



## OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

WASHINGTON, D.C. 20460

August 9, 2024

Kyleigh Toomey  
Regulatory Specialist  
Atticus, LLC  
940 NW Cary Parkway, Suite 200  
Cary, NC 27513

Subject: Notification per PRN 98-10 – Revise MoA Box and Update Company Address  
Product Name: A118.01  
EPA Registration Number: 91234-58  
Application Date: August 17, 2023  
Case Number: 606491

Dear Kyleigh Toomey:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 for the above referenced product. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action requested falls within the scope of PRN 98-10.

The label submitted with the application has been stamped “NOTIFICATION” and placed in our records.

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

If you have any questions, please contact Briana Hanlon at (202) 566-2716 or at [hanlon.briana@epa.gov](mailto:hanlon.briana@epa.gov).

Sincerely,

Tamica Cain, Product Manager 10  
Invertebrate & Vertebrate Branch 2  
Registration Division (7505T)

# 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
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### A118.01

INSECT GROWTH REGULATOR

[Alternate Brand Names: Defiance 0.86 EC, Cusack 0.86 EC, Reemit 0.86 EC, Cusack Citrus]

ACTIVE INGREDIENT:	By Weight
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*Pyriproxyfen: .....	11.23%
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OTHER INGREDIENTS: .....	88.77%
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TOTAL: .....	100.00%
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\*(2-[1-methyl-2-(4-phenoxyphenoxy)ethoxy]pyridine)

Contains 0.86 pound ai per gallon.

Contains aromatic petroleum distillates.

**KEEP OUT OF REACH OF CHILDREN**

## CAUTION

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

EPA Reg. No.: 91234-58

EPA Est. No.:

Net Contents:

### NOTIFICATION

91234-58

The applicant has certified that no changes, other than those reported to the Agency have been made to the labeling. The Agency acknowledges this notification by letter dated:

08/09/2024

Manufactured For:

Atticus, LLC

940 NW Cary Parkway, Suite 200

Cary, NC 27513

Contains pyriproxyfen, the active ingredients used in [Distance® IGR] [Knack®] [and] [Esteem® 0.86 EC].
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[A118.01] is not manufactured, or distributed by Valent U.S.A. Corporation, seller of [Distance® IGR] [Knack®] [and] [Esteem® 0.86 EC].
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## {LANGUAGE INSIDE BOOKLET}

FIRST AID	
<b>If on skin:</b>	<ul style="list-style-type: none"><li>• Take off contaminated clothing.</li><li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li><li>• Call a poison control center or doctor for further treatment advice.</li></ul>
<b>If in eyes:</b>	<ul style="list-style-type: none"><li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li><li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>If swallowed:</b>	<ul style="list-style-type: none"><li>• Immediately call a poison control center or doctor.</li><li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li><li>• Do not give any liquid to the person.</li><li>• Do not give anything by mouth to an unconscious person.</li></ul>
<b>If inhaled:</b>	<ul style="list-style-type: none"><li>• Move person to fresh air.</li><li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li><li>• Call a poison control center or doctor for further treatment advice.</li></ul>
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For emergency medical assistance, call SafetyCall: <b>1-844-685-9173</b> . For additional information on this pesticide product (including pesticide incidents), you may call CHEMTREC® at <b>1-800-424-9300</b> , 24 hours per day, 7 days per week.	
NOTE TO PHYSICIAN	
If ingested, probable mucosal damage may contraindicate the use of gastric lavage. This product contains a light hydrocarbon liquid; ingestion or subsequent vomiting can result in aspiration of this product, which can cause pneumonitis.	

## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

#### CAUTION

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

#### PERSONAL PROTECTIVE EQUIPMENT (PPE):

##### Applicators and other handlers must wear:

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

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

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

### **USER SAFETY RECOMMENDATIONS**

#### **Users should:**

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

### **ENVIRONMENTAL HAZARDS**

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

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

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

### **DIRECTIONS FOR USE**

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

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

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

### **AGRICULTURAL USE REQUIREMENTS**

Use this product only in accordance with its labeling and with the Worker Protection Standard (WPS), 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about Personal Protective Equipment (PPE), and Restricted-Entry Interval (REI). The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard (WPS).

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

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

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

## TANK MIXES

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

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, **A118.01** contains a Group 7 insecticide. Any insect population may contain individuals naturally resistant to **A118.01** and other Group 7 insecticides. The resistant individuals may dominate the insect population if this group of insecticides are used repeatedly in the same fields. Appropriate resistance management strategies should be followed.

To delay insecticide resistance, take the following steps:

- Rotate the use of **A118.01** or other Group 7 insecticides within a growing season, or among growing seasons, with different groups that control the same pests. Avoid application of more than the maximum seasonal use rate or the total number of consecutive sprays of **A118.01** 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):
  - Individual insecticides selected for use in mixtures should be highly effective and be applied at the rates at which they are individually registered for use against the target species.
  - Mixtures with components having the same IRAC mode of action classification are not recommended for insect resistance management.
  - When using mixtures, consider any known cross-resistance issues between the individual components for the targeted pest(s).
  - Mixtures become less effective if resistance is already developing to one or both active ingredients, but they may still provide pest management benefits.
  - The insect resistance management benefits of an insecticide mixture are greatest if the two components have similar periods of residual insecticidal activity. Mixtures of insecticides with unequal periods of residual insecticide activity may offer an insect resistance management benefit only for the period where both insecticides are active.
- Adopt an integrated pest management program for insecticide use that includes scouting, uses historical information related to pesticide use, crop rotation, record keeping, and which considers cultural, biological and other chemical control practices.
- Monitor after application for unexpected target pest survival. If the level of survival suggests the presence of resistance, consult with your local university specialist or certified pest control advisor.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance management and/or IPM recommendations for the specific site and pest problems in your area.

### SPRAY DRIFT

#### Aerial Applications

- Do not release spray at a height greater than 10 feet above the vegetative canopy, unless a greater application height is necessary for pilot safety.

- Applicators are required to use a fine or coarser droplet size (ASABE S572.1), except for when applying ultra-low volume applications.
- Applicators must use ½ swath displacement upwind at the downwind edge of the field.
- Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- Do not apply when wind speeds exceed 15 miles per hour at the application site.
- If the windspeed is greater than 10 mph, the boom length must be 65% or less of the wingspan for fixed wing aircraft and 75% or less of the rotor diameter for helicopters. Otherwise, the boom length must be 75% or less of the wingspan for fixed-wing aircraft and 90% or less of the rotor diameter for helicopters.
- Do not apply during temperature inversions.

#### **Airblast Applications**

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

#### **Groundboom Applications**

- User must only apply with the nozzle height recommended by the manufacturer, but no more than 4 feet above the ground or crop canopy.
- Applicators are required to use a fine or coarser droplet size (ASABE S572.1).
- Do not apply when wind speeds exceed 15 miles per hour at the application site.
- Do not apply during temperature inversions.

## **SPRAY DRIFT ADVISORIES**

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

### **IMPORTANCE OF DROPLET SIZE**

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

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

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

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

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

#### **BOOM HEIGHT – Ground Boom**

For ground equipment, the boom should remain level with the crop and have minimal bounce.

#### RELEASE HEIGHT – Aircraft

Higher release heights increase the potential for spray drift.

#### SHIELDED SPRAYERS

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

#### TEMPERATURE AND HUMIDITY

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

#### TEMPERATURE INVERSIONS

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

#### WIND

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

### PRODUCT INFORMATION

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

**A118.01 is intended for use in Integrated Pest Management (IPM) or Insect Resistance Management (IRM) programs. A118.01 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.**

**A118.01** acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. **A118.01** has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since **A118.01** 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)

**A118.01** acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. **A118.01** has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since **A118.01** is an Insect Growth Regulator (IGR) and activity depends on the insect's development, evidence of activity will be slower than typical contact insecticides.

**A118.01** does exhibit translaminar movement which means that **A118.01** applied to the upper surfaces of the leaves will move to the lower surface of the leaf. This translaminar movement is very important to chemical control of whitefly since one of the major obstacles is getting the product to the underside of the leaves where whitefly are present.

PESTS	PRODUCT RATES PER ACRE	INSTRUCTIONS
Artichoke Plum Moth Banded Wing Whitefly Greenhouse Whitefly Silverleaf Whitefly	8 to 10 fl ozs	Apply with ground equipment in adequate water for uniform coverage (10 to 50 gals/A).

PESTS	PRODUCT RATES PER ACRE	INSTRUCTIONS
Sweetpotato Whitefly		<p><b>HIGHER WATER VOLUMES MAY PROVIDE IMPROVED INSECT CONTROL.</b></p> <p>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).</p> <p>Under severe pressure, use the higher labeled rates.</p> <p>Only whole fields should be treated but is not required.</p>
<p><b>A118.01</b> may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management (IPM) and Insect Resistance Management (IRM) programs.</p> <p><b>Restrictions:</b></p> <ul style="list-style-type: none"> <li>• Do not apply within 7 days of harvest.</li> <li>• Do not make more than 2 <b>A118.01</b> applications per growing season.</li> <li>• Do not exceed 20 fl ozs of <b>A118.01</b> per acre per calendar year.</li> <li>• Do not apply earlier than 14 days after last <b>A118.01</b> treatment.</li> <li>• Regardless of formulation, do not apply more than 0.134 lb pyriproxyfen per acre per calendar year.</li> <li>• Do not plant any crop other than those with registered pyriproxyfen uses in treated areas sooner than 30 days after the last application.</li> </ul>		

**MANAGING INSECT RESISTANCE:** Repeated use of the same class of insecticides or insecticides with similar modes of action can lead to the buildup of resistant whitefly strains. To optimize resistance management practices, Atticus, LLC is restricting **A118.01** to no more than two applications per growing season. **A118.01** may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Atticus, LLC also does not recommend using rates below 8 fl ozs per acre for whitefly control because reduced rates can lead to a greater potential for resistance development. Follow local, state and federal IPM and IRM recommendations. Read and follow all product labels before applying any insecticide.

### ASPARAGUS[\*]

**A118.01** acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. **A118.01** has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since **A118.01** is an Insect Growth Regulator (IGR) and activity depends on the insect's development, evidence of activity will be slower than typical contact insecticides.

**A118.01** does exhibit translaminar movement which means that **A118.01** applied to the upper surfaces of the leaves will move to the lower surface of the leaf. This translaminar movement is very important to chemical control of whitefly since one of the major obstacles is getting the product to the underside of the leaves where whitefly are present.

PESTS	PRODUCT RATES PER ACRE	INSTRUCTIONS
Whitefly	8 to 10 fl ozs	Apply with ground equipment in adequate water for uniform coverage (10 to 50 gals/A).



PESTS	PRODUCT RATES PER ACRE	INSTRUCTIONS
		<p><b>HIGHER WATER VOLUMES MAY PROVIDE IMPROVED INSECT CONTROL.</b></p> <p>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).</p> <p>Under severe pressure, use the higher labeled rates.</p> <p>Only whole fields should be treated but is not required.</p>
<p><b>Restrictions:</b></p> <ul style="list-style-type: none"> <li>• Do not apply within 7 days of harvest.</li> <li>• Do not make more than 2 <b>A118.01</b> applications per growing season.</li> <li>• Do not exceed 20 fl ozs of <b>A118.01</b> per acre per calendar year.</li> <li>• Do not apply earlier than 14 days after last <b>A118.01</b> treatment.</li> <li>• Regardless of formulation, do not apply more than 0.134 lb pyriproxyfen per acre per calendar year.</li> <li>• Do not plant any crop other than those with registered pyriproxyfen uses in treated areas sooner than 30 days after the last application.</li> </ul> <p>[*Not For Use in California]</p>		

**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, Atticus, LLC is restricting **A118.01** to no more than two applications per growing season. **A118.01** may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Atticus, LLC also does not recommend using rates below 8 fl ozs per acre for whitefly control because reduced rates can lead to a greater potential for resistance development. Follow local, state and federal Integrated Pest Management (IPM) and Insect Resistance Management (IRM) recommendations. Read and follow all product labels before applying any insecticide.

