

# ARVIDA<sup>®</sup>

## 30 SG INSECTICIDE



Contains acetamiprid, the active ingredient used in Assail<sup>®</sup> 30 SG Insecticide.

### FOR AGRICULTURAL USE ONLY

<b>ACTIVE INGREDIENT:</b>	(% by weight)
Acetamiprid, (E)-N <sup>1</sup> -[(6-chloro-3-pyridyl)methyl]-N <sup>2</sup> -cyano-N <sup>1</sup> -methyl acetamidine.....	30.0%
<b>OTHER INGREDIENTS:</b> .....	70.0%
<b>TOTAL</b> .....	100.0%

EPA Reg. No.: 91234-14

## KEEP OUT OF REACH OF CHILDREN CAUTION

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

See below for additional Precautionary Statements.

FIRST AID	
<b>If swallowed:</b>	<ul style="list-style-type: none"> <li>• Immediately call a poison control center or doctor for treatment advice.</li> <li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
<b>If on skin or clothing:</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 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.</li> <li>• Call a poison control center or doctor for treatment advice.</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 mouth-to-mouth, if possible.</li> <li>• Call a poison control center or doctor for 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. You may also contact <b>1-844-685-9173</b> for emergency medical treatment information.	
<b>NOTE TO PHYSICIAN:</b> There is no specific antidote. All treatment should be based on observed signs and symptoms of distress in the patient.	

**For Chemical Emergency: Spill, Leak, Fire, Exposure, or Accident,**

**Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 or +1 703-527-3887 (collect calls accepted)**

ArVida<sup>®</sup> 30 SG Insecticide is not manufactured, or distributed by United Phosphorus, Inc., seller of Assail<sup>®</sup> 30 SG Insecticide.

**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS AND DOMESTIC ANIMALS  
CAUTION**

Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Avoid contact with eyes, skin or clothing. Harmful if inhaled. Avoid breathing vapors or spray mist.

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

Mixers, loaders, applicators, and other handlers must wear long-sleeved shirts, long pants, shoes plus socks, protective eyewear, chemical resistant gloves made out of the following: waterproof material nitrile rubber  $\geq$  14 mils, neoprene rubber  $\geq$  14 mils, barrier laminate  $\geq$  14 mils, polyvinyl chloride (PVC)  $\geq$  14 mils, or viton  $\geq$  14 mils and chemical resistant headgear for overhead exposure.

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 there are no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

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

**USER SAFETY RECOMMENDATIONS**

**Users should:**

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

**PHYSICAL OR CHEMICAL HAZARDS**

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

**ENVIRONMENTAL HAZARDS**

This product is toxic to birds and aquatic invertebrates. This product is toxic to bees exposed to direct treatment. Do not apply this product while bees are foraging in the treatment area. Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate. Do not contaminate water used for irrigation or domestic purposes.

**Ground Water Advisory**

This chemical has properties and characteristics associated with chemicals detected in ground water. This chemical may leach into ground water if used in areas where soils are permeable, particularly where the water table is shallow.

**Surface Water Advisory**

This product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having high potential for reaching surface water via runoff for several months or more after application. Avoid accidental or intentional application of this product to ditches, swales, drainage ways or impervious surfaces such as driveways. Runoff of this product to surface water will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours.

**DIRECTIONS FOR USE**

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

**Read entire label before using this product.**

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

**AGRICULTURAL USE REQUIREMENTS**

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

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

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is coveralls, waterproof gloves made out of the following: waterproof material nitrile rubber  $\geq$  14 mils, neoprene rubber  $\geq$  14 mils, barrier laminate  $\geq$  14 mils, polyvinyl chloride (PVC)  $\geq$  14 mils, or viton  $\geq$  14 mils, and shoes plus socks.

**SPRAY DRIFT**

Avoid spray drift. Do not apply when weather conditions may cause drift. Do not allow this product to drift on to non-target areas. To avoid spray drift, DO NOT apply aerially when wind speed is greater than 10 mph or during periods of temperature inversions. For aerial application, select nozzles and pressure that deliver **MEDIUM** spray droplets as indicated in nozzle manufacturer's catalogs and in accordance with ASAE Standard S-572. **AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR.**

The interaction of many equipment- and weather-related factors determines the potential for spray drift. The applicator is responsible for considering all of these factors when making decisions.

The following drift management requirements must be followed to avoid off-target movement from aerial applications to agricultural crops. These requirements do not apply to forestry application, public health uses or to application using dry formulations.

1. The distance of the outer most nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
2. Use the largest droplet size consistent with good pest control. Small droplets are more prone to spray drift and can be minimized by appropriate nozzle selection, by orienting nozzles away from the airstream as much as possible, and by avoiding excessive spray boom pressure.

Where states have more stringent regulations, they should be observed.

The applicator should be familiar with and consider the information covered in the Aerial Drift Reduction Advisory below:

**AERIAL DRIFT REDUCTION ADVISORY**

This section is advisory in nature and does not supersede the mandatory label requirements.

