:**

- Do not apply within 7 days of harvest.
- Do not make more than 2 LIBERTY PYRIPROXYFEN 0.86 EC applications per growing season.
- Do not exceed 20 fl oz of LIBERTY PYRIPROXYFEN 0.86 EC per acre per calendar year.
- Do not apply earlier than 14 days after last LIBERTY PYRIPROXYFEN 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.
- Do not allow livestock to graze on treated areas.
- Do not use on legume vegetables varieties grown for livestock feed.

[<sup>1</sup>California only] [<sup>1</sup>New York only] [Not for use on soybeans]

**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, LIBERTY CROP PROTECTION, LLC is restricting LIBERTY PYRIPROXYFEN 0.86 EC to no more than two applications per growing season. LIBERTY PYRIPROXYFEN 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. LIBERTY CROP PROTECTION, LLC 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.

#### OLIVE

LIBERTY PYRIPROXYFEN 0.86 EC acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. LIBERTY PYRIPROXYFEN 0.86 EC has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since LIBERTY PYRIPROXYFEN 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	APPLICATION INSTRUCTIONS
Black Scale San Jose Scale	13 to 16 fl oz	Apply with ground equipment in 100 to 400 gal/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 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.
		Under heavy scale pressure, use the higher rate of LIBERTY PYRIPROXYFEN 0.86 EC.

LIBERTY PYRIPROXYFEN 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.

#### **USE RESTRICTIONS:**

- Do not apply within 7 days of harvest.
- Do not make more than 2 LIBERTY PYRIPROXYFEN 0.86 EC applications per growing season.
- Do not exceed 32 fl oz of LIBERTY PYRIPROXYFEN 0.86 EC per acre per calendar year.
- Do not apply earlier than 14 days after last LIBERTY PYRIPROXYFEN 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, LIBERTY CROP PROTECTION, LLC is restricting LIBERTY PYRIPROXYFEN 0.86 EC to no more than two applications per growing season. LIBERTY

PYRIPROXYFEN 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

LIBERTY PYRIPROXYFEN 0.86 EC acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. LIBERTY PYRIPROXYFEN 0.86 EC has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since LIBERTY PYRIPROXYFEN 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	APPLICATION INSTRUCTIONS
Crickets Grasshoppers Locusts	8 to 10 fl oz	<ul> <li>Apply with air or ground equipment in adequate water for uniform coverage:</li> <li>By air: 3 to 10 gal/A</li> <li>By ground: 10 to 50 gal/A</li> <li>HIGHER WATER VOLUMES PROVIDE IMPROVED INSECT CONTROL.</li> <li>Begin application when pests reach threshold levels per University/Extension recommendations.</li> <li>Under severe pressure, use the higher labeled rates.</li> </ul>
LIBERTY PYRIPRO	XYFEN 0.86 EC may I	be mixed and/or alternated with commonly used insecticides to comply with

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

#### **USE RESTRICTIONS:**

- Do not make more than 2 LIBERTY PYRIPROXYFEN 0.86 EC applications per growing season.
- Do not exceed 20 fl oz of LIBERTY PYRIPROXYFEN 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 LIBERTY PYRIPROXYFEN 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, LIBERTY CROP PROTECTION, LLC is restricting LIBERTY PYRIPROXYFEN 0.86 EC to no more than two applications per growing season. LIBERTY PYRIPROXYFEN 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

LIBERTY PYRIPROXYFEN 0.86 EC acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. LIBERTY PYRIPROXYFEN 0.86 EC has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since LIBERTY PYRIPROXYFEN 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.

LIBERTY PYRIPROXYFEN 0.86 EC does exhibit translaminar movement which means that LIBERTY PYRIPROXYFEN 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 whiteflies since one of the major obstacles is getting the product to the underside of the leaves where whiteflies are present.

PESTS	PRODUCT RATE PER ACRE	APPLICATION INSTRUCTIONS
Scales Whiteflies	13 to 16 fl oz	Apply 100 to 400 gal/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 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 LIBERTY PYRIPROXYFEN 0.86 EC.

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

LIBERTY PYRIPROXYFEN 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.

#### **USE RESTRICTIONS:**

- Do not apply within 14 days of harvest.
- Do not make more than 3 LIBERTY PYRIPROXYFEN 0.86 EC applications per growing season.
- Do not exceed 48 fl oz of LIBERTY PYRIPROXYFEN 0.86 EC per acre per calendar year.
- Do not apply earlier than 14 days after last LIBERTY PYRIPROXYFEN 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, LIBERTY CROP PROTECTION, LLC is restricting LIBERTY PYRIPROXYFEN 0.86 EC to no more than three applications per growing season. LIBERTY PYRIPROXYFEN 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

LIBERTY PYRIPROXYFEN 0.86 EC acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. LIBERTY PYRIPROXYFEN 0.86 EC has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since LIBERTY PYRIPROXYFEN 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	APPLICATION INSTRUCTIONS
Black Scale Brown Soft Scale California Red Scale Florida Red Scale Citrus Snow Scale	16 fl oz	<ul> <li>Apply with ground equipment in 20 to 50 gal/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.</li> <li>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. LIBERTY PYRIPROXYFEN 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.</li> </ul>

LIBERTY PYRIPROXYFEN 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.

#### **USE RESTRICTIONS:**

- Do not apply within 1 day of harvest.
- Do not make more than 2 LIBERTY PYRIPROXYFEN 0.86 EC applications per calendar year.
- Do not exceed 32 fl oz of LIBERTY PYRIPROXYFEN 0.86 EC per acre per calendar year.
- Do not apply earlier than 21 days after last LIBERTY PYRIPROXYFEN 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, LIBERTY CROP PROTECTION, LLC is restricting LIBERTY PYRIPROXYFEN 0.86 EC to no more than two applications per growing season. LIBERTY PYRIPROXYFEN 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)

LIBERTY PYRIPROXYFEN 0.86 EC acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. LIBERTY PYRIPROXYFEN 0.86 EC has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since LIBERTY PYRIPROXYFEN 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	APPLICATION INSTRUCTIONS	
Apple Azarole Crabapple	ese ties,	fl oz	13 to 16	Apply by ground with airblast equipment in a minimum of 50 gal/A. Thorough coverage is critical for control. It is essential to use adequate water volume to ensure thorough coverage.
Loquat Mayhaw Medlar Quince Quince, Chinese Quince, Japanese Tejocote Cultivars,varieties, and/or hybrids of these			1 <sup>st</sup> 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 LIBERTY PYRIPROXYFEN 0.86 EC. Follow local recommendations regarding in season use and rates of oil in your area.	
			<b>Obliquebanded and Pandemis Leafroller:</b> Apply to the overwintering larvae at the pink to petal fall tree growth stage. LIBERTY PYRIPROXYFEN 0.86 EC 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 gal/A. Thorough coverage is critical for control. It is essential to use adequate water volume to ensure thorough coverage.	
		se Scale	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 LIBERTY PYRIPROXYFEN 0.86 EC.	
			<b>Scale:</b> 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.	
	Apple Aphid Rosy Apple Aphid	10 to 16 fl oz	Apply by ground with airblast equipment in a minimum of 50 gal/A. Thorough coverage is critical for control. It is essential to use adequate water volume to ensure thorough coverage.	
	Spirea Aphid Spotted Tentiform Leafminer 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 2ns cover for 2 <sup>nd</sup> generation.	
			<b>Rosy Apple Aphid:</b> Apply at ½" green apple growth stage.	
			<b>Apple &amp; Spirea Aphid:</b> 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 oz	Apply by ground with airblast equipment in 75 to 400 gal/A with a superior spray oil at manufacturer's labeled 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 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 100 to 400 gal/A at delayed dormant with a superior spray oil at the manufacturer's labeled 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.
	Codling Moth	13 to 16	Apply by ground with airblast equipment in 100 to 400 gal/A.
	Suppression of: Obliquebanded Leafroller Pandemis Leafroller	fl oz	<b>1<sup>st</sup> Generation Codling Moth:</b> 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 LIBERTY PYRIPROXYFEN 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.