### BANANA AND PLANTAIN

**A118.01** acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. **A118.01** has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since **A118.01** is an Insect Growth Regulator (IGR) and activity depends on the insect's development, evidence of activity will be slower than typical contact insecticides.

**A118.01** does exhibit translaminar movement which means that **A118.01** applied to the upper surfaces of the leaves will move to the lower surface of the leaf. This translaminar movement is very important to chemical control of whitefly since one of the major obstacles is getting the product to the underside of the leaves where whitefly are present.

PESTS	PRODUCT RATES PER ACRE	INSTRUCTIONS
Banded Wing Whitefly Greenhouse Whitefly Silverleaf Whitefly Sweetpotato Whitefly	13 to 16 fl ozs	<p>Apply with air or ground equipment in adequate water for uniform coverage:</p> <p>By air: 3 to 10 gals/A By ground: 10 to 50 gals/A</p>

PESTS	PRODUCT RATES PER ACRE	INSTRUCTIONS
		<p><b>HIGHER WATER VOLUMES MAY PROVIDE IMPROVED INSECT CONTROL.</b></p> <p>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).</p> <p>Only whole fields should be treated but is not required.</p>
<p><b>Restrictions:</b></p> <ul style="list-style-type: none"> <li>Do not apply within 14 days of harvest.</li> <li>Do not make more than 3 <b>A118.01</b> applications per growing season.</li> <li>Do not exceed 48 fl ozs of <b>A118.01</b> per acre per calendar year.</li> <li>Regardless of formulation, do not apply more than 0.323 lb pyriproxyfen per acre per calendar year.</li> <li>Do not apply earlier than 14 days after last <b>A118.01</b> treatment</li> <li>Do not plant any crop other than those with registered pyriproxyfen uses in treated areas sooner than 30 days after the last application.</li> </ul>		

**MANAGING 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, Atticus, LLC is restricting **A118.01** to no more than three applications per growing season. **A118.01** may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Atticus, LLC also does not recommend using rates below 13 fl ozs per acre for whitefly control because reduced rates can lead to a greater potential for resistance development. Follow local, state and federal Integrated Pest Management (IPM) and Insect Resistance Management (IRM) recommendations. Read and follow all product labels before applying any insecticide.

## BERRY\*

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

**A118.01** acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. **A118.01** has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since **A118.01** is an Insect Growth Regulator (IGR) and activity depends on the insect's development, evidence of activity will be slower than typical contact insecticides. \*Not for use in California.

CROPS	PESTS	PRODUCT RATE PER ACRE	INSTRUCTIONS
Bearberry Bilberry Blueberry, Lowbush Cloudberry Cranberry Lingonberry Muntries Partridgeberry Cultivars, varieties, and/or hybrids of these	Cherry Fruitworm Cranberry Fruitworm Lecanium Scale	16 fl ozs	<p>Apply with ground or air equipment as a full coverage spray (minimum of 5 gals/A by air or 50 gals/A by ground). Thorough coverage is critical for adequate control. It is essential to use adequate water volume to ensure thorough coverage.</p> <p><b>Fruitworms:</b> Apply when egg laying begins and again at petal fall.</p>

CROPS	PESTS	PRODUCT RATE PER ACRE	INSTRUCTIONS
			<p>Additional applications of another insecticide, at 10 to 14-day intervals, may be needed under high population pressure or sustained moth flight.</p> <p><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.</p>
<p><b>A118.01</b> may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management (IPM) and Insect Resistance Management (IRM) programs.</p> <p><b>Restrictions:</b></p> <ul style="list-style-type: none"> <li>• Do not apply within 7 days of harvest.</li> <li>• Do not make more than 2 <b>A118.01</b> applications per growing season.</li> <li>• Do not exceed 32 fl ozs of <b>A118.01</b> per acre per calendar year.</li> <li>• Do not apply earlier than 14 days after last <b>A118.01</b> treatment.</li> <li>• Regardless of formulation, do not apply more than 0.215 lb pyriproxyfen per acre per calendar year.</li> </ul>			

**MANAGING INSECT RESISTANCE:** Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant insect strains. To optimize resistance management practices, Atticus, LLC is restricting **A118.01** to no more than two applications per growing season. **A118.01** 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)

**A118.01** acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. **A118.01** has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since **A118.01** is an Insect Growth Regulator (IGR) and activity depends on the insect's development, evidence of activity will be slower than typical contact insecticides.

**A118.01** does exhibit translaminar movement which means that **A118.01** applied to the upper surfaces of the leaves will move to the lower surface of the leaf. This translaminar movement is very important to chemical control of whitefly since one of the major obstacles is getting the product to the underside of the leaves where whitefly are present.

CROPS	PESTS	PRODUCT RATE PER ACRE	INSTRUCTIONS
Broccoli Broccoli Raab (rapini) Brussels Sprouts Cabbage Cauliflower Cavalo Broccoli (gai lon) Chinese Cabbage (bok choy and napa) Chinese Mustard (gai choy) Collards Kale Kohlrabi Mizuna Mustard Greens Mustard Spinach Rape Greens Turnip Greens	Banded Wing Whitefly Greenhouse Whitefly Silverleaf Whitefly Sweetpotato Whitefly	8 to 10 fl ozs	Apply with ground equipment in adequate water for uniform coverage (10 to 50 gals/A).  <b>HIGHER WATER VOLUMES MAY PROVIDE IMPROVED INSECT CONTROL.</b>  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 rates.  Only whole fields should be treated but is not required.
<b>Restrictions:</b> <ul style="list-style-type: none"> <li>Do not apply within 7 days of harvest.</li> <li>Do not make more than 2 <b>A118.01</b> applications per growing season.</li> <li>Do not exceed 20 fl ozs of <b>A118.01</b> per acre per calendar year.</li> <li>Do not apply earlier than 14 days after last <b>A118.01</b> treatment.</li> <li>Regardless of formulation, do not apply more than 0.134 lb pyriproxyfen per acre per calendar year.</li> <li>Do not plant any crop other than those with registered pyriproxyfen uses in treated areas sooner than 30 days after the last application.</li> </ul>			

**MANAGING WHITEFLY RESISTANCE:** Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant whitefly strains. To optimize resistance management practices, Atticus, LLC is restricting **A118.01** to no more than two applications per growing season. **A118.01** may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Atticus, LLC also does not recommend using rates below 8 fl ozs/A for whitefly control because reduced rates can lead to a greater potential for resistance development. Follow local, state and federal Integrated Pest Management (IPM) and Insect Resistance Management (IRM) recommendations. Read and follow all product labels before applying any insecticide.

## BULB VEGETABLES

(Crop Group 3-07)

**A118.01** acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. **A118.01** has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since **A118.01** 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	INSTRUCTIONS
Garlic Garlic, Great Headed Leek Onion, Dry Bulb Onion, Green Onion, Welsh Shallot	Onion Thrips Western Flower Thrips	8 fl ozs	<b>FOR SUPPRESSION OF THRIPS:</b> Apply with ground equipment in adequate water for uniform coverage (20 to 50 gals/A). Begin applications when thrips reach threshold levels per University/Extension. Thorough coverage is critical for adequate water volume to ensure thorough coverage.
<p><b>A118.01</b> may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management (IPM) and Insect Resistance Management (IRM) programs.</p> <p><b>Restrictions:</b></p> <ul style="list-style-type: none"> <li>Do not apply within 3 days of harvest.</li> <li>Do not make more than 2 <b>A118.01</b> applications per growing season.</li> <li>Do not exceed 16 fl ozs of <b>A118.01</b> per acre per calendar year.</li> <li>Do not apply earlier than 14 days after last <b>A118.01</b> treatment.</li> <li>Regardless of formulation, do not apply more than 0.108 lb pyriproxyfen per acre per calendar year.</li> <li>Do not plant any crop other than those with registered pyriproxyfen uses in treated areas sooner than 30 days after the last application.</li> </ul>			

**MANAGING INSECT RESISTANCE:** Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant insect strains. To optimize resistance management practices, Atticus, LLC is restricting **A118.01** to no more than two applications per growing season. **A118.01** 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)

**A118.01** acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. **A118.01** has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since **A118.01** is an Insect Growth Regulator (IGR) and activity depends on the insect's development, evidence of activity will be slower than typical contact insecticides. \*Not for use in California.

CROPS	PESTS	PRODUCT RATE PER ACRE	INSTRUCTIONS
Aronia Berry Blueberry, Highbush Blueberry, Lowbush Buffalo Currant Chilean Guava Cranberry, Highbush Currant, Black Currant, Red Elderberry European Barberry Gooseberry Honeysuckle, Edible Huckleberry Jostaberry Juneberry (Saskatoon Berry) Lingonberry Native Currant Salal Sea Buckthorn Cultivars, varieties, and/or hybrids of these	Cherry Fruitworm Cranberry Fruitworm Lecanium Scale	16 fl ozs	<p>Apply with ground or air equipment as a full coverage spray (minimum of 5 gals/A by air or 50 gals/A by ground). Thorough coverage is critical for adequate control. It is essential to use adequate water volume to ensure thorough coverage.</p> <p><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.</p> <p><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.</p>
<p><b>A118.01</b> may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management (IPM) and Insect Resistance Management (IRM) programs.</p> <p><b>Restrictions:</b></p> <ul style="list-style-type: none"> <li>Do not apply within 7 days of harvest.</li> <li>Do not make more than 2 <b>A118.01</b> applications per growing season.</li> <li>Do not exceed 32 fl ozs of <b>A118.01</b> per acre per calendar year.</li> <li>Do not apply earlier than 14 days after last <b>A118.01</b> treatment.</li> <li>Regardless of formulation, do not apply more than 0.215 lb pyriproxyfen per acre per calendar year.</li> </ul>			

**MANAGING INSECT RESISTANCE:** Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant insect strains. To optimize resistance management practices, Atticus, LLC is restricting **A118.01** to no more than two applications per growing season. **A118.01** 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)

**A118.01** acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. **A118.01** has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since **A118.01** is an Insect Growth Regulator (IGR) and activity depends on the insect's development, evidence of activity will be slower than typical contact insecticides. \*Not for use in California.