**INFORMATION ON DROPLET SIZE**

The most effective way to reduce drift potential is to apply **MEDIUM** droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control.

Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (See Wind, Temperature and Humidity, and Temperature Inversions).



## CONTROLLING DROPLET SIZE

**Volume** – Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.

**Pressure** – Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.

**Number of Nozzles** – Use the minimum number of nozzles that provide uniform coverage.

**Nozzle Orientation** – Small droplets are more prone to spray drift and can be minimized by several factors including orienting nozzles away from the airstream. Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations. Significant deflection from horizontal will reduce droplet size and increase drift potential.

**Nozzle Type** – Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

## BOOM LENGTH

For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.

## APPLICATION HEIGHT

Applications should not be made at a height greater than 10 feet above the top of the target plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

## SWATH ADJUSTMENT

When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator should compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller drops, etc.).

## WIND

Drift potential is lowest between wind speeds of 2 – 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. **IMPORTANT:** Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

## TEMPERATURE AND HUMIDITY

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

## TEMPERATURE INVERSIONS

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified 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.

## SENSITIVE AREAS

The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g. when wind is blowing away from the sensitive areas). Do not cultivate or plant crops within 10 feet of aquatic areas as to allow growth of a vegetative filter strip.

## DIRECTIONS FOR CHEMIGATION

### Instructions

**For chemigation use only on cranberries and on potatoes after foliage has emerged and only through overhead sprinkler irrigation systems.**

Apply this product only through the following overhead sprinkler irrigation systems: center pivot, lateral move, side (wheel) roll, solid set, or hand move irrigation systems after potato foliage has emerged. Do not apply this product through any other type of irrigation system. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts. A person knowledgeable of the chemigation system and responsible for its operation or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

The overhead sprinkler chemigation system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from back flow. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump. 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. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed for materials that are compatible with pesticides and capable of being fitted with a system interlock.

Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place. Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, back flow 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 system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the flow 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. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection. The pesticide injection pipeline must 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. 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 pesticide distribution is adversely affected. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Do not apply when wind speed favors drift beyond the area intended for treatment.

### Application Instructions

Follow instructions for system requirements in the Direction for Chemigation section above. This product is only to be applied through systems with anti-siphon valves, check valves, and interlocking controls between the metering device and the water pump to guarantee synchronized shut-off. Such systems are designed and intended to prevent water source contamination or overflow of the mix tank. Be sure to maintain constant agitation in the solution tank before and during the application to assure an even suspension. Better accuracy in calibration and distribution is achieved by injecting a greater volume of a more dilute suspension per unit time. Efficacy may be reduced if this product is applied using more than the specified volume of irrigation water per acre. Do not apply when wind speed favors drift beyond the area intended



for treatment. Do not apply when the irrigation system has leaky fittings or connections, when spray nozzles cannot provide even distribution, or when irrigation lines used in applying the product have to be dismantled and drained instead of flushed. In a center pivot system, prevent spray application at the pivot unit by blocking the adjacent nozzle set. Due to their non-uniform distribution, do not use end guns when chemigating. Improper insect control may result where sprinkler distribution patterns are not sufficiently overlapping. Upon completion of the treatment, continue to run irrigation water until all the remaining pesticide has been cleared through the lines. This product may be applied in combination with liquid fertilizers which are chemically neutral. Do not apply this product in combination with highly alkaline fertilizers (e.g., aqueous ammonia) as this can cause this product to degrade resulting in decreased efficacy.

#### **Spray Preparation**

Prior to application, flush the injector system and chemical tank with clean water until thoroughly cleaned including removal of scale, pesticide residues, and other foreign matter. Use a mix tank to prepare a solution of this product. Fill the tank with 1/2 or 3/4 the total amount of water to be used. Start agitation and slowly add the required amount of this product followed by the remaining volume of water.

#### **Sprinkler Irrigation**

Follow instructions for system requirements in the Direction for Chemigation section above. Set sprinkler systems such that maximum water delivery is 0.2 inch per acre. Higher volumes of water may reduce product performance. Begin sprinkler and then evenly inject the solution into the irrigation water line to distribute the specified rate per acre. To mix, inject this product using a positive displacement pump into the main line before a right angle turn. Optimal insecticidal activity is achieved only when this product is retained on foliage. Do not apply when wind speed favors drift beyond the area intended for treatment. Improper insect control may result where sprinkler distribution patterns are not sufficiently overlapping.

### **DIRECTIONS FOR AERIAL OR GROUND SPRAY APPLICATION**

#### **APPLICATION TIMING**

Begin application when treatment thresholds for insect populations are reached. Obtain additional information about recognized economic threshold levels from the Cooperative Extension Service, professional consultants, or other qualified authorities.

#### **INFORMATION**

This product is a 30% soluble granule intended to control sucking and chewing insects for the listed crops on this label. Acetamiprid, the active ingredient in this product, is a neonicotinoid insecticide which acts through contact and ingestion to control target insects. This product rapidly absorbs into the plant tissue and immediately moves via systemic translaminar activity, providing protection to the entire leaf. However, for optimal control, thorough spray coverage is essential. After this product's spray solution has dried, it remains effective following rain or irrigation (rainfast).