LIBERTY PYRIPROXYFEN 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.

# USE RESTRICTIONS:

- Do not apply within 45 days of harvest.
- Do not make more than 2 LIBERTY PYRIPROXYFEN 0.86 EC applications per growing season.
- Do not exceed 32 fl oz of LIBERTY PYRIPROXYFEN 0.86 EC per acre per calendar year.
- Do not apply earlier than 14 days after last LIBERTY PYRIPROXYFEN 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, LIBERTY CROP PROTECTION, LLC is restricting LIBERTY PYRIPROXYFEN 0.86 EC to no more than two applications per growing season. LIBERTY PYRIPROXYFEN 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

LIBERTY PYRIPROXYFEN 0.86 EC acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. LIBERTY PYRIPROXYFEN 0.86 EC has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since LIBERTY PYRIPROXYFEN 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.

LIBERTY PYRIPROXYFEN 0.86 EC does exhibit translaminar movement which means that LIBERTY PYRIPROXYFEN 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 whiteflies since one of the major obstacles is getting the product to the underside of the leaves where whiteflies are present.

PESTS	PRODUCT RATE PER ACRE	APPLICATION INSTRUCTIONS
Bandedwinged Whitefly Greenhouse Whitefly Silverleaf Whitefly Sweetpotato Whitefly	13 to 16 fl oz	<ul> <li>Apply with air or ground equipment in adequate water for uniform coverage:</li> <li>By air: 3 to 10 gal/A</li> <li>By ground: 10 to 50 gal/A</li> <li>HIGHER WATER VOLUMES MAY PROVIDE IMPROVED INSECT CONTROL.</li> <li>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).</li> <li>Whole fields should be treated but is not required.</li> </ul>
USE RESTRICTIONS:		

- Do not apply within 14 days of harvest.
- Do not make more than 3 LIBERTY PYRIPROXYFEN 0.86 EC applications per growing season.
- Do not exceed 48 fl oz of LIBERTY PYRIPROXYFEN 0.86 EC per acre per calendar year.
- Do not apply earlier than 14 days after last LIBERTY PYRIPROXYFEN 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, LIBERTY CROP PROTECTION, LLC is restricting LIBERTY PYRIPROXYFEN 0.86 EC to no more than three applications per growing season. LIBERTY PYRIPROXYFEN 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. LIBERTY CROP PROTECTION, LLC 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 (Crop Group 1)

LIBERTY PYRIPROXYFEN 0.86 EC acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. LIBERTY PYRIPROXYFEN 0.86 EC has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since LIBERTY PYRIPROXYFEN 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.

LIBERTY PYRIPROXYFEN 0.86 EC does exhibit translaminar movement which means that LIBERTY PYRIPROXYFEN 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 whiteflies since one of the major obstacles is getting the product to the underside of the leaves where whiteflies are present.

CROPS	PESTS	PRODUCT RATE PER ACRE	APPLICATION INSTRUCTIONS
Arracacha	Bandedwinged	8 fl oz	Apply with ground equipment in
Arrowroot	Whitefly		adequate water for uniform coverage
Artichoke, Chinese	Greenhouse		(20 to 50 gal/A).
Artichoke, Jerusalem	Whitefly		HIGHER WATER VOLUMES MAY
Beet, Garden	Silverleaf		PROVIDE IMPROVED INSECT
Beet, Sugar	Whitefly		CONTROL.
Burdock, Edible	Sweetpotato		CONTROL.
Canna, Edible	Whitefly		Begin applications when whiteflies
Carrot			reach threshold levels per
Cassava, (bitter and sweet)			University/Extension recommendations
Celeriac			(e.g., 3 to 5 adults per leaf and/or
Chayote (root)			equivalent levels of immatures).
Chervil, Turnip-rooted			Under acyara pressure, use the higher
Chicory			Under severe pressure, use the higher labeled rates.
Chufa			labeleu lates.
Dasheen (taro)			Whole fields should be treated but is
Ginger			not required.
Ginseng Horseradish			
Leren			
Parsley, Turnip-rooted Parsnip			
Potato			
Radish			
Radish, Oriental (dai kon)			
Rutabaga			
Salsify			
Salsify, Black			
Salsify, Spanish			
Skirret			
Sweet Potato			
Tanier			
Turmeric			
Turnip			
Yam, Bean			
Yam, True			
USE RESTRICTIONS:			
Do not apply within 7 days	s of harvest.		
Do not make more than 2	LIBERTY PYRIPRO	XYFEN 0.86 EC applicati	ons per growing season.

- Do not exceed 16 fl oz of LIBERTY PYRIPROXYFEN 0.86 EC per acre per calendar year.
- Do not apply earlier than 14 days after last LIBERTY PYRIPROXYFEN 0.86 EC treatment.
- Regardless of formulation, do not apply more than 0.108 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 or insecticides with similar modes of action can lead to the buildup of resistant whitefly strains. To optimize resistance management practices, LIBERTY CROP PROTECTION, LLC is restricting LIBERTY PYRIPROXYFEN 0.86 EC to no more than two applications per growing season. LIBERTY PYRIPROXYFEN 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. LIBERTY CROP PROTECTION, LLC 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.

#### SMALL FRUIT VINE CLIMBING CROPS (EXCEPT GRAPE)

(Subgroup 13-07E)

LIBERTY PYRIPROXYFEN 0.86 EC acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. LIBERTY PYRIPROXYFEN 0.86 EC has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since LIBERTY PYRIPROXYFEN 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	APPLICATION INSTRUCTIONS
Berry, Schisandra Gooseberry Grape, Amur River Kiwifruit, Fuzzy Kiwifruit, Hardy Maypop Cultivars, varieties and/or hybrids of these	Scales	16 fl oz	Apply with ground or air equipment as a full coverage spray (minimum of 5 gal/A by air or 50 gal/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.

LIBERTY PYRIPROXYFEN 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.