CROPS	PESTS	PRODUCT RATE PER ACRE	INSTRUCTIONS
Blackberry including: Bingleberry Black Satin Berry Boysenberry Cherokee Blackberry Chesterberry Cheyenne Blackberry Coryberry Darrowberry Dewberry Dirksen Thornless Berry Himalayaberry Hullberry Lavacaberry Lowberry Lucretiaberry Mammoth Blackberry Marionberry Necterberry Olallieberry Oregon Evergreen berry Phenomenalberry Rangerberry 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	Cherry Fruitworm Cranberry Fruitworm Lecanium Scale	16 fl ozs	<p>Apply with ground or air equipment as a full coverage spray (minimum of 5 gals/A by air or 50 gals/A by ground). Thorough coverage is critical for adequate control. It is essential to use adequate water volume to ensure thorough coverage.</p> <p><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.</p> <p><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.</p>
<p><b>A118.01</b> may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management (IPM) and Insect Resistance Management (IRM) programs.</p> <p><b>Restrictions:</b></p> <ul style="list-style-type: none"> <li>• Do not apply within 7 days of harvest.</li> <li>• Do not make more than 2 <b>A118.01</b> applications per growing season.</li> <li>• Do not exceed 32 fl ozs of <b>A118.01</b> per acre per calendar year.</li> <li>• Do not apply earlier than 14 days after last <b>A118.01</b> treatment.</li> <li>• Regardless of formulation, do not apply more than 0.215 lb pyriproxyfen per acre per calendar year.</li> </ul>			

CROPS	PESTS	PRODUCT RATE PER ACRE	INSTRUCTIONS
Cultivars, varieties, and/or hybrids of these			

**MANAGING INSECT RESISTANCE:** Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant insect strains. To optimize resistance management practices, Atticus, LLC is restricting **A118.01** to no more than two applications per growing season. **A118.01** 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)**

**A118.01** acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. **A118.01** has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since **A118.01** 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	INSTRUCTIONS
Australian Desert Lime Australian Finger-lime Australian Round Lime Brown River Finger Lime Calamondin Citron Citrus hybrids Grapefruit Japanese Summer Grapefruit Kumquat Lemon Lime Mediterranean Mandarin Mount White Lime New Guinea Wild Lime Orange, Sour Orange, Sweet Pummelo Russell River Lime Satsuma Mandarin Sweet Lime Tachibana Orange Tahiti Lime Tangelo Tangerine (mandarin) Tangor Trifoliate Orange Uniq Fruit Cultivars, varieties, and/or hybrids of these	Black Scale Brown Soft Scale California Red Scale Florida Red Scale Snow Scale	16 fl ozs	<p>Apply with ground equipment in 200 to 1500 gals/A. Apply in sufficient water volume for tree size. Thorough coverage is critical for control. It is essential to use adequate water volume to ensure thorough coverage.</p> <p>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.</p> <p><b>A118.01</b> may be applied with superior spray oils at ½ to 1%. Follow the manufacturer's directions and recommendations on timing and rates.</p> <p><b>Restriction:</b> For scale apply during emergence of scale crawlers, do not apply more than 16 fl ozs of <b>A118.01</b> per acre per year.</p>
Tangerine (mandarin) Tangor Trifoliate Orange Uniq Fruit Cultivars, varieties, and/or hybrids of these	Citrus Black Fly Citrus Leafminer Citrus Whitefly	10 fl ozs	<p>Apply with ground equipment in 200 to 1500 gals/A. Apply in sufficient water volume for tree size. Thorough coverage is critical for control. It is essential to use adequate water volume to ensure thorough coverage.</p> <p>Apply when pests are just beginning to build and before infestation has occurred. Thorough coverage is essential for good control.</p> <p><b>Restriction:</b> Do not make more than 2 applications of <b>A118.01</b> per acre per year.</p>

**A118.01** may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management (IPM) and Insect Resistance Management (IRM) programs.

**Restrictions:**

- Do not apply within 1 day of harvest.
- Do not exceed 26 fl ozs of **A118.01** per acre per calendar year.
- Do not apply earlier than 21 days after last **A118.01** treatment.
- Regardless of formulation, do not apply more than 0.175 lb pyriproxyfen per acre per calendar year.

**MANAGING INSECT RESISTANCE:** Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant insect strains. To optimize resistance management practices, Atticus, LLC is restricting **A118.01** to no more than two applications per growing season. **A118.01** 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**

**A118.01** acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. **A118.01** has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since **A118.01** is an Insect Growth Regulator (IGR) and activity depends on the insect's development, evidence of activity will be slower than typical contact insecticides.

A118.0 does exhibit translaminar movement which means that **A118.01** applied to the upper surfaces of the leaves will move to the lower surface of the leaf. This translaminar movement is very important to chemical control of whitefly since one of the major obstacles is getting the product to the underside of the leaves where whitefly are present.

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

**Restrictions:**

- Do not apply within 28 days of harvest.
- Do not make more than 1 **A118.01** application per growing season.
- Do not exceed 10 fl ozs of **A118.01** 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, Atticus, LLC is restricting **A118.01** to no more than one application per growing season. **A118.01** may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Atticus, LLC also does not recommend using rates below 8 fl ozs per acre for whitefly control because reduced rates can lead to a greater potential for resistance development. Follow local, state and federal Integrated Pest Management (IPM) and Insect Resistance Management (IRM) recommendations. Read and follow all product labels before applying any insecticide.

## CUCURBITS

### (Crop Group 9)

**A118.01** acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. **A118.01** has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since **A118.01** is an Insect Growth Regulator (IGR) and activity depends on the insect's development, evidence of activity will be slower than typical contact insecticides.

**A118.01** does exhibit translaminar movement which means that **A118.01** applied to the upper surfaces of the leaves will move to the lower surface of the leaf. This translaminar movement is very important to chemical control of whitefly since one of the major obstacles is getting the product to the underside of the leaves where whitefly are present.

CROPS	PESTS	PRODUCT RATE PER ACRE	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	Banded Wing Whitefly Greenhouse Whitefly Silverleaf Whitefly Sweetpotato Whitefly	8 to 10 fl ozs  Do not apply less than 8 fl ozs/A.	Apply with air or ground equipment in adequate water for uniform coverage:  By Air: 3 to 10 gals/A By Ground: 10 to 50 gals/A  <b>HIGHER WATER VOLUMES MAY PROVIDE IMPROVED INSECT CONTROL.</b>  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.  Only whole fields should be treated but is not required.
<b>Restrictions:</b> <ul style="list-style-type: none"> <li>Do not apply within 7 days of harvest.</li> <li>Do not make more than 2 <b>A118.01</b> applications per growing season.</li> <li>Do not exceed 20 fl ozs of <b>A118.01</b> per acre per calendar year.</li> </ul>			

	<ul style="list-style-type: none"> <li>• Do not apply earlier than 14 days after last <b>A118.01</b> treatment.</li> <li>• Regardless of formulation, do not apply more than 0.134 lb pyriproxyfen per acre per calendar year.</li> <li>• Do not plant any crop other than those with registered pyriproxyfen uses in treated areas sooner than 30 days after the last application.</li> </ul>
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**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, Atticus, LLC is restricting **A118.01** to no more than one application per growing season. **A118.01** may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Atticus, LLC also does not recommend using rates below 8 fl ozs per acre for whitefly control because reduced rates can lead to a greater potential for resistance development. Follow local, state and federal Integrated Pest Management (IPM) and Insect Resistance Management (IRM) recommendations. Read and follow all product labels before applying any insecticide.

## FRUITING VEGETABLES

### (Crop Group 8-10)

**A118.01** acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. **A118.01** has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since **A118.01** is an Insect Growth Regulator (IGR) and activity depends on the insect's development, evidence of activity will be slower than typical contact insecticides.

A118.0 does exhibit translaminar movement which means that **A118.01** applied to the upper surfaces of the leaves will move to the lower surface of the leaf. This translaminar movement is very important to chemical control of whitefly since one of the major obstacles is getting the product to the underside of the leaves where whitefly are present.

CROPS	PESTS	PRODUCT RATE PER ACRE	INSTRUCTIONS
African Eggplant Bush Tomato Bell Pepper Cocona Currant Tomato Eggplant Garden Huckleberry Goji Berry Ground Cherry Martynia Naranjilla Okra Pea Eggplant Pepino Pepper, Bell Pepper, Nonbell Roselle Scarlet Eggplant Sunberry Tomatillo Tomato	Banded Wing Whitefly Greenhouse Whitefly Silverleaf Whitefly Sweetpotato Whitefly	8 to 10 fl ozs  Do not apply less than 8 fl ozs/A of <b>A118.01</b> when used as a stand-alone application.	Apply with air or ground equipment in adequate water for uniform coverage:  By Air: 3 to 10 gals/A By Ground: 10 to 50 gals/A  <b>HIGHER WATER VOLUMES MAY PROVIDE IMPROVED INSECT CONTROL.</b>  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.  Only whole fields should be treated but is not required.

CROPS	PESTS	PRODUCT RATE PER ACRE	INSTRUCTIONS
Tree Tomato Cultivars, varieties, and/or hybrids or these	Banded Wing Whitefly Cabbage Looper Green Peach Aphid Greenhouse Whitefly (immatures & adults) Silverleaf Whitefly Sweetpotato Whitefly Tobacco Hornworm	6 to 8 fl ozs	<p>Apply as a tank mix with ground equipment for uniform coverage (25 to 150 gals/A by ground). Make application when eggs or insects first appear. If control is needed during this period use an alternate insecticide registered for the target pest.</p> <p>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.</p>
	<p><b>A118.01</b> may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management (IPM) and Insect Resistance Management (IRM) programs.</p> <p><b>Restrictions:</b></p> <ul style="list-style-type: none"> <li>Do not apply within 1 day of harvest.</li> <li>Do not make more than 2 <b>A118.01</b> applications per growing season.</li> <li>Do not exceed 16 fl ozs of <b>A118.01</b> per acre per calendar year.</li> <li>Do not apply earlier than 14 days after last <b>A118.01</b> treatment.</li> <li>Regardless of formulation, do not apply more than 0.108 lb pyriproxyfen per acre per calendar year.</li> <li>Do not plant any crop other than those with registered pyriproxyfen uses in treated areas sooner than 30 days after the last application.</li> </ul>		
CROPS	PESTS	PRODUCT RATE PER ACRE	INSTRUCTIONS
Tomato	Banded Wing Whitefly Beet Armyworm Greenhouse Whitefly (immatures & adults) Potato Aphid Silverleaf Whitefly Sweetpotato Whitefly Thrips Tomato Pinworm Yellowstriped Armyworm	6 to 8 fl ozs  +  Danitol® 2.4 EC Spray (fenpropathrin, 59639-35) 10-2/3 fl ozs	<p><b>EARLY SEASON WHITEFLY CONTROL PROGRAM FOR REDUCTION OF GEMINIVIRUS:</b></p> <p>Apply as a tank mix with ground equipment for uniform coverage (10 to 120 gals/A). Make application when scouting first indicates adult whiteflies are on young plants. <b>NOTE:</b> This may result in treatment immediately following transplanting.</p> <p><b>MID TO LATE SEASON WHITEFLY CONTROL PROGRAM FOR PREVENTION OF IRREGULAR FRUIT RIPENING:</b> Apply as a tank</p>

CROPS	PESTS	PRODUCT RATE PER ACRE	INSTRUCTIONS
			<p>mix with ground equipment for uniform coverage (20 to 120 gals/A by ground). Make application when scouting indicates whiteflies are present.</p> <p><b>A118.01</b> may also be mixed or alternated with commonly used insecticides to comply with local IPM programs.</p> <p>Comply with all applicable directions, restrictions and precautions on the registered label for <i>Danitol 2.4 EC</i> spray.</p>
			<p><b>A118.01</b> may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management (IPM) and Insect Resistance Management (IRM) programs.</p> <ul style="list-style-type: none"> <li>• Do not apply within 14 days of harvest.</li> <li>• Do not make more than 2 <b>A118.01</b> applications per growing season.</li> <li>• Do not exceed 16 fl ozs <b>A118.01</b> per acre per calendar year.</li> <li>• Do not apply earlier than 14 days after last <b>A118.01</b> treatment.</li> <li>• Regardless of formulation, do not apply more than 0.108 lb pyriproxyfen per acre per calendar year.</li> <li>• Do not plan any crop other than those with registered pyriproxyfen uses in treated areas sooner than 30 days after the last application.</li> </ul>

**MANAGING INSECT RESISTANCE:** Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant insect strains. To optimize resistance management practices, Atticus, LLC is restricting **A118.01** to no more than two applications per growing season. **A118.01** 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

**A118.01** acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. **A118.01** has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since **A118.01** 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	INSTRUCTIONS
Glassy-Winged Sharpshooter Grape Berry Moth Lecanium Scale	16 fl ozs	<p>Apply with ground equipment as a full coverage spray (50 to 200 gals/A). Thorough coverage is critical for adequate control. It is essential to use adequate water volume to ensure thorough coverage.</p> <p><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.</p> <p>Follow local recommendations regarding in-season use and rates of oil in your area.</p>
<p><b>A118.01</b> may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management (IPM) and Insect Resistance Management (IRM) programs.</p> <p><b>Restrictions:</b></p> <ul style="list-style-type: none"> <li>• Do not apply within 21 days of harvest.</li> <li>• Do not make more than 2 <b>A118.01</b> applications per growing season.</li> <li>• Do not exceed 32 fl ozs of <b>A118.01</b> per acre per calendar year.</li> <li>• Do not apply earlier than 14 days after last <b>A118.01</b> treatment.</li> <li>• Regardless of formulation, do not apply more than 0.215 lb pyriproxyfen per acre per calendar year.</li> </ul>		

**MANAGING INSECT RESISTANCE:** Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant insect strains. To optimize resistance management practices, Atticus, LLC is restricting **A118.01** to no more than two applications per growing season. **A118.01** may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Follow local, state and federal IPM and IRM recommendations. Read and follow all product labels before applying any insecticide.