#### **MIXING INSTRUCTIONS**

##### **Mixing and Application Instructions for ArVida 30 SG Insecticide**

This product readily disperses in water to form a spray mixture, to be applied via ground or air.

1. Prepare only the amount of spray mixture needed for that day's application.
2. Fill the tank 1/4 - 1/2 full with the total amount of water to be used.
3. Start agitation in the tank and add the required amount of this product. Shake the jug to fluff the product prior to measuring. Refrain from tamping down the product when using the measuring cone because the cone is calibrated to the fluffed product.
4. Direct a stream of water onto any floating product as the tank is being filled to assist in mixing.
5. Mix in tank for 2 minutes or until a thorough mixture is achieved prior to applying.
6. Maintain constant agitation in the solution tank before and during the application to assure an even suspension. Agitate the mixture before use for 10 minutes if the solution sits stationary for an extended period of time.
7. Equip the spray system with a 50-mesh inline filter. This will protect typically-used nozzles. Spray nozzles may also be equipped with nozzle filters (50-mesh) or slotted nozzle filters (25- to 50-mesh equivalent).
8. This product is unstable in water with a low pH (below 4) or high pH (above 9). Buffer water to attain an optimal pH range.

##### **Special Instructions for Tank Mixing ArVida 30 SG Insecticide**

When tank mixing this product with other products, add them in the following sequence:

- (1) Water soluble packets
- (2) Wettable powders
- (3) Water dispersible granules (e.g., ArVida 30 SG Insecticide)
- (4) Flowing liquids
- (5) Emulsifiable concentrates
- (6) Adjuvants and/or oils (do not use stickers)

Following the addition of each product above, be sure to let full dispersion occur before adding the next product in the sequence. Boron containing products will negatively affect the film solubility of water soluble packets. Therefore, if boron products are to be added to the spray tank mix add the soluble packets first and wait until they are dissolved before adding any boron products.

#### **COMPATIBILITY/TANK MIXING**

This product is compatible with a variety of common spray products, when diluted with equal parts water. However, all potential compatibilities based on local considerations are unknown. To ensure the compatibility of this product with other spray products, conduct a jar test prior to tank mixing. Conduct a jar test with equal parts water and this product and mixed thoroughly with added spray product or other pesticide. USE SPRAY MIXTURES DIRECTLY AFTER MIXING WITH SUFFICIENT AGITATION. MIXTURES THAT CURDLE, GREASE, OR PRECIPITATE ARE NOT TO BE USED.

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.

### **APPLICATION INSTRUCTIONS**

#### **ROW CROPS**

Unless otherwise specified in the crop specific directions, apply this product by air at a minimum finished spray volume of 5 gallons per acre or by ground at a minimum finished spray volume of 15 gallons per acre. It is important that equipment be calibrated and adjusted so as to create uniform and thorough spray coverage of the crop. Use nozzle and pressure combinations that distribute MEDIUM spray droplets (see nozzle manufacturer's catalogs and ASAE Standard S-572) when applying this product by air.

To increase plant uptake, spray coverage, and enhance pest control, use this product with a spray adjuvant, especially in listed vegetable crops (except legumes) and cotton (when controlling whiteflies). Recommended spray adjuvants include high quality non-ionic surfactants, methylated seed oils, or silicone surfactants. Not all adjuvants are safe for the target crop and must be chosen carefully to avoid adverse effects such as burn to foliage or fruit or spotting. See crop specific directions for adjuvant addition recommendations and refer to adjuvant directions for use. Additional information may be obtained from your local Crop Advisor, Extension Service representative, or a representative from Atticus, LLC. For dense foliage or heavy infestations, use the higher listed rates. Do not add a sticker in the spray mixture. Specific residual control length depends on many factors including level of insect infestation, dosage rate, plant growth, and environmental factors. If applying through foliar banded application, the amount of product per acre is determined by band width divided by row width then multiplied by the appropriate broadcast rate.

When spraying is completed, rinse sprayer with clean water and dispose of the rinsate by applying to an area that has already been treated or dispose of according to the STORAGE AND DISPOSAL section.



**ORCHARD AND VINE CROPS (excluding grapes)**

For optimal pest control, it is important that equipment be calibrated and adjusted so as to create uniform and thorough crop coverage. To achieve thorough coverage throughout the tree or vine canopy, it is important to choose an appropriate finished spray volume for the size of the tree or vine. See crop specific directions for particular pests. Use nozzle and pressure combinations that distribute MEDIUM spray droplets (see nozzle manufacturer’s catalogs and ASAE Standard S-572) when applying this product by air. Coverage by aerial applications may not be as thorough as ground applications.