#### **USE RESTRICTIONS:**

- Do not apply within 30 days of harvest.
- Do not make more than 2 LIBERTY PYRIPROXYFEN 0.86 EC applications per growing season.
- Do not exceed 32 fl oz of LIBERTY PYRIPROXYFEN 0.86 EC per acre per calendar year.
- Do not apply earlier than 14 days after last LIBERTY PYRIPROXYFEN 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, LIBERTY CROP PROTECTION, LLC is restricting LIBERTY PYRIPROXYFEN 0.86 EC to no more than two applications per growing season. LIBERTY PYRIPROXYFEN 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)

LIBERTY PYRIPROXYFEN 0.86 EC acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. LIBERTY PYRIPROXYFEN 0.86 EC has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since LIBERTY PYRIPROXYFEN 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	APPLICATION INSTRUCTIONS	
Apricot Cherry Chickasaw Plum Damson Plum	Lecanium Scale San Jose Scale	13 to 16 fl oz	Apply in 100 to 400 gal/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	Suppression of: Peach Twig Borer Oriental Fruit Moth		<b>Scale:</b> Apply at dormant, delayed dormant or as an inseason cover spray: At dormant, delayed dormant, use a spray oil at the manufacturer's recommended oil rate.	
Plum Plumcot		Oriental Fruit Moth		Under heavy scale pressure, use the higher rate of LIBERTY PYRIPROXYFEN 0.86 EC.
Prune			<b>Peach Twig Borer:</b> LIBERTY PYRIPROXYFEN 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 LIBERTY PYRIPROXYFEN 0.86 EC may not protect fruit from blemishes by scale.

LIBERTY PYRIPROXYFEN 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.

#### USE RESTRICTIONS:

- Do not apply within 14 days of harvest.
- Do not make more than 3 LIBERTY PYRIPROXYFEN 0.86 EC applications per growing season.
- Do not exceed 48 fl oz of LIBERTY PYRIPROXYFEN 0.86 EC per acre per calendar year.
- Do not apply earlier than 14 days after last LIBERTY PYRIPROXYFEN 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, LIBERTY CROP PROTECTION, LLC is restricting LIBERTY PYRIPROXYFEN 0.86 EC to no more than three applications per growing season. LIBERTY PYRIPROXYFEN 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

LIBERTY PYRIPROXYFEN 0.86 EC acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. LIBERTY PYRIPROXYFEN 0.86 EC has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since LIBERTY PYRIPROXYFEN 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.

LIBERTY PYRIPROXYFEN 0.86 EC does exhibit translaminar movement which means that LIBERTY PYRIPROXYFEN 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 whiteflies since one of the major obstacles is getting the product to the underside of the leaves where whiteflies are present.

PESTS	PRODUCT RATE PER ACRE	APPLICATION INSTRUCTIONS
Bandedwinged Whitefly Greenhouse Whitefly Silverleaf Whitefly Sweetpotato Whitefly	10 fl oz	<ul> <li>Apply with ground equipment as a full coverage spray (100 to 400 gal/A). Thorough coverage is critical for adequate control. It is essential to use adequate water volume to ensure thorough coverage.</li> <li>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).</li> <li>Under severe pressure, use the higher labeled rates.</li> <li>Whole fields should be treated but is not required.</li> </ul>
LISE DESTRICTIONS		·

#### USE RESTRICTIONS:

- Do not apply within 2 days of harvest.
- Do not make more than 2 LIBERTY PYRIPROXYFEN 0.86 EC applications per growing season.
- Do not exceed 20 fl oz of LIBERTY PYRIPROXYFEN 0.86 EC per acre per calendar year.
- Do not apply earlier than 30 days after last LIBERTY PYRIPROXYFEN 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, LIBERTY CROP PROTECTION, LLC is restricting LIBERTY PYRIPROXYFEN 0.86 EC to no more than two applications per growing season. LIBERTY PYRIPROXYFEN 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)

LIBERTY PYRIPROXYFEN 0.86 EC acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. LIBERTY PYRIPROXYFEN 0.86 EC has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since LIBERTY PYRIPROXYFEN 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	APPLICATION INSTRUCTIONS
Almond	Black Scale San Jose Scale Suppression of: Peach Twig Borer	13 to 16 fl oz	Apply with ground equipment in 100 to 400 gal/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. LIBERTY PYRIPROXYFEN 0.86 EC has provided good suppression of Peach Twig Borer when applied delayed dormant through bloom sprays.

#### **USE RESTRICTIONS:**

- Do not apply within 21 days of harvest.
- Do not make more than 1 LIBERTY PYRIPROXYFEN 0.86 EC application per growing season.
- Do not exceed 16 fl oz of LIBERTY PYRIPROXYFEN 0.86 EC per acre per calendar year.
- Regardless of formulation, do not apply more than 0.108 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, LIBERTY CROP PROTECTION, LLC is restricting LIBERTY PYRIPROXYFEN 0.86 EC to one application per growing season. LIBERTY PYRIPROXYFEN 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.

PESTS	PRODUCT RATE PER ACRE	APPLICATION INSTRUCTIONS
Codling Moth Dusky Veined Aphid Walnut Aphid	16 fl oz	Apply with ground equipment in 100 to 400 gal/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.
		1 <sup>st</sup> 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 LIBERTY PYRIPROXYFEN 0.86 EC. Follow local recommendations regarding in-season use and rates of oil in your area.
Black Scale Brown Soft Scale Italian Pear Scale Lecanium Scale San Jose Scale Walnut Scale	13 to 16 fl oz	Apply with ground equipment in 100 to 400 gal/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.
Peach Twig Borer		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.
	Codling Moth Dusky Veined Aphid Walnut Aphid Black Scale Brown Soft Scale Italian Pear Scale Lecanium Scale San Jose Scale Walnut Scale Suppression of: Peach Twig Borer	PESTSRATE PER ACRECodling Moth Dusky Veined Aphid Walnut Aphid16 fl ozBlack Scale Brown Soft Scale Italian Pear Scale Lecanium Scale San Jose Scale Walnut Scale13 to 16 fl ozSuppression of:5

#### TREE NUTS (Crop Group 14) - continued

LIBERTY PYRIPROXYFEN 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.

#### **USE RESTRICTIONS:**

- Do not apply within 21 days of harvest.
- Do not make more than 2 LIBERTY PYRIPROXYFEN 0.86 EC applications per growing season.
- Do not exceed 32 fl oz of LIBERTY PYRIPROXYFEN 0.86 EC per acre per calendar year.
- Do not apply earlier than 14 days after last LIBERTY PYRIPROXYFEN 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, LIBERTY CROP PROTECTION, LLC is restricting LIBERTY PYRIPROXYFEN 0.86 EC to no more than two applications per growing

season. LIBERTY PYRIPROXYFEN 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**

LIBERTY PYRIPROXYFEN 0.86 EC acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. LIBERTY PYRIPROXYFEN 0.86 EC has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since LIBERTY PYRIPROXYFEN 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	APPLICATION INSTRUCTIONS
Atemoya Avocado Biriba	Scale	16 fl oz	Apply with ground or air equipment as a full coverage spray (minimum of 5 gal/A by air or 50 gal/A by ground). Thorough coverage is critical for adequate control. It is essential to use adequate water volume to ensure thorough coverage.
Black Sapote Canistel Cherimoya Custard Apple Feijoa Guava Ilama Jaboticaba Longan Lychee Mamey Sapote Mango Passionfruit Papaya Pulasan Rambutan Sapodilla Soursop Spanish Lime Star Apple Starfruit Sugar Apple Wax Jambu			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.