## HERB (Subgroup 19A)

**A118.01** acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. **A118.01** has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since **A118.01** is an Insect Growth Regulator (IGR) and activity depends on the insect's development, evidence of activity will be slower than typical contact insecticides.

**A118.01** does exhibit translaminar movement which means that **A118.01** applied to the upper surfaces of the leaves will move to the lower surface of the leaf. This translaminar movement is very important to chemical control of whitefly since one of the major obstacles is getting the product to the underside of the leaves where whitefly are present.

CROPS	PESTS	PRODUCT RATE PER ACRE	INSTRUCTIONS
Angelica Balm Basil Borage Burnet Chamomile Catnip Chervil (dried) Chive Chive, Chinese Clary 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	Whiteflies, including: Banded Wing Whitefly Greenhouse Whitefly Silverleaf Whitefly Sweetpotato Whitefly	8 to 10 fl ozs	Apply with ground equipment in adequate water for uniform coverage. A minimum of 20 gallons per acre for ground applications.  <b>HIGHER WATER VOLUMES MAY PROVIDE IMPROVED INSECT CONTROL.</b>  Begin application when whiteflies reach threshold levels per University/Extension recommendations.  Under severe pressure, use the higher labeled rates.
<b>Restrictions:</b> <ul style="list-style-type: none"> <li>Do not apply within 1 (one) day of harvest.</li> <li>Do not make more than 2 <b>A118.01</b> applications per growing season.</li> <li>Do not exceed 20 fl ozs of A118.81 per acre per calendar year.</li> <li>Do not apply earlier than 14 days after last <b>A118.01</b> treatment.</li> <li>Regardless of formulation, do not exceed 0.134 lb pyriproxyfen per acre per calendar year.</li> <li>Do not plant any crop other than those with registered <b>A118.01</b> uses in treated areas sooner than 30 days after the last application.</li> <li>Treat only whole fields.</li> </ul>			



**MANAGING WHITEFLY RESISTANCE:** Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant whitefly strains. To optimize resistance management practices, Atticus, LLC is restricting **A118.01** to no more than two applications per growing season. **A118.01** may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Atticus, LLC also does not recommend using rates below 8 fl ozs/A for whitefly control because reduced rates can lead to a greater potential for resistance development. Follow local, state and federal Integrated Pest Management (IPM) and Insect Resistance Management (IRM) recommendations. Read and follow all product labels before applying any insecticide.

## LEAFY VEGETABLES

### Except Brassica Vegetables (Crop Group 4)

**A118.01** acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. **A118.01** has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since **A118.01** is an Insect Growth Regulator (IGR) and activity depends on the insect's development, evidence of activity will be slower than typical contact insecticides.

**A118.01** does exhibit translaminar movement which means that **A118.01** applied to the upper surfaces of the leaves will move to the lower surface of the leaf. This translaminar movement is very important to chemical control of whitefly since one of the major obstacles is getting the product to the underside of the leaves where whitefly are present.

CROPS	PESTS	PRODUCT RATE PER ACRE	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 Swiss Chard	Banded Wing Whitefly Greenhouse Whitefly Silverleaf Whitefly Sweetpotato Whitefly	8 to 10 fl ozs	Apply with ground equipment in adequate water for uniform coverage (10 to 50 gals/A).  <b>HIGHER WATER VOLUMES MAY PROVIDE IMPROVED INSECT CONTROL.</b>  Begin application when whiteflies reach threshold levels per University/Extension recommendations.  Under severe pressure, use the higher labeled rates.  Only whole fields should be treated but is not required.
	<b>Restrictions:</b> <ul style="list-style-type: none"> <li>Do not apply within 14 days of harvest.</li> <li>Do not make more than 2 <b>A118.01</b> applications per growing season.</li> <li>Do not exceed 20 fl ozs of <b>A118.01</b> per acre per calendar year.</li> <li>Do not apply earlier than 14 days after last <b>A118.01</b> treatment.</li> <li>Regardless of formulation, do not apply more than 0.134 lb pyriproxyfen per acre per calendar year.</li> <li>Do not plant any crop other than those with registered pyriproxyfen uses in treated areas sooner than 30 days after the last application.</li> </ul>		

**MANAGING WHITEFLY RESISTANCE:** Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant whitefly strains. To optimize resistance management practices, Atticus, LLC is restricting **A118.01** to no more than two applications per growing season. **A118.01** may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Atticus, LLC also does not recommend using rates below 8 fl ozs/A for whitefly control because reduced rates can lead to a greater potential for resistance development. Follow local, state and federal Integrated Pest Management (IPM) and Insect Resistance Management (IRM) recommendations. Read and follow all product labels before applying any insecticide.

## LEAVES OF ROOT & TUBER VEGETABLES

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

**A118.01** acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. **A118.01** has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since **A118.01** is an Insect Growth Regulator (IGR) and activity depends on the insect's development, evidence of activity will be slower than typical contact insecticides.

A118.0 does exhibit translaminar movement which means that **A118.01** applied to the upper surfaces of the leaves will move to the lower surface of the leaf. This translaminar movement is very important to chemical control of whitefly since one of the major obstacles is getting the product to the underside of the leaves where whitefly are present.

CROPS	PESTS	PRODUCT RATE PER ACRE	INSTRUCTIONS
Beet, Garden Burdock, Edible Carrot Cassava, Bitter Cassava, Sweet Celeriac Chervil, Turnip-Rooted Chicory Dasheen (Taro) Parsnip Radish Radish, Oriental (daikon) Rutabaga Salsify, Black Sugar Beet Sweet Potato Tanier Turnip Yam, True	Banded Wing Whitefly Greenhouse Whitefly Silverleaf Whitefly Sweetpotato Whitefly	8 to 10 fl ozs	Apply with ground equipment in adequate water for uniform coverage (10 to 50 gals/A).  <b>HIGHER WATER VOLUMES MAY PROVIDE IMPROVED INSECT CONTROL.</b>  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.  Only whole fields should be treated but is not required.
<b>Restrictions:</b> <ul style="list-style-type: none"> <li>Do not apply within 7 days of harvest.</li> <li>Do not make more than 2 <b>A118.01</b> applications per growing season.</li> <li>Do not exceed 16 fl ozs of <b>A118.01</b> per acre per calendar year.</li> <li>Do not apply earlier than 14 days after last <b>A118.01</b> treatment.</li> <li>Regardless of formulation, do not apply more than 0.107 lb pyriproxyfen per acre per calendar year.</li> <li>Do not plant any crop other than those with registered pyriproxyfen uses in treated areas sooner than 30 days after the last application.</li> <li>Do not allow livestock to graze on treated areas.</li> </ul>			

**MANAGING WHITEFLY RESISTANCE:** Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant whitefly strains. To optimize resistance management practices, Atticus, LLC is restricting **A118.01** to no more than two applications per growing season. **A118.01** may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Atticus, LLC also does not recommend using rates below 8 fl ozs/A for whitefly control because reduced rates can lead to a greater potential for resistance development. Follow local, state and federal Integrated Pest Management (IPM) and Insect Resistance Management (IRM) recommendations. Read and follow all product labels before applying any insecticide.

## LEGUME VEGETABLES

### Succulent or Dried (Crop Group 6)

**A118.01** acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. **A118.01** has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since **A118.01** is an Insect Growth Regulator (IGR) and activity depends on the insect's development, evidence of activity will be slower than typical contact insecticides.

A118.0 does exhibit translaminar movement which means that **A118.01** applied to the upper surfaces of the leaves will move to the lower surface of the leaf. This translaminar movement is very important to chemical control of whitefly since one of the major obstacles is getting the product to the underside of the leaves where whitefly are present.

CROPS	PESTS	PRODUCT RATE PER ACRE	INSTRUCTIONS
Beans ( <i>Lupinus</i> ): Grain Lupin Sweet Lupin White Lupin White Sweet Lupin Beans ( <i>Phaseolus</i> ): Field Bean Kidney Bean Lima Bean Navy Bean Pinto Bean Runner Bean Snap Bean Tepary Bean Wax Bean Bean ( <i>Vigna</i> ): Adzuki Bean Asparagus Bean Blackeyed Pea Catjang Chinese Longbean Cowpea Crowder Pea Moth Bean Mung Bean Rice Bean Southern Pea	Banded Wing Whitefly Greenhouse Whitefly Silverleaf Whitefly Sweetpotato Whitefly	8 to 10 fl ozs	EARLY SEASON WHITEFLY PROGRAM: Apply with ground equipment in adequate water for uniform coverage (10 to 50 gals/A). Thorough coverage is critical for adequate control. It is essential to use adequate water volume to ensure thorough coverage.  Begin 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.  Only whole fields should be treated but is not required.
	[¹California only] [¹New York only] [Not for use on soybeans] <b>Restrictions:</b> <ul style="list-style-type: none"> <li>Do not apply within 7 days of harvest.</li> <li>Do not make more than 2 <b>A118.01</b> applications per growing season.</li> <li>Do not exceed 20 fl ozs of <b>A118.01</b> per acre per calendar year.</li> <li>Do not apply earlier than 14 days after last <b>A118.01</b> treatment.</li> </ul>		

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 Snowpea Sugar Snap Pea Pigeon Pea Soybean <sup>[1]</sup> Sword Bean	<ul style="list-style-type: none"> <li>• Regardless of formulation, do not apply more than 0.134 lb pyriproxyfen per acre per calendar year.</li> <li>• Do not plant any crop other than those with registered pyriproxyfen uses in treated areas sooner than 30 days after the last application.</li> <li>• Do not allow livestock to graze on treated areas.</li> <li>• Do not use on legume vegetables varieties grown for livestock feed.</li> </ul>
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**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, Atticus, LLC is restricting **A118.01** to no more than two applications per growing season. **A118.01** may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Atticus, LLC also does not recommend using rates below 8 fl ozs per acre for whitefly control because reduced rates can lead to a greater potential for resistance development. Follow local, state, and federal Integrated Pest Management (IPM) and Insect Resistance Management (IRM) recommendations. Read and follow all product labels before applying any insecticide.

## OLIVE

**A118.01** acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. **A118.01** has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since **A118.01** 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	INSTRUCTIONS
Black Scale San Jose Scale	13 to 16 fl ozs	<p>Apply with ground equipment in 100 to 400 gals/A. Apply in sufficient water volume for tree size. Thorough coverage is critical for adequate control. It is essential to use adequate water volume to ensure thorough coverage.</p> <p>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.</p> <p>Under heavy scale pressure, use the higher rate of <b>A118.01</b>.</p>

**A118.01** may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management (IPM) and Insect Resistance Management (IRM) programs.

**Restrictions:**

- Do not apply within 7 days of harvest.
- Do not make more than 2 **A118.01** applications per growing season.
- Do not exceed 32 fl ozs of **A118.01** per acre per calendar year.
- Do not apply earlier than 14 days after last **A118.01** 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, Atticus, LLC is restricting **A118.01** to no more than two applications per growing season. **A118.01** 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

**A118.01** acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. **A118.01** has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since **A118.01** 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	INSTRUCTIONS
Cricket Grasshopper Locust	8 to 10 fl ozs	<p>Apply with air or ground equipment in adequate water for uniform coverage:</p> <p>By air.....3 to 10 gals/A By ground.....10 to 50 gals/A</p> <p><b>HIGHER WATER VOLUMES PROVIDE IMPROVED INSECT CONTROL.</b></p> <p>Begin application when pests reach threshold levels per University/Extension recommendations.</p> <p>Under severe pressure, use the higher labeled rates.</p>

**A118.01** may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management (IPM) and Insect Resistance Management (IRM) programs.