To increase plant uptake, spray coverage, and enhance pest control, use this product with a spray adjuvant, especially in pome fruit (when controlling codling moth, oriental fruit moth, and San Jose scale). Recommended spray adjuvants include high quality non-ionic surfactants, methylated seed oils, or horticultural oils. Not all adjuvants are safe for the target crop and must be chosen carefully to avoid adverse effects such as burn to foliage or fruit or spotting. See crop specific directions for adjuvant addition recommendations and refer to adjuvant directions for use. Do not add a sticker in the spray mixture. Additional information may be obtained from your local Crop Advisor, Extension Service representative, or a representative from Atticus, LLC.

For dense foliage or heavy infestations, use the higher listed rates. Specific residual control length depends on many factors including level of insect infestation, dosage rate, plant growth, and environmental factors.

When spraying is completed, rinse sprayer with clean water and dispose of the rinsate by applying to an area that has already been treated or dispose of according to the STORAGE AND DISPOSAL section.

**INTEGRATED PEST MANAGEMENT (IPM) USE OF THIS PRODUCT**

This product can offer substantial benefits to producers using IPM programs. This product has adulticidal, larvicidal, and ovicidal activity against many pests. This product can be effectively utilized in IPM programs to control important pests combined with maintenance of beneficial insects and spiders.

**RESISTANCE MANAGEMENT**

This product has acetamiprid as its active ingredient and is a Group 4A neonicotinoid, a class of insecticides. Resistance can develop if products that have the same mode of action are applied repeatedly. The use of this product should follow resistance management procedures in your area. The local resistance management practices and strategies of your agricultural advisor, extension personnel, university, or professional crop advisor should be consulted in order to minimize the likelihood of resistance development in pests. These strategies may include limiting the number of consecutive applications of this product to two before rotating applications with insecticides that have different modes of action. Avoid foliar application of this product on crops treated with a Group 4A insecticide seed treatment or soil-applied application if a non-Group 4A insecticide has not been applied between these applications. Avoid applications below the minimum rate listed for each crop/pest combination as this can enhance resistance development. For best results, your pest management system should use the practices recommended for IPM.

Do NOT apply this product to labeled crops if grown in a greenhouse in order to prevent the development of insect resistance.

**RATE CONVERSION CHART FOR ALL OF THE FOLLOWING CROP USE DIRECTIONS**

Pounds A.I. Per Acre	Ounces of This Product Per Acre	Treated Acres per 32 oz. Package
0.028	1.5	21.3
0.038	2.0	16.0
0.047	2.5	12.8
0.056	3.0	10.7
0.075	4.0	8.0
0.094	5.0	6.4
0.100	5.3	6.0
0.103	5.5	5.8
0.130	7.0	4.6
0.150	8.0	4.0
0.250	13.3	2.4



## ASPARAGUS

Apply this product by air at a minimum finished spray volume of 5 gallons per acre or by ground at a minimum finished spray volume of 20 gallons per acre. For optimal control, thorough spray coverage is essential.

### SPECIFIC INSTRUCTIONS

PEST	APPLICATION USE RATE	USE INSTRUCTIONS
<b>Asparagus Thrips Japanese Beetle Tarnished Plant Bug Asparagus Miner (suppression)</b>	Apply 5.3 ounces (0.100 pounds active ingredient) of this product per acre.	For control of Japanese Beetle and Tarnished Plant Bug, make foliar applications following the cutting season. For control of Asparagus Miner, make applications to adults prior to egg laying.
<b>Leafhoppers</b>	Apply 2.5-4.0 ounces (0.047-0.075 pounds active ingredient) of this product per acre.	
<b>Asparagus Aphids Asparagus Beetle Spotted Asparagus Beetle</b>	Apply 2.5-5.3 ounces (0.047-0.100 pounds active ingredient) of this product per acre.	For Asparagus Aphids, make applications to new and young plantings. For control of Asparagus Beetle and Spotted Asparagus Beetle, take samples early and continue sampling regularly throughout the season.

**USE RESTRICTIONS**

- Maximum applications: 2 per calendar year.
- Do NOT apply more than once every 10 days.
- Pre-Harvest Interval (PHI) = 1 day
- Do NOT apply more than 10.7 ounces (0.2 pound active ingredient) per acre per calendar year regardless of application method.

## BLUEBERRIES AND OTHER BUSH AND CANEBERRIES (within Crop Subgroups 13-07A and B) – Aronia Berry; Blackberry; Blueberry, highbush and lowbush; Buffalo Currant; Chilean Guava; Currant, red and black; Elderberry; European Barberry; Gooseberry; Cranberry, Highbush; Honeysuckle, edible; Huckleberry; Jostaberry; Juneberry; Lingonberry; Loganberry; Native Currant; Raspberry, black and red; Salal; Sea Buckthorn; Wild Raspberry; and cultivars, varieties and/or hybrids of these

Apply this product by air at a minimum finished spray volume of 5 gallons per acre or by ground at a minimum finished spray volume of 20 gallons per acre. For optimal pest control, thorough crop coverage is essential. Use the higher rate in the range when you are unsure of the susceptibility of the aphid or thrips species or when the aphid or thrips species is unknown.