LIBERTY PYRIPROXYFEN 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.

#### **USE RESTRICTIONS:**

- Do not apply within 14 days of harvest.
- Do not make more than 2 LIBERTY PYRIPROXYFEN 0.86 EC applications per growing season.
- Do not exceed 32 fl oz of LIBERTY PYRIPROXYFEN 0.86 EC per acre per calendar year.
- Do not apply earlier than 14 days after last LIBERTY PYRIPROXYFEN 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, LIBERTY CROP PROTECTION, LLC is restricting LIBERTY PYRIPROXYFEN 0.86 EC to no more than two applications per growing season. LIBERTY PYRIPROXYFEN 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

LIBERTY PYRIPROXYFEN 0.86 EC acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. LIBERTY PYRIPROXYFEN 0.86 EC has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since LIBERTY PYRIPROXYFEN 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.

LIBERTY PYRIPROXYFEN 0.86 EC does exhibit translaminar movement which means that LIBERTY PYRIPROXYFEN 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 whiteflies since one of the major obstacles is getting the product to the underside of the leaves where whiteflies are present.

PESTS	PRODUCT RATE PER ACRE	APPLICATION INSTRUCTIONS
Sharpshooters Whiteflies	8 to 10 fl oz	Apply with ground equipment as a full coverage spray (10 to 50 gal/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 labeled rates.
		Whole fields should be treated but is not required.

LIBERTY PYRIPROXYFEN 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.

#### **USE RESTRICTIONS:**

- Do not apply within 7 days of harvest.
- Do not make more than 2 LIBERTY PYRIPROXYFEN 0.86 EC applications per growing season.
- Do not exceed 20 fl oz LIBERTY PYRIPROXYFEN 0.86 EC per acre per calendar year.
- Do not apply earlier than 14 days after last LIBERTY PYRIPROXYFEN 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, LIBERTY CROP PROTECTION, LLC is restricting LIBERTY PYRIPROXYFEN 0.86 EC to no more than two applications per growing season. LIBERTY PYRIPROXYFEN 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. LIBERTY CROP PROTECTION, LLC 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.

#### WHITE SAPOTE

LIBERTY PYRIPROXYFEN 0.86 EC acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. LIBERTY PYRIPROXYFEN 0.86 EC has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since LIBERTY PYRIPROXYFEN 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	APPLICATION INSTRUCTIONS
Black Scale Brown Soft Scale California Red Scale Florida Red Scale	16 fl oz	Apply with ground equipment in 200 to 1500 gal/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.
Citrus Snow Scale		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.
		LIBERTY PYRIPROXYFEN 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.
		For scale apply during emergence of scale crawlers, do not apply more than 16 fl oz of LIBERTY PYRIPROXYFEN 0.86 EC per acre per year.
Citrus Black Fly Citrus Leafminer Citrus Whitefly	10 fl oz	Apply with ground application equipment in 200 to 1500 gal/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.
		Do not make more than 2 applications of LIBERTY PYRIPROXYFEN 0.86 EC per acre per year.
		nd/or alternated with commonly used insecticides to comply act Resistance Management (IRM) programs.
USE RESTRICTIONS:		

• Do not apply within 1 day of harvest.

• Do not exceed 26 fl oz of LIBERTY PYRIPROXYFEN 0.86 EC per acre per calendar year.

• Do not apply earlier than 21 days after last LIBERTY PYRIPROXYFEN 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, LIBERTY CROP PROTECTION, LLC is restricting LIBERTY PYRIPROXYFEN 0.86 EC to no more than two applications per growing season. LIBERTY PYRIPROXYFEN 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, disposal, or cleaning of equipment.

#### PESTICIDE STORAGE

Keep this product in its tightly closed original container. Store in a cool, dry (preferably locked) area that is inaccessible to children and animals.

#### PESTICIDE DISPOSAL

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

#### **CONTAINER HANDLING**

[Use the following statement for non-refillable containers ≤ 5 gallons]

[Nonrefillable container. Do not reuse or refill this container. Clean container 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 reconditioning if appropriate or puncture and dispose of in a sanitary landfill or by other procedures approved by state and local authorities.]

#### [Use the following statement for non-refillable containers > 5 gallons]

[Nonrefillable container. Do not reuse or refill this container. Triple rinse container 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. Replace 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. Turn the container over onto its other 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. Turn the container over onto its other 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. Turn the container over onto its other 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. Turn the container over onto its other 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. Then offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill or by other procedures approved by state and local authorities.]

#### CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

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

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather, presence of other materials or other influencing factors in the use of the product, which are beyond the control of LIBERTY CROP PROTECTION LLC or Seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and Buyer and User agree to hold LIBERTY CROP PROTECTION LLC and Seller harmless for any claims relating to such factors.

To the extent consistent with applicable law, LIBERTY CROP PROTECTION LLC warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of this product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or LIBERTY CROP PROTECTION LLC, and Buyer and User assume the risk of any such use. LIBERTY CROP PROTECTION LLC MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

To the extent consistent with applicable law, neither LIBERTY CROP PROTECTION LLC nor Seller shall be liable for any incidental, consequential or special damages resulting from the use or handling of this product. To the extent consistent with state law, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF LIBERTY CROP PROTECTION LLC AND 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 THE PRODUCT OR, AT THE ELECTION OF LIBERTY CROP PROTECTION, LLC OR SELLER, THE REPLACEMENT OF THE PRODUCT.

LIBERTY CROP PROTECTION LLC and Seller offer this product, and Buyer and User accept it, subject to the foregoing conditions of Sale and Limitation of Warranty and Liability which may not be modified except by written agreement signed by a duly authorized representative of LIBERTY CROP PROTECTION LLC.

All trademarks are the property of their respective owners.

## Sublabel B

[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 7C INSECTICIDE

# LIBERTY PYRIPROXYFEN 0.86 EC

INSECT GROWTH REGULATOR

ACTIVE INGREDIENT:	By Weight
Pyriproxyfen* (2-[1-methyl-2-(4-phenoxyphenoxy)ethoxy]pyridine):	
OTHER INGREDIENTS**:	
TOTAL:	100.00%
*Contains 0.86 pound ai per gallon.	

\*\*Contains aromatic petroleum distillates.

## KEEP OUT OF REACH OF CHILDREN CAUTION

See inside label booklet for First Aid, Precautionary Statements and Directions for Use.

EPA Reg. No.: 89168-108 EPA Est. No.:

Net Contents: \_\_\_\_ Gal

Manufactured For: LIBERTY CROP PROTECTION, LLC 1880 FALL RIVER DRIVE, SUITE 100 LOVELAND, CO 80538

[Contains pyriproxyfen, the active ingredients used in [Distance<sup>®</sup> IGR] [Knack<sup>®</sup>] [and] [Esteem<sup>®</sup> 0.86 EC].]

[ [LIBERTY PYRIPROXYFEN 0.86 EC] is not manufactured, or distributed by Valent U.S.A. Corporation, seller of [Distance<sup>®</sup> IGR] [Knack<sup>®</sup>] [and] [Esteem<sup>®</sup> 0.86 EC].]