**Restrictions:**

- Do not make more than 2 **A118.01** applications per growing season.
- Do not exceed 20 fl ozs of **A118.01** 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 **A118.01** 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, Atticus, LLC is restricting **A118.01** to no more than two applications per growing season. **A118.01** 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

**A118.01** acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. **A118.01** has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since **A118.01** is an Insect Growth Regulator (IGR) and activity depends on the insect's development, evidence of activity will be slower than typical contact insecticides.

**A118.01** does exhibit translaminar movement which means that **A118.01** applied to the upper surfaces of the leaves will move to the lower surface of the leaf. This translaminar movement is very important to chemical control of whitefly since one of the major obstacles is getting the product to the underside of the leaves where whitefly are present.

PESTS	PRODUCT RATE PER ACRE	INSTRUCTIONS
Scale Whitefly	13 to 16 fl ozs	<p>Apply 100 to 400 gals/A with ground equipment. Coverage is essential for good control. Apply in sufficient water volume for tree size. Use of higher water volume will assure better coverage.</p> <p><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.</p> <p>In a cover spray make applications when scale crawlers first emerge.</p> <p>Under heavy scale pressure, use the higher rate of <b>A118.01</b>.</p>
<p>In-season sprays of <b>A118.01</b> may not protect fruit from blemishes by scale.</p> <p><b>A118.01</b> may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management (IPM) and Insect Resistance Management (IRM) programs.</p> <p><b>Restrictions:</b></p> <ul style="list-style-type: none"> <li>• Do not apply within 14 days of harvest.</li> <li>• Do not make more than 3 <b>A118.01</b> applications per growing season.</li> <li>• Do not exceed 48 fl ozs of <b>A118.01</b> per acre per calendar year.</li> <li>• Do not apply earlier than 14 days after last <b>A118.01</b> treatment.</li> <li>• Regardless of formulation, do not apply more than 0.323 lb pyriproxyfen per acre per calendar year.</li> </ul>		

**MANAGING INSECT RESISTANCE:** Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant insect strains. To optimize resistance management practices, Atticus, LLC is restricting **A118.01** to no more than three applications per growing season. **A118.01** 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

**A118.01** acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. **A118.01** has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since **A118.01** 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	INSTRUCTIONS
Black Scale Brown Soft Scale California Red Scale Florida Red Scale Snow Scale	16 fl ozs	<p>Apply with ground equipment in 20 to 50 gals/A. Apply in sufficient water volume for plant size. Thorough coverage is critical for control. It is essential to use adequate water volume to ensure thorough coverage.</p> <p>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.</p> <p><b>A118.01</b> may be applied with superior spray oils at ½ to 1%. Follow the manufacturer's directions and recommendations on timing and rates.</p>
<p><b>A118.01</b> may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management (IPM) and Insect Resistance Management (IRM) programs.</p> <p><b>Restrictions:</b></p> <ul style="list-style-type: none"> <li>• Do not apply within 1 day of harvest.</li> <li>• Do not make more than 2 <b>A118.01</b> applications per calendar year.</li> <li>• Do not exceed 32 fl ozs of <b>A118.01</b> per acre per calendar year.</li> <li>• Do not apply earlier than 21 days after last <b>A118.01</b> treatment.</li> <li>• Regardless of formulation, do not apply more than 0.215 lb pyriproxyfen per acre per calendar year.</li> </ul>		

**MANAGING INSECT RESISTANCE:** Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant insect strains. To optimize resistance management practices, Atticus, LLC is restricting **A118.01** to no more than two applications per growing season. **A118.01** 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)**

**A118.01** acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. **A118.01** has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since **A118.01** 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	INSTRUCTIONS
Apple Azarole Crabapple Loquat Mayhaw Medlar Quince Quince, Chinese Quince, Japanese Tejocote Cultivars, varieties, and/or hybrids of these	Codling Moth  Suppression of: Obliquebanded Leafroller Pandemis Leafroller	13 to 16 fl ozs	Apply by ground with airblast equipment in a minimum of 50 gals/A. Thorough coverage is critical for control. It is essential to use adequate water volume to ensure thorough coverage.  <b>1<sup>st</sup> Generation Codling Moth:</b> 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 <b>A118.01</b> . 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. <b>A118.01</b> 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 ozs	Apply by ground with airblast equipment in a minimum of 50 gals/A. Thorough coverage is critical for control. It is essential to use adequate water volume to ensure thorough coverage.  Apply at delayed dormant through pink. For delayed dormant, use a superior spray oil at the manufacturer's recommended rate of oil. Under heavy scale pressure, use the higher rate of <b>A118.01</b> .  <b>Scale:</b> For control in-season, make application in cover sprays when scale crawlers first emerge. The



CROPS	PESTS	PRODUCT RATE PER ACRE	INSTRUCTIONS
			use of an oil at the crawler emergence stage has been shown to improve control. Follow local recommendations regarding in-season use and rates of oil in your area.
	Green Apple Aphid Rosy Apple Aphid Spirea Aphid Spotted Tentiform Leafminer Western Tentiform Leafminer	10 to 16 fl ozs	<p>Apply by ground with airblast equipment in a minimum of 50 gals/A. Thorough coverage is critical for control. It is essential to use adequate water volume to ensure thorough coverage.</p> <p><b>Leafminers:</b> Apply at peak moth flight for control of 1<sup>st</sup> or 2<sup>nd</sup> generation. This usually occurs at pre-pink to pink apple stage for 1<sup>st</sup> generation and 2<sup>ns</sup> cover for 2<sup>nd</sup> generation.</p> <p><b>Rosy Apple Aphid:</b> Apply at ½" green apple growth stage.</p> <p><b>Green Apple &amp; Spirea Aphid:</b> Apply when aphids first appear, but before aphids are colonized.</p> <p><b>TIMING IS CRITICAL FOR ACCEPTABLE APHID CONTROL.</b></p>
Pear Pear, Asian	Pear Psylla	13 to 16 fl ozs	<p>Apply by ground with airblast equipment in 75 to 400 gals/A with a superior spray oil at manufacturer's recommended rates for the stage of growth. It is essential to use adequate water volume to ensure thorough coverage.</p> <p>Apply a single application during the delayed dormant to pink stage of growth at 16 fl ozs/A or make two applications from delayed dormant through petal fall stage of growth at 13 to 16 fl ozs/A. Make application just before sustained egg lay is anticipated.</p> <p><b>DO NOT SKIP ROWS DURING APPLICATION.</b></p> <p>For in-season control of pear psylla, use an insecticide recommended for this use.</p>
Pear Pear, Asian (Cont'd)	Lecanium Scale San Jose Scale	13 to 16 fl ozs	Apply by ground with airblast equipment in 100 to 400 gals/A at delayed dormant with a superior

CROPS	PESTS	PRODUCT RATE PER ACRE	INSTRUCTIONS
			<p>spray oil at the manufacturer's recommended rates. Under heavy scale pressure, use the higher rate.</p> <p>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.</p> <p>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.</p>
Pear Pear, Asian (Cont'd)	<p>Codling Moth</p> <p>Suppression of: Obliquebanded Leafroller Pandemis Leafroller</p>	13 to 16 fl ozs	<p>Apply by ground with airblast equipment in 100 to 400 gals/A.</p> <p><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 <b>A118.01</b>. Follow local recommendations regarding in-season use and rates of oil in your area.</p> <p>For additional generations apply other insecticides registered for Codling Moth Control.</p>
<p><b>A118.01</b> may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management (IPM) and Insect Resistance Management (IRM) programs.</p> <p><b>Restrictions:</b></p> <ul style="list-style-type: none"> <li>Do not apply within 45 days of harvest.</li> <li>Do not make more than 2 <b>A118.01</b> applications per growing season.</li> <li>Do not exceed 32 fl ozs of <b>A118.01</b> per acre per calendar year.</li> <li>Do not apply earlier than 14 days after last <b>A118.01</b> treatment.</li> <li>Regardless of formulation, do not apply more than 0.215 lb pyriproxyfen per acre per calendar year.</li> </ul>			

**MANAGING INSECT RESISTANCE:** Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant insect strains. To optimize resistance management practices, Atticus, LLC is restricting **A118.01** to no more than two applications per growing season. **A118.01** may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Follow local, state, and federal Integrated Pest Management (IPM) and Insect Resistance Management (IRM) recommendations. Read and follow all product labels before applying any insecticide.

## POMEGRANATE

**A118.01** acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. **A118.01** has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since **A118.01** is an Insect Growth Regulator (IGR) and activity depends on the insect's development, evidence of activity will be slower than typical contact insecticides.

**A118.01** does exhibit translaminar movement which means that **A118.01** applied to the upper surfaces of the leaves will move to the lower surface of the leaf. This translaminar movement is very important to chemical control of whitefly since one of the major obstacles is getting the product to the underside of the leaves where whitefly are present.

PESTS	PRODUCT RATE PER ACRE	INSTRUCTIONS
Banded Wing Whitefly Greenhouse Whitefly Silverleaf Whitefly Sweetpotato Whitefly	13 to 16 fl ozs	<p>Apply with air or ground equipment in adequate water for uniform coverage:</p> <p style="padding-left: 40px;">By air: 3 to 10 gals/A By ground: 10 to 50 gals/A</p> <p><b>HIGHER WATER VOLUMES MAY PROVIDE IMPROVED INSECT CONTROL.</b></p> <p>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).</p> <p>Only whole fields should be treated but is not required.</p>
<p><b>Restrictions:</b></p> <ul style="list-style-type: none"> <li>• Do not apply within 14 days of harvest.</li> <li>• Do not make more than 3 <b>A118.01</b> applications per growing season.</li> <li>• Do not exceed 48 fl ozs of <b>A118.01</b> per acre per calendar year.</li> <li>• Do not apply earlier than 14 days after last <b>A118.01</b> treatment.</li> <li>• Regardless of formulation, do not apply more than 0.323 lb pyriproxyfen per acre per calendar year.</li> <li>• Do not plant any crop other than those with registered pyriproxyfen uses in treated areas sooner than 30 days after the last application.</li> </ul>		

**MANAGING WHITEFLY RESISTANCE:** Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant whitefly strains. To optimize resistance management practices, Atticus, LLC is restricting **A118.01** to no more than three applications per growing season. **A118.01** may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Atticus, LLC also does not recommend using rates below 13 fl ozs per acre for whitefly control because reduced rates can lead to a greater potential for resistance development. Follow local, state, and federal Integrated Pest Management (IPM) and Insect Resistance Management (IRM) recommendations. Read and follow all product labels before applying any insecticide.

## ROOT AND TUBER VEGETABLES

### (Crop Group 1)

**A118.01** acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. **A118.01** has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since **A118.01** is an Insect Growth Regulator (IGR) and activity depends on the insect's development, evidence of activity will be slower than typical contact insecticides.

**A118.01** does exhibit translaminar movement which means that **A118.01** applied to the upper surfaces of the leaves will move to the lower surface of the leaf. This translaminar movement is very important to chemical control of whitefly since one of the major obstacles is getting the product to the underside of the leaves where whitefly are present.