### SPECIFIC INSTRUCTIONS

PEST	APPLICATION USE RATE	USE INSTRUCTIONS
<b>Aphids Leafhoppers</b>	Apply 2.5-5.3 ounces (0.047-0.100 pounds active ingredient) of this product per acre.	Use the higher rate in the range when you are unsure of the susceptibility of the aphid species or when the aphid species is unknown.
<b>Whitefly</b>	Apply 4.0-5.3 ounces (0.075-0.100 pounds active ingredient) of this product per acre.	
<b>Japanese Beetle, Blueberry Maggot, Sap Beetles, Tarnished Plant Bug, Strawberry Rootworm, Cherry Fruitworm, Cranberry Fruitworm, Flea Beetle, Spanworm, Thrips, Blueberry Gall Midge, Western Raspberry Fruit Worm (adult)</b>	Apply 4.5-5.3 ounces (0.085-0.100 pounds active ingredient) of this product per acre.	Use the higher rate in the range when you are unsure of the susceptibility of the thrips species or when the thrips species is unknown.

**USE RESTRICTIONS**

- Maximum applications: 5 per calendar year.
- Do NOT apply more than once every 7 days.
- Pre-Harvest Interval (PHI) = 1 day
- Do NOT apply more than 26.7 ounces (0.5 pounds active ingredient) per acre per calendar year regardless of application method.

## CELTUCE, FLORENCE FENNEL

Apply in a minimum finished spray volume of 5 gallons per acre by air or 20 gallons per acre by ground.

### SPECIFIC INSTRUCTIONS

PEST	APPLICATION USE RATE	USE INSTRUCTIONS
<b>Aphids</b>	Apply 2.0 – 4.0 ounces (0.038 – 0.075 pounds active ingredient) of this product per acre.	Aphid species may differ in susceptibility to this product. If you are unsure of the aphid species present or if there are difficult-to-control species such as lettuce aphid, red aphid, foxglove aphid, etc., use the maximum rate within the listed rate range. Begin applications when treatment thresholds have been reached. Thorough coverage is important to obtain optimum control.
<b>Whitefly; Sweet Potato, Silver Leaf, Greenhouse (for field use only)</b>	Apply 3.0 – 4.0 ounces (0.056 – 0.075 pounds active ingredient) of this product per acre.	Begin applications when whitefly adults appear prior to development of nymphs. Do not wait until heavy populations have become established. Use of an adjuvant is recommended to improve coverage and control. Use the high rates within the listed rate range under heavy pressure. Whiteflies have shown a tendency to develop resistance. For resistance management purposes, alternating applications of different chemical classes reduces the potential for resistance development.

**USE RESTRICTIONS**

- For any of the pests listed above, use the high rate within the listed rate range under heavy pest pressure.
- Do NOT make more than 5 applications per calendar year.
- Do NOT apply more than once every 7 days.
- Do NOT apply less than 7 days before harvest (PHI = 7 days).
- Do NOT apply more than 20 ounces (0.375 lbs. acetamiprid active ingredient) per acre per calendar year including any pre-transplant applications of acetamiprid
- Maximum pre-transplant application rate of acetamiprid is 0.15 lb ai/A
- There are no rotational crop plantback restrictions for this product.



**CITRUS (within Crop Group 10-10) – Calamondin; Citron; Citrus Hybrids; Grapefruit; Japanese Summer Grapefruit; Kumquat; Lemon; Lime, Australian Desert, Australian Finger, Australian Round, Brown River Finger, Mount White, Russell River, Sweet, Tahiti & New Guinea Wild; Mandarin, Mediterranean & Satsuma; Orange, Sour, Sweet, Tachibana & Trifoliolate; Pummelo; Tangelo; Tangor; Uniq Fruit; and cultivars, varieties and/or hybrids of these**

Apply this product to mature trees by air at a minimum finished spray volume of 20 gallons per acre or by ground at a minimum finished spray volume of 100 gallons per acre. For optimal pest control, use ground applications; thorough crop coverage is essential. Use the higher rate in the range when crop is under heavy pressure.

**SPECIFIC INSTRUCTIONS**

PEST	APPLICATION USE RATE	USE INSTRUCTIONS
<b>Aphids</b>	Apply 2.5-5.5 ounces (0.047-0.103 pounds active ingredient) of this product per acre.	Use the higher rate in the range when you are unsure of the susceptibility of the aphid species or when the aphid species is unknown.
<b>Citrus Thrips, Citrus Leafminer, Citrus Mealybug, Caribbean Black Scale, Glassy-winged Sharpshooter</b>	Apply 4.0-7.0 ounces (0.075-0.130 pounds active ingredient) of this product per acre.	Use the higher rate in the range when crop is under heavy pest pressure.
<b>Citricola Scale, Red Scale</b>	Apply 8.0-13.3 ounces (0.150-0.250 pounds active ingredient) of this product per acre.	Treat Citricola Scale in the spring and fall when crawlers are present. Addition of an approved horticultural oil will improve control. For scale on foliage and wood, adjust the spray volume based on tree size. 750 to 1,500 gallons per acre is the optimal volume for Red Scale control.
<b>Katydid</b>	Apply 6.0-10.0 ounces (0.110-0.190 pounds active ingredient) of this product per acre.	Apply when katydids first appear or at petal fall. Make a repeat application in 2 to 3 weeks.
<b>Asian Citrus Psyllid</b>	Apply 6.9-13.3 ounces (0.130-0.250 pounds active ingredient) of this product per acre.	Begin applications when pests first appear. Add a silicone-based adjuvant or horticultural oil to improve spray coverage and control. Scout groves regularly. Retreat as necessary not to exceed the maximum application rate per acre per calendar year.