# **ACCEPTED** 08/27/2020

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under

EPA Reg. No. 89168-108

082620

## {LANGUAGE INSIDE BOOKLET}

	FIRST AID				
If swallowed:	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.				
	<ul> <li>Do not give anything by mouth to an unconscious person.</li> </ul>				
lf on skin or	Take off contaminated clothing.				
clothing:	Rinse skin immediately with plenty of water for 15-20 minutes.				
	Call a poison control center or doctor for further 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 further treatment advice.				
If in eyes:	Hold eye open and rinse slowly and gently with water for 15-20 minutes.				
	Remove contact lenses, if present, after the first 5 minutes, then continue rinsing				
	eye.				
	Call a poison control center or doctor for treatment advice.				
	HOT LINE NUMBER				
	ct container or label with you when calling a poison control center or doctor, or going for				
treatment. For emergency medical assistance, call CHEMTREC® at 1-800-424-9300. For additional					
information on this pesticide product (including pesticide incidents), you may call CHEMTREC® at <b>1-800-</b>					
<b>424-9300</b> , 24 hours per day, 7 days per week.					
	NOTE TO PHYSICIAN				
Contains petrole	eum distillate. Vomiting may cause aspiration pneumonia.				

## PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Harmful if swallowed. Harmful if absorbed through skin, eyes or clothing. Avoid breathing vapor or spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE):

Applicators and other handlers must: Wear long-sleeved shirt and long pants, shoes plus socks and chemical resistant gloves made of barrier laminate or viton  $\geq$  14 mils

### Users should:

### USER SAFETY RECOMMENDATIONS

- Wash hands thoroughly with soap and water before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE 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.

#### PHYSICAL CHEMICAL HAZARDS

Do not mix or allow coming in contact with oxidizing agent. Hazardous Chemical reaction may occur.

## **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: Wear long-sleeved shirt and long pants, shoes plus socks and chemical resistant gloves made of barrier laminate or viton  $> \ge 14$  mils.

## NON-AGRICULTURAL USE REQUIREMENTS

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

Keep unprotected persons out of treated areas until sprays have dried.

#### 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.

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

#### **RESISTANCE MANAGEMENT RECOMMENDATIONS**

For resistance-management, LIBERTY PYRIPROXYFEN 0.86 EC contains a Group 7C insecticide. Any insect population may contain individuals naturally resistant to LIBERTY PYRIPROXYFEN 0.86 EC and other Group 7C 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 LIBERTY PYRIPROXYFEN 0.86 EC or other Group 7C 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 LIBERTY PYRIPROXYFEN 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.
  - o Mixtures with components having the same IRAC mode of action classification are not recommended for insect resistance management.
  - o When using mixtures, consider any known cross-resistance issues between the individual components for the targeted pest(s).
  - o Mixtures become less effective if resistance is already developing to one or both active ingredients, but they may still provide pest management benefits.
  - o 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 ft above the vegetative canopy, unless a greater application height is necessary for pilot safety.
- Applicators are required to use fine or coarser droplet size (ASABE S572.1), except for when applying ultra-low volume applications.
- Applicators must use 1/2 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.

#### Ground Boom 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 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.

#### **Boom-less Ground Applications:**

- Do not apply when wind speeds exceed 15 miles per hour at the application site.
- Do not apply during temperature inversions.

#### SPRAY DRIFT ADVISORIES

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

#### IMPORTANCE OF DROPLET SIZE

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

#### **Controlling Droplet Size – Ground Boom**

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

#### **Controlling Droplet Size – Aircraft**

• Adjust Nozzles - Follow nozzle 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

#### **Boom-less Ground Applications:**

• Setting nozzles at the lowest effective height will help to reduce the potential for spray drift.

#### Handheld Technology Applications:

• Take precautions to minimize spray drift.

#### **PRODUCT INFORMATION**

For control of insects including whiteflies, scales, shore flies and fungus gnats in indoor (greenhouse, lath and shadehouse and interiorscapes) and outdoor ornamentals, including flowering and foliage crops, ground covers, shrubs and ornamental trees, non-bearing fruit and nut trees, and indoor grown fruiting vegetables.

LIBERTY PYRIPROXYFEN 0.86 EC affects all pest insect life stages, including eggs, nymphs/larvae, pupae and adults. LIBERTY PYRIPROXYFEN 0.86 EC does not control adults, but greatly reduces their production of viable eggs due to its strong transovarial activity. In whiteflies, transovarial activity begins within one day after adults contact or ingest LIBERTY PYRIPROXYFEN 0.86 EC residues. LIBERTY PYRIPROXYFEN 0.86 EC is also ovicidal and inhibits metamorphosis of nymphs, larvae and pupae into adults. Since LIBERTY PYRIPROXYFEN 0.86 EC is an Insect Growth Regulator (IGR), activity depends on the insect's development. Therefore, evidence of activity may be slower than with typical contact insecticides, especially when large numbers of late instars are present at time of application.

LIBERTY PYRIPROXYFEN 0.86 EC also has strong translaminar activity on a variety of ornamental plants, including poinsettia, hibiscus, gerbera, daisy, and chrysanthemums. LIBERTY PYRIPROXYFEN 0.86 EC residues applied to the upper leaf surface will rapidly penetrate the leaf cuticle, and can subsequently be ingested by immature and adult insects feeding on the lower leaf surface (e.g., whiteflies). Therefore, even in cases where it is difficult to achieve thorough under leaf spray coverage, LIBERTY PYRIPROXYFEN 0.86 EC can still provide highly effective control.

LIBERTY PYRIPROXYFEN 0.86 EC is intended for use in Integrated Pest Management (IPM) or Insect Resistance Management (IRM) programs. LIBERTY PYRIPROXYFEN 0.86 EC will not control adult insects, 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.

#### PLANT USE IMPORTANT

The large number of existing ornamental varieties and cultivars coupled with the constant introduction of new varieties makes it impossible to field test LIBERTY PYRIPROXYFEN 0.86 EC in every locale where sold or in all of the combinations created by these differences. These differences include the soil or media type, pH moisture or fertility, environmental conditions such as temperature, lighting or degree-days and horticultural practice and the manner of use and application of this product.

To ensure that LIBERTY PYRIPROXYFEN 0.86 EC is compatible with the variety or cultivar under your specific conditions, test the product on a limited scale and observe for phytotoxicity for two weeks before making large scale applications. Phytotoxicity has been observed on the following plants: Salvia (Salvia spp.), Ghost Plant (Graptopetalum paraguayense), Boston Fern (Nephrolepis exaltata), Schefflera (Schefflera spp.), Gardenia (Gardenia spp.), and Coral Bells (Heuchera sanguinea). It is therefore recommended that LIBERTY PYRIPROXYFEN 0.86 EC not be used on these plants.

#### DO NOT APPLY TO POINSETTIA AFTER BRACT FORMATION.

#### **MIXING INSTRUCTIONS**

Prepare no more spray mixture than is necessary for the immediate operation. Thoroughly clean spray equipment before using this product. Agitate thoroughly before and during application. Flush spray tank thoroughly with clean water daily after use and dispose of pesticide rinsate by application to a previously treated area. Add ½ to 2/3 of the required amount of water to the spray or mix tank. With the agitator running, add the required amount of LIBERTY PYRIPROXYFEN 0.86 EC. Continue agitation while adding the remainder of the water. Begin application of the spray solution after LIBERTY PYRIPROXYFEN 0.86 EC has been added and completely dispersed into the mix water. Maintain agitation until all of the mixture has been applied.