CROPS	PESTS	PRODUCT RATE PER ACRE	INSTRUCTIONS
Arracacha Arrowroot Artichoke, Chinese Artichoke, Jerusalem Beet, Garden Beet, Sugar Burdock, Edible Canna, Edible Carrot Cassava, (bitter and sweet) Celeriac Chayote (root) Chervil, Turnip-rooted Chicory Chufa Dasheen (taro) Ginger 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	Banded Wing Whitefly Greenhouse Whitefly Silverleaf Whitefly Sweetpotato Whitefly	8 fl ozs	Apply with ground equipment in adequate water for uniform coverage (20 to 50 gals/A).  <b>HIGHER WATER VOLUMES MAY PROVIDE IMPROVED INSECT CONTROL.</b>  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.  Only whole fields should be treated but is not required.
<b>Restrictions:</b> <ul style="list-style-type: none"> <li>Do not apply within 7 days of harvest.</li> <li>Do not make more than 2 <b>A118.01</b> applications per growing season.</li> <li>Do not exceed 16 fl ozs of <b>A118.01</b> per acre per calendar year.</li> <li>Do not apply earlier than 14 days after last <b>A118.01</b> treatment.</li> <li>Regardless of formulation, do not apply more than 0.108 lb pyriproxyfen per acre per calendar year.</li> <li>Do not plant any crop other than those with registered pyriproxyfen uses in treated areas sooner than 30 days after the last application.</li> <li>Do not allow livestock to graze on treated areas.</li> </ul>			

**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, Atticus, LLC is restricting **A118.01** to no more than two applications per growing season. **A118.01** may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Atticus, LLC also does not recommend using rates below 8 fl ozs per acre for whitefly control because reduced rates can lead to a greater potential for resistance development. Follow local, state, and federal Integrated Pest Management (IPM) and Insect Resistance Management (IRM) recommendations. Read and follow all product labels before applying any insecticide.

## SMALL FRUIT VINE CLIMBING CROPS (EXCEPT GRAPE)

### (Subgroup 13-07E)

**A118.01** acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. **A118.01** has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since **A118.01** 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	INSTRUCTIONS
Berry, Schisandra Gooseberry Grape, Amur River Kiwifruit, Fuzzy Kiwifruit, Hardy Maypop Cultivars, varieties and/or hybrids of these	Scale	16 fl ozs	<p>Apply with ground or air equipment as a full coverage spray (minimum of 5 gals/A by air or 50 gals/A by ground). Thorough coverage is critical for adequate control. It is essential to use adequate water volume to ensure thorough coverage.</p> <p>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.</p>
<p><b>A118.01</b> may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management (IPM) and Insect Resistance Management (IRM) programs.</p> <p><b>Restrictions:</b></p> <ul style="list-style-type: none"><li>• Do not apply within 30 days of harvest.</li><li>• Do not make more than 2 <b>A118.01</b> applications per growing season.</li><li>• Do not exceed 32 fl ozs of <b>A118.01</b> per acre per calendar year.</li><li>• Do not apply earlier than 14 days after last <b>A118.01</b> treatment.</li><li>• Regardless of formulation, do not apply more than 0.215 lb pyriproxyfen per acre per calendar year.</li></ul>			

**MANAGING INSECT RESISTANCE:** Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant insect strains. To optimize resistance management practices, Atticus, LLC is restricting **A118.01** to no more than two applications per growing season. **A118.01** 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)

**A118.01** acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. **A118.01** has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since **A118.01** 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	INSTRUCTIONS
Apricot Cherry Chickasaw Plum Damson Plum Fresh Prune Japanese Plum Nectarine Peach Plum Plumcot Prune	Lecanium Scale San Jose Scale     Suppression of: Peach Twig Borer Oriental Fruit Moth	13 to 16 fl ozs	Apply in 100 to 400 gals/A with ground equipment. Coverage is essential for good control. Apply in sufficient water volume for tree size. Use of higher water volume will assure better coverage.  <b>Scale:</b> Apply at dormant, delayed dormant or as an in-season cover spray: At dormant, delayed dormant, use a spray oil at the manufacturer's recommended oil rate.  Under heavy scale pressure, use the higher rate of <b>A118.01</b> .  <b>Peach Twig Borer:</b> <b>A118.01</b> has provided good suppression of Peach Twig Borer when applied delayed dormant through bloom sprays. Use a spray oil at the manufacturer's recommended rate for the stage of crop growth.
In-season sprays of <b>A118.01</b> may not protect fruit from blemishes by scale.  <b>A118.01</b> may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management IPM and Insect Resistance Management (IRM) programs.  <b>Restrictions:</b> <ul style="list-style-type: none"><li>• Do not apply within 14 days of harvest.</li><li>• Do not make more than 3 <b>A118.01</b> applications per growing season.</li><li>• Do not exceed 48 fl ozs of <b>A118.01</b> per acre per calendar year.</li><li>• Do not apply earlier than 14 days after last <b>A118.01</b> treatment.</li><li>• Regardless of formulation, do not apply more than 0.323 lb pyriproxyfen per acre per calendar year.</li></ul>			

**MANAGING INSECT RESISTANCE:** Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant insect strains. To optimize resistance management practices, Atticus, LLC is restricting **A118.01** to no more than three applications per growing season. **A118.01** 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

**A118.01** acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. **A118.01** has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since **A118.01** is an Insect Growth Regulator (IGR) and activity depends on the insect's development, evidence of activity will be slower than typical contact insecticides.

**A118.01** does exhibit translaminar movement which means that **A118.01** applied to the upper surfaces of the leaves will move to the lower surface of the leaf. This translaminar movement is very important to chemical control of whitefly since one of the major obstacles is getting the product to the underside of the leaves where whitefly are present.

PESTS	PRODUCT RATE PER ACRE	INSTRUCTIONS
Banded Wing Whitefly Greenhouse Whitefly Silverleaf Whitefly Sweetpotato Whitefly	10 fl ozs	<p>Apply with ground equipment as a full coverage spray (100 to 400 gals/A). Thorough coverage is critical for adequate control. It is essential to use adequate water volume to ensure thorough coverage.</p> <p>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).</p> <p>Only whole fields should be treated but is not required.</p>
<b>Restrictions:</b> <ul style="list-style-type: none"> <li>Do not apply within 2 days of harvest.</li> <li>Do not make more than 2 <b>A118.01</b> applications per growing season.</li> <li>Do not exceed 20 fl ozs of <b>A118.01</b> per acre per calendar year.</li> <li>Do not apply earlier than 30 days after last <b>A118.01</b> treatment.</li> <li>Regardless of formulation, do not apply more than 0.134 lb pyriproxyfen per acre per calendar year.</li> <li>Do not plant any crop other than those with registered pyriproxyfen uses in treated areas sooner than 30 days after the last application.</li> </ul>		

**MANAGING WHITEFLY RESISTANCE:** Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant whitefly strains. To optimize resistance management practices, Atticus, LLC is restricting **A118.01** to no more than two applications per growing season. **A118.01** 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)

**A118.01** acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. **A118.01** has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since **A118.01** 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	INSTRUCTIONS
Almond	Black Scale San Jose Scale  Suppression of: Peach Twig Borer	13 to 16 fl ozs	Apply with ground equipment in 100 to 400 gals/A. Coverage is essential for good control. Apply in sufficient water volume for tree size. Use of higher water volume will assure better coverage.  Apply at either dormant, delayed dormant or an in-season cover spray. At dormant, delayed dormant use a spray oil at the manufacturer's recommended oil rate. In a cover spray make applications when scale crawlers first emerge. Follow local recommendations regarding in-season use and rates of oil in your area.  <b>A118.01</b> has provided good suppression of Peach Twig Borer when applied delayed dormant through bloom sprays.
	<b>Restrictions:</b> <ul style="list-style-type: none"><li>• Do not apply within 21 days of harvest.</li><li>• Do not make more than 1 <b>A118.01</b> application per growing season.</li><li>• Do not exceed 16 fl ozs of <b>A118.01</b> per acre per calendar year.</li><li>• Regardless of formulation, do not apply more than 0.108 lb pyriproxyfen per acre per calendar year.</li></ul>		

**MANAGING INSECT RESISTANCE:** Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant insect strains. To optimize resistance management practices, Atticus, LLC is restricting **A118.01** to one application per growing season. **A118.01** may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Follow local, state, and federal Integrated Pest Management (IPM) and Insect Resistance Management (IRM) recommendations. Read and follow all product labels before applying any insecticide.



**TREE NUTS (Crop Group 14) - continues**

CROPS	PESTS	PRODUCT RATE PER ACRE	INSTRUCTIONS
Beechnut Brazil Butternut Cashew Chestnut Chinquapin Filbert (Hazelnut) Hickory Macadamia Pecan Pistachio Walnut	Codling Moth Dusky Veined Aphid Walnut Aphid	16 fl ozs	<p>Apply with ground equipment in 100 to 400 gals/A. Apply in sufficient water volume for tree size. Thorough coverage is critical for control. It is essential to use adequate water volume to ensure thorough coverage.</p> <p><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 <b>A118.01</b>. Follow local recommendations regarding in-season use and rates of oil in your area.</p>
	Black Scale Brown Soft Scale Italian Scale Lecanium Scale San Jose Scale Walnut Scale  Suppression of: Peach Twig Borer	13 to 16 fl ozs	<p>Apply with ground equipment in 100 to 400 gals/A at either dormant, delayed dormant or an in-season cover spray. The addition of a superior spray oil at dormant or delayed dormant may improve scale control. However, do not use a spray oil in oil sensitive crops such as Walnut. Follow manufacturer's recommendations regarding use and rates of oil for your area.</p> <p>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.</p> <p>Under heavy scale pressure, use the higher rate.</p> <p>Coverage is essential for good control. Apply in sufficient water volume for tree size. Use of higher water volume will assure better coverage.</p>
<b>A118.01</b> may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management (IPM) and Insect Resistance Management (IRM) programs.			

CROPS	PESTS	PRODUCT RATE PER ACRE	INSTRUCTIONS
	<ul style="list-style-type: none"> <li>Do not apply within 21 days of harvest.</li> <li>Do not make more than 2 <b>A118.01</b> applications per growing season.</li> <li>Do not exceed 32 fl ozs of <b>A118.01</b> per acre per calendar year.</li> <li>Do not apply earlier than 14 days after last <b>A118.01</b> treatment.</li> <li>Regardless of formulation, do not apply more than 0.215 lb pyriproxyfen per acre per calendar year.</li> </ul>		

**MANAGING INSECT RESISTANCE:** Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant insect strains. To optimize resistance management practices, Atticus, LLC is restricting **A118.01** to no more than two applications per growing season. **A118.01** 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

**A118.01** acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. **A118.01** has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since **A118.01** 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	INSTRUCTIONS
Acerola Atemoya Avocado Biriba 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	Scale	16 fl ozs	<p>Apply with ground or air equipment as a full coverage spray (minimum of 5 gals/A by air or 50 gals/A by ground). Thorough coverage is critical for adequate control. It is essential to use adequate water volume to ensure thorough coverage.</p> <p>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.</p>
<p><b>A118.01</b> may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management (IPM) and Insect Resistance Management (IRM) programs.</p> <p><b>Restrictions:</b></p> <ul style="list-style-type: none"> <li>Do not apply within 14 days of harvest.</li> <li>Do not make more than 2 <b>A118.01</b> applications per growing season.</li> <li>Do not exceed 32 fl ozs of <b>A118.01</b> per acre per calendar year.</li> <li>Do not apply earlier than 14 days after last <b>A118.01</b> treatment.</li> <li>Regardless of formulation, do not apply more than 0.215 lb pyriproxyfen per acre per calendar year.</li> </ul>			

**MANAGING INSECT RESISTANCE:** Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant insect strains. To optimize resistance management practices, Atticus, LLC is restricting **A118.01** to no more than two applications per growing season. **A118.01** 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

**A118.01** acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. **A118.01** has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since **A118.01** is an Insect Growth Regulator (IGR) and activity depends on the insect's development, evidence of activity will be slower than typical contact insecticides.