**USE RESTRICTIONS**

- Maximum applications: 5 per calendar year.
- Do NOT apply more than once every 7 days.
- Pre-Harvest Interval (PHI) = 7 days
- Do NOT apply more than 29.3 ounces (0.55 pounds active ingredient) per acre per calendar year regardless of application method.

**CLOVER**

**For use only in Idaho, Oregon, and Washington**

Apply this product by air at a minimum finished spray volume of 5 gallons per acre or by ground at a minimum finished spray volume of 20 gallons per acre. For optimal pest control thorough crop coverage is essential. Use the higher rate in the range when crop is under heavy pressure.

**SPECIFIC INSTRUCTIONS**

PEST	APPLICATION USE RATE	USE INSTRUCTIONS
<b>Aphids, including Clover and Pea Aphid</b>	Apply 2.5-4.0 ounces (0.047-0.075 pounds active ingredient) of this product per acre.	Begin applications when treatment thresholds have been reached. Thorough coverage is important to obtain optimum control.

**USE RESTRICTIONS**

- Only for use in Idaho, Oregon, and Washington.
- Maximum applications: 1 per calendar year.
- Pre-Harvest Interval (PHI) = 30 days
- Do NOT apply more than 4.0 ounces product (0.075 lb. active ingredient) per acre per calendar year.



**BRASSICA HEAD AND STEM CROPS (within Crop Subgroup 5-16) – Broccoli; Brussels Sprouts; Cabbage; Cabbage, Chinese (Napa); Cauliflower and cultivars, varieties and hybrids of these commodities.**

Apply this product by air at a minimum finished spray volume of 5 gallons per acre or by ground at a minimum finished spray volume of 20 gallons per acre. For optimal pest control thorough crop coverage is essential. Use the higher rate in the range when crop is under heavy pressure.

**SPECIFIC INSTRUCTIONS**

PEST	APPLICATION USE RATE	USE INSTRUCTIONS
<b>Aphids</b>	Apply 2.0-4.0 ounces (0.038-0.075 pounds active ingredient) of this product per acre.	Use the higher rate in the range when you are unsure of the susceptibility of the aphid species or when the aphid species is unknown. Begin applications when treatment thresholds have been reached. Thorough coverage is important to obtain optimum control.
<b>Whitefly; Sweet Potato, Silver Leaf, and Greenhouse (field use only)</b>	Apply 2.5-4.0 ounces (0.047-0.075 pounds active ingredient) of this product per acre.	Begin applications when adult whiteflies first appear and before the development of nymphs. Apply prior to the establishment of heavy infestation. As long as pest infestation continues, make repeat applications a minimum of 7 days apart but do not apply more than 20.0 ounces (0.375 pounds active ingredient) per acre per calendar year of this product nor exceed 5 applications per calendar year. Add an adjuvant to improve spray coverage and control. The tendency for resistance development in whiteflies has been observed. To reduce the potential for resistance, rotate applications of this product with insecticides that have a different mode of action.
<b>Diamondback Moth (suppression)</b>	Apply 4.0 ounces (0.075 pound active ingredient) of this product per acre.	Begin applications when moths start to lay eggs. Make repeat applications as needed but do not apply more than 20.0 ounces (0.375 pounds active ingredient) per acre per calendar year of this product nor exceed 5 applications per calendar year. Use this product as a tool in a pest control program to manage resistance.
<b>Thrips</b>	Apply 4.0 ounces (0.075 pounds active ingredient) of this product per acre.	Begin applications when thrips first appear. Make repeat applications as needed but do not apply more than 20.0 ounces (0.375 pounds active ingredient) per acre per calendar year of this product nor exceed 5 applications per calendar year. For optimal pest control, thorough crop coverage is essential as thrips will often seek the sheltered parts of plants. Adjust spray equipment such that a fine spray is produced for application. To prevent injury to cabbage, an application during the “cupping” stage can be useful. To reduce the potential for resistance, make applications of this product with insecticides that have a different mode of action.
<b>Swede Midge</b>	Apply 4.0 ounces (0.075 pounds active ingredient) of this product per acre.	Controlling the first generation of Swede Midge in the area with a preventative spray will reduce the likelihood of population spikes later in the season.