	CONVERSION CHART								
				Gallons o	of Mixture*				
Rate/1	00 Gal	Rate/s	50 Gal	Rate/2	25 Gal	Rate/	10 Gal	Rate/	5 Gal
oz	ml	oz	ml	oz	ml	oz	ml	oz	ml
2	59	1	30	0.5	15	0.2	5.9	0.1	3.0
3	89	1.5	44	0.75	22	0.3	8.9	0.15	4.4
4	118	2	59	1.0	30	0.4	11.8	0.2	5.9
5	148	2.5	74	1.25	37	0.5	14.8	0.25	7.4
6	177	3	89	1.5	44	0.6	17.7	0.3	8.9
8	237	4	118	2.0	59	0.8	23.7	0.4	11.8
10	296	5	148	2.5	74	1.0	30.0	0.5	14.8
12	355	6	177	3.0	89	1.2	35.5	0.6	17.7

\*Determine the rate per 100 gallons from Table 1. Follow the proper rate across the row to determine how much to

add for mixtures less than 100 gal.

#### COMPATIBILITY

LIBERTY PYRIPROXYFEN 0.86 EC is compatible with most commonly used insecticides, fungicides and spray adjuvants used in the production of ornamental plants. When using LIBERTY PYRIPROXYFEN 0.86 EC in tank mixes with other pesticides, observe all directions for use and precautions on the respective tank mix label. When making an application of a tank mix for the first time, it is recommended that a few plants be treated and observed for phytotoxicity for two to four weeks before making large scale applications.

#### LOW VOLUME SYSTEMS

LIBERTY PYRIPROXYFEN 0.86 EC has been evaluated and shown to be effective for foliar applications when applied through Electrostatic Spraying Systems, PulsFOG<sup>®</sup> Systems or other low volume systems. To calculate the amount of product to be applied, use the appropriate amount of LIBERTY PYRIPROXYFEN 0.86 EC for the square footage to be treated with spray as listed. The amount of carrier (water) is dependent on the amount needed for adequate coverage. Do not use low volume systems to control soil-inhibiting insects such as fungus gnats and shore flies.

#### APPLICATION INSTRUCTIONS FOR USE IN IRRIGATION SYSTEMS

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

Important: First time users of LIBERTY PYRIPROXYFEN 0.86 EC through irrigation systems should make an application to a small area with only a few plants present to ensure that the irrigation system is delivering a uniform, even application across the application area.

**Chemigation:** Do not apply LIBERTY PYRIPROXYFEN 0.86 EC through any type of irrigation system when applying for control of foliar insects. LIBERTY PYRIPROXYFEN 0.86 EC may be applied through overhead irrigation at rates recommended in this label to provide proper coverage of all surfaces when treating for fungus, gnats and shore flies. Overhead irrigation systems include overhead sprinklers such as impact or micro-sprinklers, mist-type irrigation such as fog systems and hand-held calibrated irrigation equipment such as a hand-held wand with injector. Do not apply this product through any other type of irrigation system. Plant injury or lack of effectiveness, or illegal pesticide residues in a crop can result from non-uniform distribution of treated water. If you have questions about calibration, contact either State Extension Specialists, equipment manufacturers, or other experts. Do not connect an irrigation system (including greenhouse systems) used for pesticide applications to a public water system, unless the pesticide label prescribed safety devices for public water systems are in place. A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down to make necessary adjustments should the need arise.

#### **Operation Instructions**

- 1. The system must contain a functional check valve, vacuum relief valve, and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
- 2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check-valve to prevent the flow of fluid back toward the injection pump.
- 3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- 4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- 5. The irrigation line or water pump must include a functional pressure switch, which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump), effectively
  designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system
  interlock.
- 7. Do not apply when wind speed favors drift beyond the area intended for treatment. Avoid spray overlap, as injury may result.
- Prepare a minimum mixture of 1 gal of water with the desired rate of LIBERTY PYRIPROXYFEN 0.86 EC and inject this mixture into the system. Injecting a larger volume of a more dilute mixture will usually provide more accurate calibration of metering equipment. Maintain sufficient agitation to keep LIBERTY PYRIPROXYFEN 0.86 EC in suspension.
- 9. Meter into irrigation water during the beginning of the irrigation cycle. It is important to continue running the system after the LIBERTY PYRIPROXYFEN 0.86 EC application is finished to remove all the product from the foliage and get it into the areas where the immature insect stages are located.

#### Systems Connected to Public Water Systems

- 1. Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days of the year.
- 2. Chemigation systems connected to public water systems must contain a functional, reduced pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water systems should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
- 3. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- 4. The pesticide injection pipeline must also contain a functional, normally closed solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- 5. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where the pesticide distribution is adversely affected.
- Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump), effectively
  designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system
  interlock.

Table 1. Directions for Use on Shrubs, Ornamentals,	Flowering Plants, Foliage Plants,	Ground Covers, Ornamental
Trees, Non-Bearing Fruit, Nut Trees and Vines[*]		

PESTS	RATES	APPLICATION METHOD	APPLICATION INSTRUCTIONS
Aphids (suppression) Western Flower Thrips (suppression) Whiteflies including Ficus Whitefly[*] Giant Whitefly[*] Greenhouse Whitefly Rugose Spiraling Whitefly[*] Silverleaf Whitefly Sweetpotato Whitefly	6 to 8 fl oz/ 100 gal	Foliar Spray 100 gal of spray mix will treat 20,000 sq ft of area.	<ul> <li>Apply the spray mixture uniformly to all plant surfaces and to the point of runoff.</li> <li>Make first application when adult insects begin to appear. If necessary, make a second application from 14 to 28 days after the first application. If an additional application is needed less than 14 days after the first treatment, use an IGR (Insect Growth Regulator) with another mode of action of another chemical class of insecticide. Use lower rate and longer interval for newly established infestations and when plants are not rapidly flushing new growth. Use higher rates and shorter interval for established infestations and/or when plants are rapidly flushing new growth. If rapid control of adult insects is required, apply a labeled adulticide.</li> </ul>
USE RESTRICTIONS:	•		

• Apply no more than two times per cropping cycle or no more than two times per six months.

Mealybugs (suppression) Scale including Black Scale California Red Scale Euonymus Scale False Oleander Scale[*] Florida Wax Scale Pine Needle Scale[*] San Jose Scale Citrus Snow Scale Spotted Tentiform Leafminer	8 to 12 fl oz/ 100 gal	Foliar Spray 100 gal of spray mix will treat 20,000 sq ft of area	Apply the spray mixture uniformly to all plant surfaces and to the point of runoff. Target crawler stage when treating infestations of scale.
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[\*Not For Use in California]

Since ornamental varieties are numerous, constantly changing, and may react differently to LIBERTY PYRIPROXYFEN 0.86 EC and tank mixtures including LIBERTY PYRIPROXYFEN 0.86 EC, test the product(s) on a small scale before making large-scale applications. Phytotoxicity has been observed on the following plants: Salvia (*Salvia* spp.), Ghost Plant (*Graptopetalum paraguayense*), Boston Fern (*Nephrolepis exaltata*), Schefflera (*Schefflera* spp.), Gardenia (*Gardenia* spp.), and Coral Bells (*Heuchera sanguinea*). It is therefore recommended that LIBERTY PYRIPROXYFEN 0.86 EC not be used on these plants.