**A118.01** does exhibit translaminar movement which means that **A118.01** applied to the upper surfaces of the leaves will move to the lower surface of the leaf. This translaminar movement is very important to chemical control of whitefly since one of the major obstacles is getting the product to the underside of the leaves where whitefly are present.

PESTS	PRODUCT RATE PER ACRE	INSTRUCTIONS
Sharpshooters Whitefly	8 to 10 fl ozs	<p>Apply with ground equipment as a full coverage spray (10 to 50 gals/A). Thorough coverage is critical for adequate control. It is essential to use adequate water volume to ensure thorough coverage.</p> <p>Begin applications when whiteflies reach threshold levels per University/Extension recommendations.</p> <p>Under severe pressure, use the higher labeled rates.</p> <p>Only whole fields should be treated but is not required.</p>
<p><b>A118.01</b> may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management (IPM) and Insect Resistance Management (IRM) programs.</p> <p><b>Restrictions:</b></p> <ul style="list-style-type: none"> <li>Do not apply within 7 days of harvest.</li> <li>Do not make more than 2 <b>A118.01</b> applications per growing season.</li> <li>Do not exceed 20 fl ozs <b>A118.01</b> per acre per calendar year.</li> <li>Do not apply earlier than 14 days after last <b>A118.01</b> treatment.</li> <li>Regardless of formulation, do not apply more than 0.134 lb of pyriproxyfen per acre per calendar year.</li> <li>Do not plant any crop other than those with registered pyriproxyfen uses in treated areas sooner than 30 days after the last application.</li> </ul>		

**MANAGING INSECT RESISTANCE:** Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant whitefly strains. To optimize resistance management practices, Atticus, LLC is restricting **A118.01** to no more than two applications per growing season. **A118.01** may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Atticus, LLC also does not recommend using rates below 8 fl ozs per acre for whitefly control because reduced rates can lead to a greater potential for resistance development. Follow local, state, and federal IPM and IRM recommendations. Read and follow all product labels before applying any insecticide.

## WHITE SAPOTE

**A118.01** acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. **A118.01** has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since **A118.01** 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	INSTRUCTIONS
Black Scale Brown Soft Scale California Red Scale Florida Red Scale Snow Scale	16 fl ozs	<p>Apply with ground equipment in 200 to 1500 gals/A. Apply in sufficient water volume for tree size. Thorough coverage is critical for adequate control. It is essential to use adequate water volume to ensure thorough coverage.</p> <p>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.</p> <p><b>A118.01</b> may be applied with superior spray oils at ½ to 1%. Follow the manufacturer's directions and recommendations on timing and rates.</p> <p><b>Restriction:</b> For scale apply during emergence of scale crawlers, do not apply more than 16 fl ozs of <b>A118.01</b> per acre per year.</p>
Citrus Black Fly Citrus Leafminer Citrus Whitefly	10 fl ozs	<p>Apply with ground application equipment in 200 to 1500 gals/A. Apply in sufficient water volume for tree size. Thorough coverage is critical for control. It is essential to use adequate water volume to ensure thorough coverage.</p> <p>Apply when pests are just beginning to build and before infestation has occurred. Thorough coverage is essential for good control.</p> <p><b>Restriction:</b> Do not make more than 2 applications of <b>A118.01</b> per acre per year.</p>
<p><b>A118.01</b> may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management (IPM) and Insect Resistance Management (IRM) programs.</p> <p><b>Restrictions:</b></p> <ul style="list-style-type: none"> <li>• Do not apply within 1 day of harvest.</li> <li>• Do not exceed 26 fl ozs of <b>A118.01</b> per acre per calendar year.</li> <li>• Do not apply earlier than 21 days after last <b>A118.01</b> treatment.</li> <li>• Regardless of formulation, do not apply more than 0.175 lb of pyriproxyfen per acre per calendar year.</li> </ul>		

**MANAGING INSECT RESISTANCE:** Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant insect strains. To optimize resistance management practices, Atticus, LLC is restricting **A118.01** to no more than two applications per growing season. **A118.01** 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  $\leq$  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  $\frac{1}{4}$  full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. 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  $\frac{1}{4}$  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. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available or 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**

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. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials, resistant strains or other influencing factors in the use of the product, which are beyond the control of Atticus, 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 Atticus, LLC and Seller harmless for any claims relating to such factors.

To the extent allowed by applicable laws, Atticus, 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 the product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or Atticus, LLC and Buyer and User assume the risk of any such use. TO THE EXTENT ALLOWABLE BY APPLICABLE LAW, ATTICUS, LLC MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

To the extent allowed by applicable laws, in no event shall Atticus, LLC or Seller be liable for any incidental, consequential or special damages resulting from the use or handling of this product. TO THE EXTENT ALLOWABLE BY APPLICABLE LAW THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF ATTICUS, 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 ATTICUS, LLC OR SELLER, THE REPLACEMENT OF THE PRODUCT.

Atticus, LLC and Seller offer this product, and Buyer and User accept it, subject to foregoing conditions of sale and limitations or warranty and of liability, which may not be modified except by written agreement signed by a duly authorized representative of Atticus, LLC.

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

Danitol is a restricted use product.

[Distance®] [Knack®] [and] [Esteem®] [is a] [are] registered trademark of Valent U.S.A. Corporation.

## 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
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## A118.01

INSECT GROWTH REGULATOR

[Alternate Brand Names: Defiance 0.86 EC, Cusack 0.86 EC, Reemit 0.86 EC, Cusack Citrus]

ACTIVE INGREDIENT:	By Weight
*Pyriproxyfen: .....	11.23%
OTHER INGREDIENTS: .....	88.77%
TOTAL: .....	100.00%

\*(2-[1-methyl-2-(4-phenoxyphenoxy)ethoxy]pyridine)

Contains 0.86 pound ai per gallon.

Contains aromatic petroleum distillates.

**KEEP OUT OF REACH OF CHILDREN**

## CAUTION

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

EPA Reg. No.: 91234-58

EPA Est. No.:

Net Contents:

**Manufactured For:**

Atticus, LLC

940 NW Cary Parkway, Suite 200

Cary, NC 27513

Contains pyriproxyfen, the active ingredients used in [Distance® IGR] [Knack®] [and] [Esteem® 0.86 EC].
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[A118.01] is not manufactured, or distributed by Valent U.S.A. Corporation, seller of [Distance® IGR] [Knack®] [and] [Esteem® 0.86 EC].
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## {LANGUAGE INSIDE BOOKLET}

<b>FIRST AID</b>	
<b>If on skin:</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>
<b>If in eyes:</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If swallowed:</b>	<ul style="list-style-type: none"> <li>• Immediately call a poison control center or doctor.</li> <li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>• Do not give any liquid to the person.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
<b>If inhaled:</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>
<b>HOT LINE NUMBER</b>	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For emergency medical assistance, call SafetyCall: <b>1-844-685-9173</b> . For additional information on this pesticide product (including pesticide incidents), you may call CHEMTREC® at <b>1-800-424-9300</b> , 24 hours per day, 7 days per week.	
<b>NOTE TO PHYSICIAN</b>	
If ingested, probable mucosal damage may contraindicate the use of gastric lavage. This product contains a light hydrocarbon liquid; ingestion or subsequent vomiting can result in aspiration of this product, which can cause pneumonitis.	

## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

#### CAUTION

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

#### **PERSONAL PROTECTIVE EQUIPMENT (PPE):**

##### **Applicators and other handlers must wear:**

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

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



## **USER SAFETY RECOMMENDATIONS**

### **Users should:**

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

## **ENVIRONMENTAL HAZARDS**

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

## **DIRECTIONS FOR USE**

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

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

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

## **AGRICULTURAL USE REQUIREMENTS**

Use this product only in accordance with its labeling and with the Worker Protection Standard (WPS), 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about Personal Protective Equipment (PPE), and Restricted-Entry Interval (REI). The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard (WPS).

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

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

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

## **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 allowed by 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, **A118.01** contains a Group 7 insecticide. Any insect population may contain individuals naturally resistant to **A118.01** and other Group 7 insecticides. The resistant individuals may dominate the insect population if this group of insecticides are used repeatedly in the same fields. Appropriate resistance management strategies should be followed.

To delay insecticide resistance, take the following steps:

- Rotate the use of **A118.01** or other Group 7 insecticides within a growing season, or among growing seasons, with different groups that control the same pests. Avoid application of more than the maximum seasonal use rate or the total number of consecutive sprays of **A118.01** 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):
  - Individual insecticides selected for use in mixtures should be highly effective and be applied at the rates at which they are individually registered for use against the target species.
  - Mixtures with components having the same IRAC mode of action classification are not recommended for insect resistance management.
  - When using mixtures, consider any known cross-resistance issues between the individual components for the targeted pest(s).
  - Mixtures become less effective if resistance is already developing to one or both active ingredients, but they may still provide pest management benefits.
  - The insect resistance management benefits of an insecticide mixture are greatest if the two components have similar periods of residual insecticidal activity. Mixtures of insecticides with unequal periods of residual insecticide activity may offer an insect resistance management benefit only for the period where both insecticides are active.
- Adopt an integrated pest management program for insecticide use that includes scouting, uses historical information related to pesticide use, crop rotation, record keeping, and which considers cultural, biological and other chemical control practices.
- Monitor after application for unexpected target pest survival. If the level of survival suggests the presence of resistance, consult with your local university specialist or certified pest control advisor.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance management and/or IPM recommendations for the specific site and pest problems in your area.

### SPRAY DRIFT

#### Aerial Applications

- Do not release spray at a height greater than 10 feet above the vegetative canopy, unless a greater application height is necessary for pilot safety.

- Applicators are required to use a fine or coarser droplet size (ASABE S572.1), except for when applying ultra-low volume applications.
- Applicators must use ½ swath displacement upwind at the downwind edge of the field.
- Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- Do not apply when wind speeds exceed 15 miles per hour at the application site.
- If the windspeed is greater than 10 mph, the boom length must be 65% or less of the wingspan for fixed wing aircraft and 75% or less of the rotor diameter for helicopters. Otherwise, the boom length must be 75% or less of the wingspan for fixed-wing aircraft and 90% or less of the rotor diameter for helicopters.
- Do not apply during temperature inversions.

#### **Airblast Applications**

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

#### **Groundboom Applications**

- User must only apply with the nozzle height recommended by the manufacturer, but no more than 4 feet above the ground or crop canopy.
- Applicators are required to use a fine or coarser droplet size (ASABE S572.1).
- Do not apply when wind speeds exceed 15 miles per hour at the application site.
- Do not apply during temperature inversions.

## **SPRAY DRIFT ADVISORIES**

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

### **IMPORTANCE OF DROPLET SIZE**

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

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

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

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

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

#### **BOOM HEIGHT – Ground Boom**

For ground equipment, the boom should remain level with the crop and have minimal bounce.

#### **RELEASE HEIGHT – Aircraft**

Higher release heights increase the potential for spray drift.

#### **SHIELDED SPRAYERS**

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

#### **TEMPERATURE AND HUMIDITY**

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

#### **TEMPERATURE INVERSIONS**

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

#### **WIND**

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

### **PRODUCT INFORMATION**

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.

**A118.01** affects all pest insect life stages, including eggs, nymphs/larvae, pupae and adults. **A118.01** does not control adults, but greatly reduces their production of viable eggs due to its strong transovarial activity. In whitefly, transovarial activity begins within one day after adults contact or ingest **A118.01** residues. **A118.01** is also ovicidal and inhibits metamorphosis of nymphs, larvae and pupae into adults. Since **A118.01** 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.

**A118.01** also has strong translaminar activity on a variety of ornamental plants, including poinsettia, hibiscus, gerbera, daisy, and chrysanthemums. **A118.01** 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., whitefly). Therefore, even in cases where it is difficult to achieve thorough under leaf spray coverage, **A118.01** can still provide highly effective control.