**USE RESTRICTIONS**

- Maximum applications: 5 per calendar year.
- Do NOT apply more than once every 7 days.
- The maximum pre-transplant application rate is 0.15 pound acetamiprid per acre.
- Pre-Harvest Interval (PHI) = 7 days
- Do NOT apply more than 20.0 ounces (0.375 pounds active ingredient) per acre per calendar year regardless of application method including pre-transplant applications.
- There are no rotational crop plantback restrictions for this product.

**KOHLRABI**

Apply in a minimum finished spray volume of 5 gallons per acre by air or 20 gallons per acre by ground.

**SPECIFIC INSTRUCTIONS**

PEST	APPLICATION USE RATE	USE INSTRUCTIONS
<b>Aphids</b>	Apply 2.0-4.0 ounces (0.038-0.075 pounds active ingredient) of this product per acre.	Aphid species may differ in susceptibility to this product. If you are unsure of the aphid species present and its susceptibility, use the higher rates within the listed rate range. Begin applications when treatment thresholds have been reached. Thorough coverage is important to obtain optimum control.
<b>Whitefly; Sweet Potato, Silver Leaf, and Greenhouse (field use only)</b>	Apply 2.5-4.0 ounces (0.047-0.075 pounds active ingredient) of this product per acre.	Begin applications when adult whiteflies first appear and before the development of nymphs. Begin applications when whitefly adults appear prior to development of nymphs. Do not wait until heavy populations have become established. Use of an adjuvant is recommended to improve coverage and control. Use the high rates within the listed rate range under heavy pressure. Whiteflies have shown a tendency to develop resistance. For resistance management purposes, alternating applications of different chemical classes reduces the potential for resistance development.
<b>Diamondback Moth (suppression)</b>	Apply 4.0 ounces (0.075 pound active ingredient) of this product per acre.	Begin applications as soon as moths begin laying eggs and continue as needed. Use in a program as a resistance management tool.
<b>Thrips</b>	Apply 4.0 ounces (0.075 pounds active ingredient) of this product per acre	Begin applications as soon as thrips are seen in the crop and continue applications as needed. Thrips will seek sheltered parts of the plant so using nozzles that produce a fine spray with sufficient water for thorough coverage is essential for good control. Applications during the “cupping” stage of cabbage may be especially helpful in preventing injury. For resistance management purposes, alternating applications of different chemical classes reduces the potential for resistance development.
<b>Swede Midge</b>	Apply 4.0 ounces (0.075 pounds active ingredient) of this product per acre	Controlling the first generation of Swede Midge in the area with a preventative spray will reduce the likelihood of population spikes later in the season.

**USE RESTRICTIONS**

- Maximum applications: 5 per calendar year.
- Do NOT apply more than once every 7 days.
- The maximum pre-transplant application rate is 0.15 pound acetamiprid per acre.
- Pre-Harvest Interval (PHI) = 7 days
- Do NOT apply more than 20.0 ounces (0.375 pounds active ingredient) per acre per calendar year regardless of application method including pre-transplant applications.
- There are no rotational crop plantback restrictions for this product.





**BRASSICA LEAFY GREENS (within Crop Subgroup 4-16B) – Arugula; Broccoli, Chinese; Broccoli raab; Cabbage, Abyssinian; Cabbage, Chinese, bok choy; Cabbage, seakale; Collards; Cress, garden, upland; Hanover salad; Kale; Maca leaves; Mizuna; Mustard greens; Radish leaves; Rape greens; Rocket, wild; Shepherd’s purse; Turnip greens; Watercress\*; cultivars, varieties, and hybrids of these commodities.**

**\*Not for use in California**

Apply this product by air at a minimum finished spray volume of 5 gallons per acre or by ground at a minimum finished spray volume of 20 gallons per acre.

For optimal pest control, thorough crop coverage is essential. Use the higher rate in the range when you are unsure of the susceptibility of the aphid species or when the aphid species is unknown. If under heavy pressure by any of the pests listed below, use the high rate listed in the range.