#### USE RESTRICTION: DO NOT APPLY TO POINSETTIA AFTER BRACT FORMATION.

# Table 2. Directions for Use on Shrubs, Ornamentals, Flowering Plants, Foliage Plants, Ground Covers, OrnamentalTrees, Non Bearing Fruit, Nut Trees and Vines

PESTS	RATES	APPLICATION METHOD	APPLICATION INSTRUCTIONS
Fungus Gnats Shore Flies	3 to 6 fl oz /100 gal	<u>Sprench</u> 100 gal of spray mix will treat 5,000 sq ft of area	For the control of fungus gnats and shore flies, apply to potting media as a heavy coarse spray (sprench) through conventional equipment to all insect infested surfaces or where insects may breed. Complete coverage of infested areas is essential for control. For control, treat breeding areas under benches at the same time that the crop is treated. Apply when the soil is moist.
			Broadcast Application to Soil Surface For bed, bench, and container grown plants, apply LIBERTY
			PYRIPROXYFEN 0.86 EC as a coarse spray or sprench to the soil

2 fl oz/ 100 gal	Drench Saturate only the top 1" to 1.5" of soil	surface. Mix 3 to 6 fl oz of LIBERTY F gal of water and apply to the soil surface spray solution per 100 sq ft of area. If a PYRIPROXYFEN 0.86 EC is needed between applications. Important: For drench applications to I below. For the control of fungus gnats and sho as a drench application through conven apply additional amounts of spray soluti benches at the same time that the crop is moist.	e at a volume of a second applica , allow a minir Poinsettia, see u re flies, apply to tional equipmention to breeding a	2 to 3 gal of final ation of LIBERTY num of 21 days use instructions potting media it. For control, areas under		
		Drench Application to Soil Surface of Mix 2 fl oz of LIBERTY PYRIPROXYFE and evenly apply to surface of potting m treatment. Apply 3 fl oz of finished solu volume accordingly for smaller or larger below). Do not saturate potting medi- the top 1" to 1.5" of soil needs to be dre effective control. Do not drench plants cycle.	N 0.86 EC in 10 nedia to ensure tion per 6-inch p pots (see drend a with drench s nched in order t	00 gal of water uniform oot. Adjust ch mixing chart <b>solution</b> , only to achieve		
		Pot Diameter (inches)	Drench Volume	Rate/100 Gal		
			(fl oz/pot)	(fl oz)		
		4	1	2		
		5	2	2		
		6	3	2		
		8 5 2				
		10	7	2		
		12	10	2		

# Table 2. Directions for Use on Shrubs, Ornamentals, Flowering Plants, Foliage Plants, Ground Covers, Ornamental Trees, Non-Bearing Fruit, Nut Trees and Vines (continued)

Since ornamental varieties are numerous, constantly changing, and may react differently to LIBERTY PYRIPROXYFEN 0.86 EC and tank mixtures including LIBERTY PYRIPROXYFEN 0.86 EC, test the product(s) on a small scale before making large-scale applications. Phytotoxicity has been observed on the following plants: Salvia (*Salvia* spp.), Ghost Plant (*Graptopetalum paraguayense*), Boston Fern (*Nephrolepis exaltata*), Schefflera (*Schefflera* spp.), Gardenia (*Gardenia* spp.), and Coral Bells (*Heuchera sanguinea*). It is therefore recommended that LIBERTY PYRIPROXYFEN 0.86 EC not be used on these plants.

**Drench Application to Individual Pots of Poinsettia:** In a few instances, malformation of roots and newly expanded leaves (i.e., cupping) has been observed on certain Poinsettia varieties (i.e., Freedom Bright, Freedom Bright Red, Winter Rose and Jingle Bells) following drench application of LIBERTY PYRIPROXYFEN 0.86 EC. Leaf malformation was more commonly observed on plants exposed to high air temperatures and on plants whose soil media was allowed to dry out following application, such as those along walkways or near doorways. Malformation of affected leaves was permanent, but new growth was unaffected after plants were hydrated. Malformed leaves were generally not evident at time of shipment.

#### **USE RESTRICTIONS:**

To minimize the risk of leaf malformation when drenching Poinsettia with LIBERTY PYRIPROXYFEN 0.86 EC:

- Do not saturate the potting media with LIBERTY PYRIPROXYFEN 0.86 EC drench solution. Apply only enough solution to saturate the top 1" 1.5" of media (ex., No more than 3 oz solution per 6" pot). Do not mix more than 2 oz of LIBERTY PYRIPROXYFEN 0.86 EC per 100 gal of water.
- Ensure that soil media remains uniformly moist and avoid exposing plant to high temperatures during and following drench application of LIBERTY PYRIPROXYFEN 0.86 EC. If leaf malformation is noted, thoroughly water affected plants and, if necessary, move these plants to an area of the greenhouse with higher humidity.

• Do not drench individual Poinsettia with LIBERTY PYRIPROXYFEN 0.86 EC more than one time per crop cycle.

• DO NOT APPLY TO POINSETTIA AFTER BRACT FORMATION.

Table 3.	Directions	for Use on	Indoor Grown	Fruiting	Vegetables
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PESTS	RATES	APPLICATION METHOD	APPLICA	TION INSTRUC	TIONS
Aphids (suppression) Western Flower Thrips (suppression) Whiteflies including Greenhouse Whitefly Silverleaf Whitefly Sweetpotato Whitefly	6 fl oz/ 100 gal	Foliar Spray 100 gal of spray mix will treat 20,000 sq ft of area.	Apply the spray mixture uniformly to all plant surfaces and to the point of runoff. Make first application when adult insects begin to appear. If necessary, make a second application from 14 to 28 days after the first application. If an additional application is needed less than 14 days after the first treatment, use an IGR (Insect Growth Regulator) with another mode of action of another chemical class of insecticide. Use lower rate and longer interval for newly established infestations and when plants are not rapidly flushing new growth. Use higher rates and shorter interval for established infestations and/or when plants are rapidly flushing new growth. Apply no more than two times per cropping cycle or no more than two times per six months. If rapid control of adult insects is required, apply a labeled adulticide.		
Fungus Gnats Shore Flies	3 to 6 fl oz /100 gal	<b>Sprench</b> 100 gal of spray mix will treat 5,000 sq ft of area.	For the control of fungus gnats and shore flies apply to potting media as a heavy coarse spray (sprench) through conventional equipment to all insect infested surfaces of where insects may breed. Complete coverage of infested areas is essential for control. For control, treat breeding areas under benches at the same time that the crop is treated. The soil surface should be moist at the time of application. <b>Broadcast Application to Soil Surface</b> For bed, bench, and container grown plants, apply LIBERTY PYRIPROXYFEN 0.86 EC as a coarse spray of sprench to the soil surface. Mix 3 to 6 fl oz of LIBERTY PYRIPROXYFEN 0.86 EC in 100 gal of water and apply to the soil surface at a volume of 2 to 3 gal of final spray solution per 100 sq ft of area. If a second application of LIBERTY PYRIPROXYFEN 0.86 EC is needed, allow a minimum of 21 days between applications. Apply no more		
Fungus Gnats Shore Flies	2 fl oz/ 100 gal	Drench Saturate only the top 1" to 1.5" of soil.	than two times per cropping cycle or no more than two times per six months.         For the control of fungus gnats and shore flies, apply to potting media as a drench application through conventional equipment. For control, apply additional amounts of spray solution to breeding areas under benches at the same time that the crop is treated. The soil surface should be moist at the time of application.         Drench Application to Soil Surface of Individual Containers         Mix 2 fl oz of LIBERTY PYRIPROXYFEN 0.86 EC in 100 gal of water and evenly apply to surface of potting media to ensure uniform treatment. Apply 3 fl oz of finished solution per 6-inch pot. Adjust volume accordingly for smaller or larger pots (see drench mixing chart below).         Do not saturate potting media with drench solution, only the top 1' to 1.5" of soil needs to be drenched in order to achieve effective control. Do not drench plants more than one time per crop cycle.		
			Diameter (inches)	Drench Volume (fl oz/pot) 1	Rate/100 Gal (fl oz) 2
			5	2	2
			6	3	2
			8	5	2