**A118.01 is intended for use in Integrated Pest Management (IPM) or Insect Resistance Management (IRM) programs. A118.01 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 TOLERANCE IMPORTANT**

The large number of existing ornamental varieties and cultivars coupled with the constant introduction of new varieties makes it impossible to field test **A118.01** 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 **A118.01** 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 **A118.01** 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 **A118.01**. Continue agitation while adding the remainder of the water. Begin application of the spray solution after **A118.01** has been added and completely dispersed into the mix water. Maintain agitation until all of the mixture has been applied.

## CONVERSION CHART

Gallons of Mixture*									
Rate/100 Gals		Rate/50 Gals		Rate/25 Gals		Rate/10 Gals		Rate/5 Gals	
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 gals.

## COMPATIBILITY

**A118.01** is compatible with most commonly used insecticides, fungicides and spray adjuvants used in the production of ornamental plants. When using **A118.01** 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

**A118.01** has been evaluated and shown to be effective for foliar applications when applied through Electrostatic Spraying Systems, PulsFOG® Systems or other low volume systems. To calculate the amount of product to be applied, use the appropriate amount of **A118.01** 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 **A118.01** 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 **A118.01** through any type of irrigation system when applying for control of foliar insects. **A118.01** 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.
6. 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.
8. Prepare a minimum mixture of 1 gal of water with the desired rate of **A118.01** 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 **A118.01** in suspension.
9. Meter into irrigation water during the beginning of the irrigation cycle. It is important to continue running the system after the **A118.01** 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.
6. 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	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 gals	<b>Foliar Spray</b> 100 gals 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.
Mealybugs (suppression) Scale including	8 to 12 fl oz/ 100 gals	<b>Foliar Spray</b> 100 gals of spray mix will	Apply the spray mixture uniformly to all plant surfaces and to the point of runoff.

Black Scale California Red Scale Euonymus Scale False Oleander Scale[*] Florida Wax Scale Pine Needle Scale[*] San Jose Scale Snow Scale Spotted Tentiform Leafminer		treat 20,000 sq ft of area	Target crawler stage when treating infestations of scale.
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[\*Not For Use in California]

**NOTE:** Since ornamental varieties are numerous, constantly changing, and may react differently to **A118.01** and tank mixtures including **A118.01**, 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 **A118.01** not be used on these plants. **Restriction:** DO NOT APPLY TO POINSETTIA AFTER BRACT FORMATION.

**Table 2. 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	INSTRUCTIONS
Fungus Gnats Shore Flies	3 to 6 fl oz /100 gals	<b><u>Sprenc</u></b> 100 gals 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 (sprenc) through conventional equipment to all insect infested surfaces or where insects may breed. Complete coverage of infested areas is essential for control. For optimal control, treat breeding areas under benches at the same time that the crop is treated. For best results, apply when the soil is moist.  <b><u>Broadcast Application to Soil Surface</u></b> For bed, bench, and container grown plants, apply <b>A118.01</b> as a coarse spray or sprenc to the soil surface. Mix 3 to 6 fl ozs of <b>A118.01</b> in 100 gals of water and apply to the soil surface at a volume of 2 to 3 gals of final spray solution per 100 sq ft of area. If a second application of <b>A118.01</b> is needed, allow a minimum of 21 days between applications.
	2 fl oz/ 100 gals	<b><u>Drench</u></b> Saturate only the top 1" to 1.5" of soil	<b>Important:</b> For drench applications to Poinsettia, see special use instructions below.  For the control of fungus gnats and shore flies, apply to potting media as a drench application through conventional equipment. For optimal control, apply additional amounts of spray solution to



PESTS	RATES	APPLICATION METHOD	INSTRUCTIONS		
			breeding areas under benches at the same time that the crop is treated. For best results, apply when the soil is moist.		
			<b><u>Drench Application to Soil Surface of Individual Containers</u></b>		
			Mix 2 fl ozs of <b>A118.01</b> in 100 gals of water and evenly apply to surface of potting media to ensure uniform treatment. Apply 3 fl ozs of finished solution per 6-inch pot. Adjust volume accordingly for smaller or larger pots (see drench mixing chart below). <b>Do not 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 Diameter (inches)	Drench Volume (fl ozs/pot)	Rate/100 Gals (fl ozs)
			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)**

**NOTE:** Since ornamental varieties are numerous, constantly changing, and may react differently to **A118.01** and tank mixtures including **A118.01**, 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 **A118.01** 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 **A118.01**. 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. To minimize the risk of leaf malformation when drenching Poinsettia with **A118.01**:

**Restrictions:**

- Do not saturate the potting media with **A118.01** drench solution. Apply only enough solution to saturate the top 1" – 1.5" of media (ex., No more than 3 ozs solution per 6" pot). Do not mix more than 2 ozs of **A118.01** 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 **A118.01**. If leaf malformation is noted, thoroughly

<p>water affected plants and, if necessary, move these plants to an area of the greenhouse with higher humidity.</p> <ul style="list-style-type: none"> <li>Do not drench individual Poinsettia with <b>A118.01</b> more than one time per crop cycle.</li> <li>DO NOT APPLY TO POINSETTIA AFTER BRACT FORMATION.</li> </ul>
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**Table 3. Directions for Use on Indoor Grown Fruiting Vegetables**

PESTS	RATES	APPLICATION METHOD	INSTRUCTIONS
<p>Aphids (suppression) Western Flower Thrips (suppression)</p> <p>Whiteflies including Greenhouse Whitefly Silverleaf Whitefly Sweetpotato Whitefly</p>	6 fl oz/ 100 gals	<p><b>Foliar Spray</b> 100 gals of spray mix will treat 20,000 sq ft of area.</p>	<p>Apply the spray mixture uniformly to all plant surfaces and to the point of runoff.</p> <p>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. 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.</p>
<p>Fungus Gnats Shore Flies</p>	3 to 6 fl oz /100 gals	<p><b>Sprench</b> 100 gals of spray mix will treat 5,000 sq ft of area.</p>	<p>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 optimal 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.</p> <p><b>Broadcast Application to Soil Surface</b> For bed, bench, and container grown plants, apply <b>A118.01</b> as a coarse spray or sprench to the soil surface. Mix 3 to 6 fl ozs of <b>A118.01</b> in 100 gals of water and apply to the soil surface at a volume of 2 to 3 gals of final spray solution per 100 sq ft of area. If a second application of <b>A118.01</b> 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.</p>
<p>Fungus Gnats Shore Flies</p>	2 fl oz/ 100 gals	<p><b>Drench</b> Saturate only the top 1" to 1.5" of soil.</p>	<p>For the control of fungus gnats and shore flies, apply to potting media as a drench application through conventional equipment. For optimal control, apply additional amounts of spray solution to breeding areas under benches at the same time that the crop is treated. The</p>

PESTS	RATES	APPLICATION METHOD	INSTRUCTIONS		
			soil surface should be moist at the time of application.		
			<b><u>Drench Application to Soil Surface of Individual Containers</u></b>		
			Mix 2 fl ozs of <b>A118.01</b> in 100 gals of water and evenly apply to surface of potting media to ensure uniform treatment. Apply 3 fl ozs of finished solution per 6-inch pot. Adjust volume accordingly for smaller or larger pots (see drench mixing chart below). <b>Do not 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 Diameter (inches)	Drench Volume (fl ozs/pot)	Rate/100 Gals (fl ozs)
			4	1	2
			5	2	2
			6	3	2
			8	5	2
10	7	2			
12	10	2			
<b>NOTE:</b> Since fruiting vegetable varieties are numerous, constantly changing and may react differently to <b>A118.01</b> and tank mixtures including <b>A118.01</b> , test the product(s) on a small scale before making large-scale applications.					
<b>Restrictions:</b>					
<ul style="list-style-type: none"><li>• Do not apply to tomato varieties less than 1 inch in diameter.</li><li>• Do not apply to non-bell peppers.</li><li>• Do not apply within one (1) day of harvest.</li><li>• Do not make more than two (2) <b>A118.01</b> applications per season.</li><li>• Do not exceed 13 fl. ozs of <b>A118.01</b> per acre per application.</li><li>• Regardless of formulation, do not apply more than 0.176 lb ai of pyriproxyfen per acre per season.</li></ul>					

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

PESTS	RATES	APPLICATION METHOD	INSTRUCTIONS
<p>Aphids (suppression) [*] Western Flower Thrips (suppression) [*]</p> <p>Whiteflies including Greenhouse Whitefly[*] Silverleaf Whitefly[*] Sweetpotato Whitefly[*]</p>	6 fl oz/ 100 gals	<p><b><u>Foliar Spray</u></b></p> <p>100 gals of spray mix will treat 20,000 sq ft of area</p>	<p>Apply the spray mixture uniformly to all plant surfaces and to the point of runoff.</p> <p>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</p>

PESTS	RATES	APPLICATION METHOD	INSTRUCTIONS
			(Insect Growth Regulator) with another mode of action of another chemical class of insecticide. 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 gals	<b><u>Sprenc</u></b> 100 gals of spray mix will treat 5,000 sq ft of area	<p>For the control of fungus gnats and shore flies, apply to potting media as a heavy coarse spray (sprenc) through conventional equipment to all insect infested surfaces or where insects may breed. Complete coverage of infested areas is essential for control. For optimal control, treat breeding areas under benches at the same time that the crop is treated. For best results, apply when the soil is moist.</p> <p><b><u>Broadcast Application to Soil Surface</u></b> For bed, bench, and container grown plants, apply <b>A118.01</b> as a coarse spray or sprenc to the soil surface. Mix 3 to 6 fl oz of <b>A118.01</b> in 100 gals of water and apply to the soil surface at a volume of 2 to 3 gals of final spray solution per 100 sq ft of area. If a second application of <b>A118.01</b> 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.</p>
	2 fl oz/ 100 gals	<b><u>Drench</u></b> Saturate only the top 1" to 1.5" of soil	<p>For the control of fungus gnats and shore flies, apply to potting media as a drench application through conventional equipment. For optimal control, apply additional amounts of spray solution to breeding areas under benches at the same time that the crop is treated. For best results, apply when the soil is moist.</p> <p><b><u>Drench Application to Soil Surface of Individual Containers</u></b> Mix 2 fl oz of <b>A118.01</b> in 100 gals 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 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.</p>

PESTS	RATES	APPLICATION METHOD	INSTRUCTIONS		
			Pot Diameter (inches)	Drench Volume (fl oz/pot)	Rate/100 Gals (fl oz)
			4	1	2
			5	2	2
			6	3	2
			8	5	2
			10	7	2
			12	10	2
[*Not For Use in California]					
<p><b>Note:</b> Since herb varieties are numerous, constantly changing and may react differently to <b>A118.01</b> and tank mixtures including <b>A118.01</b>, test the product(s) on a small scale before making large-scale applications.</p>					
<p><b>Restrictions:</b></p> <ul style="list-style-type: none"><li>• Do not apply within one (1) day of harvest.</li><li>• Do not make more than two (2) <b>A118.01</b> applications per season.</li><li>• Do not exceed 13 fl oz <b>A118.01</b> per acre per application.</li><li>• Regardless of formulation, do not apply more than 0.176 lb ai of pyriproxyfen per acre per season.</li></ul>					

## 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  $\leq$  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  $\frac{1}{4}$  full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. 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  $\frac{1}{4}$  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. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available or 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

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. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials, resistant strains or other influencing factors in the use of the product, which are beyond the control of Atticus, 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 Atticus, LLC and Seller harmless for any claims relating to such factors.

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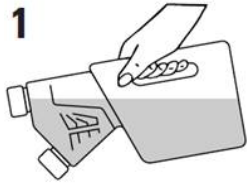
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**A118.01**  
**EPA Reg. No. 91234-58**

**Graphic Diagrams for use with Tip and Pour Packaging**



**Measure**



**Check**



**Adjust**



**Pour**