10	7	2
12	10	2

Since fruiting vegetable varieties are numerous, constantly changing and may react differently to LIBERTY PYRIPROXYFEN 0.86 EC and tank mixtures including LIBERTY PYRIPROXYFEN 0.86 EC, test the product(s) on a small scale before making large-scale applications.

#### **USE RESTRICTIONS:**

• Do not apply to tomato varieties less than 1 inch in diameter.

- Do not apply to non-bell peppers.
- Do not apply within one (1) day of harvest.
- Do not make more than two (2) LIBERTY PYRIPROXYFEN 0.86 EC applications per season.
- Do not exceed 13 fl. oz of LIBERTY PYRIPROXYFEN 0.86 EC per acre per application.
- Regardless of formulation, do not apply more than 0.176 lb ai of pyriproxyfen per acre per season.

Table 4. Directions for Use on Indoor Grown Herbs (Crop Group 19A)[\*]

PESTS	RATES	APPLICATION METHOD	APPLICATION INSTRUCTIONS
Aphids (suppression) [*] Western Flower Thrips (suppression) [*] Whiteflies including Greenhouse Whitefly[*] Silverleaf Whitefly[*] Sweetpotato Whitefly[*]	6 fl oz/ 100 gal	Foliar Spray 100 gal of spray mix will treat 20,000 sq ft of area	Apply the spray mixture uniformly to all plant surfaces and to the point of runoff. Make first application when adult insects begin to appear. If necessary, make a second application from 14 to 28 days after the first application. If an additional application is needed less than 14 days after the first treatment, use an IGR (Insect Growth Regulator) with another mode of action of another chemical class of insecticide. Use lower rate and longer interval for newly established infestations and when plants are not rapidly flushing new growth. Use higher rates and shorter interval for established infestations and/or when plants are rapidly flushing new growth. Apply no more than two times per cropping cycle or no more than two times per six months. If rapid control of adult insects is required, apply a labeled adulticide.
Fungus Gnats[*] Shore Flies[*]	3 to 6 fl oz/ 100 gal	<u>Sprench</u> 100 gal of spray mix will treat 5,000 sq ft of area	For the control of fungus gnats and shore flies, apply to potting media as a heavy coarse spray (sprench) through conventional equipment to all insect infested surfaces or where insects may breed. Complete coverage of infested areas is essential for control. For control, treat breeding areas under benches at the same time that the crop is treated. Apply when the soil is moist. <b>Broadcast Application to Soil Surface</b> For bed, bench, and container grown plants, apply LIBERTY PYRIPROXYFEN 0.86 EC as a coarse spray or sprench to the soil surface. Mix 3 to 6 fl oz of LIBERTY PYRIPROXYFEN 0.86 EC in 100 gal of water and apply to the soil surface at a volume of 2 to 3 gal of final spray solution per 100 sq ft of area. If a second application of LIBERTY PYRIPROXYFEN 0.86 EC is needed, allow a minimum of 21 days between applications. Apply no more than two times per cropping cycle or no more than two times per six months.
	2 fl oz/ 100 gal	Drench Saturate only the top 1" to 1.5" of soil	For the control of fungus gnats and shore flies, apply to potting media as a drench application through conventional equipment. For control, apply additional amounts of spray solution to breeding areas under benches at the same time that the crop is treated. Apply when the soil is moist. Drench Application to Soil Surface of Individual Containers Mix 2 fl oz of LIBERTY PYRIPROXYFEN 0.86 EC in 100 gal of water and evenly apply to surface of potting media to ensure uniform treatment. Apply 3 fl oz of finished solution

per 6-inch pot. Adjust volume accordingly for smaller or larger pots (see drench mixing chart below). <b>Do not</b> <b>saturate potting media with drench solution</b> , only the top 1" to 1.5" of soil needs to be drenched in order to achieve effective control. Do not drench plants more than one time per crop cycle.			
Pot	Drench	Rate/100	
Diameter (inches)	Volume	Gal	
	(fl oz/pot)	(fl oz)	
4	1	2	
5	2	2	
6	3	2	
8	5	2	
10	7	2	
12	10	2	

Since herb varieties are numerous, constantly changing and may react differently to LIBERTY PYRIPROXYFEN 0.86 EC and tank mixtures including LIBERTY PYRIPROXYFEN 0.86 EC, test the product(s) on a small scale before making large-scale applications.

#### **USE RESTRICTIONS:**

- Do not apply within one (1) day of harvest.
- Do not make more than two (2) LIBERTY PYRIPROXYFEN 0.86 EC applications per season.
- Do not exceed 13 fl oz LIBERTY PYRIPROXYFEN 0.86 EC per acre per application.
- Regardless of formulation, do not apply more than 0.176 lb ai of pyriproxyfen per acre per season.

[\*Not For Use in California]

### STORAGE AND DISPOSAL

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

#### 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.

#### PESTICIDE DISPOSAL:

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

#### **CONTAINER HANDLING:**

[Use the following statement for non-refillable containers ≤ 5 gallons]

[Nonrefillable container. Do not reuse or refill this container. Clean container 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 reconditioning if appropriate or puncture and dispose of in a sanitary landfill or by other procedures approved by state and local authorities.]

[Use the following statement for non-refillable containers > 5 gallons]

[Nonrefillable container. Do not reuse or refill this container. Triple rinse container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace 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. Turn the container over onto its other 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. Turn the container over onto its other 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. Then offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill or by other procedures approved by state and local authorities.]

### CONDITION OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

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

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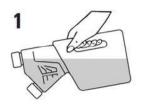
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## LIBERTY PYRIPROXYFEN 0.86 EC EPA Reg. No. 89168-108

## Graphic Diagrams for use with Tip and Pour Packaging









Measure

Check

Adjust

Pour