**SPECIFIC INSTRUCTIONS**

<b>PEST</b>	<b>APPLICATION USE RATE</b>	<b>USE INSTRUCTIONS</b>
<b>Aphids</b>	Apply 2.0-5.3 ounces (0.038-0.100 pounds active ingredient) of this product per acre.	Aphid species may differ in susceptibility to this product. If you are unsure of the aphid species present or if there are difficult-to-control species such as lettuce aphid, red aphid, foxglove aphid, etc., use the maximum rate within the listed rate range. Begin applications when treatment thresholds have been reached. Thorough coverage is important to obtain optimum control.
<b>Whitefly; Sweet Potato, Silver Leaf, and Greenhouse (field use only)</b>	Apply 2.5-5.3 ounces (0.047-0.100 pounds active ingredient) of this product per acre.	Begin applications when adult whiteflies first appear and before the development of nymphs. Apply prior to the establishment of heavy infestation. As long as pest infestation continues, make repeat applications a minimum of 7 days apart but do not exceed the maximum application rate per acre per calendar year. Add an adjuvant to improve spray coverage and control. The tendency for resistance development in whiteflies has been observed. To reduce the potential for resistance, make applications of this product with insecticides that have a different mode of action.
<b>Diamondback Moth (suppression) Flea Beetle</b>	Apply 4.0-5.3 ounces (0.075-0.100 pounds active ingredient) of this product per acre.	Begin applications when moths start to lay eggs. Make repeat applications as needed but do not exceed the maximum application rate per acre per calendar year. Use this product as a tool in a pest control program to manage resistance.
<b>Thrips</b>	Apply 4.0-5.3 ounces (0.075-0.100 pounds active ingredient) of this product per acre.	Begin applications when thrips first appear. Make repeat applications as needed but do not exceed the maximum application rate per acre per calendar year. For optimal pest control, thorough crop coverage is essential as thrips will often seek the sheltered parts of plants. Adjust spray equipment such that a fine spray is produced for application. To prevent injury to cabbage, an application during the “cupping” stage can be useful. To reduce the potential for resistance, make applications of this product with insecticides that have a different mode of action.
<b>Harlequin Bug</b>	Apply 4.0-5.3 ounces (0.075-0.100 pounds active ingredient) of this product per acre.	Begin applications when treatment thresholds have been reached. For optimal pest control, thorough crop coverage is essential.
<b>Swede Midge</b>	Apply 4.0-5.3 ounces (0.075-0.100 pounds active ingredient) of this product per acre.	Controlling the first generation of Swede Midge in the area with a preventative spray will reduce the likelihood of population spikes later in the season.

<b>USE RESTRICTIONS</b>
<ul style="list-style-type: none"> <li>- Maximum applications: 4 per calendar year.</li> <li>- Do NOT apply more than once every 7 days.</li> <li>- Do NOT harvest turnip root for food or feed purposes.</li> <li>- The maximum pre-transplant application rate is 0.15 pound acetamiprid per acre.</li> <li>- Pre-Harvest Interval (PHI) = 3 days</li> <li>- There are no rotational crop plantback restrictions for this product</li> <li>- Do NOT apply more than 20.0 ounces (0.375 pounds active ingredient) per acre per calendar year regardless of application method including pre-transplant applications.</li> </ul>



**COTTON (within Crop Subgroup 20C) – cultivars, varieties and/or hybrids of these**

Apply via air or ground in a minimum finished spray volume of 5 gallons per acre. Use a minimum finished spray volume of 10 gallons per acre by ground under conditions of dense foliage or severe pest pressure.

For optimal pest control, thorough crop coverage is essential. If under heavy pressure by any of the pests listed below, use the high rate listed in the range. **NOT** for seed treatment use.

**SPECIFIC INSTRUCTIONS**

PEST	APPLICATION USE RATE	USE INSTRUCTIONS
<b>Aphids</b>	Apply 1.5-2.5 ounces (0.028-0.047 pounds active ingredient) of this product per acre.	Use the higher rate in the range when you are unsure of the susceptibility of the aphid species or when the aphid species is unknown. Begin applications when treatment thresholds have been reached. Foliar absorption may be affected after cutout which could affect aphid control. For best results after cutout, use a penetrating adjuvant (including oils) to increase contact or absorption and/or tank mix with a knockdown insecticide.
<b>Whitefly, Sweet Potato &amp; Silver Leaf</b>	Apply 4.0-5.3 ounces (0.075-0.100 pounds active ingredient) of this product per acre.	Make applications when adult whiteflies first appear and before the development of nymphs. Apply prior to the establishment of heavy infestation. For whitefly control, apply using a minimum finished spray volume of 5 gallons per acre by aircraft and 15 gallons per acre by ground equipment. As long as pest infestation continues, make repeat applications a minimum of 7 days apart but do not apply more than 21.3 ounces (0.4 pounds active ingredient) per acre per calendar year of this product nor exceed 4 applications per calendar year. The tendency for resistance development in whiteflies has been observed. To reduce the potential for resistance, rotate applications of this product with insecticides that have a different mode of action. Foliar absorption may be affected after cutout which could affect whitefly control. For best results after cutout, use a penetrating adjuvant (including oils) to increase contact or absorption and/or tank mix with a knockdown insecticide.
<b>Plantbugs</b> ( <i>Lygus</i> spp.)	Apply 2.5-5.3 ounces (0.047-0.100 pounds active ingredient) of this product per acre.	Begin applications when treatment thresholds have been reached. Applications of this product may only achieve Plantbug suppression as species vary in susceptibility to this product. Achieving control may require that two applications be made 7-10 days apart.
<b>Fleahopper</b>	Apply 1.5-2.5 ounces (0.028-0.047 pounds active ingredient) of this product per acre.	Begin applications when treatment thresholds have been reached.
<b>Thrips</b>	Apply 2.5-4.0 ounces (0.047-0.075 pounds active ingredient) of this product per acre.	Begin applications when damage by thrips is first noticed or expected. Spray coverage and control can be improved with the addition of a surfactant.
<b>FOR USE AS AN OVICIDE</b>		
<b>Budworm Bollworm</b>	Apply 1.5-2.5 ounces (0.028-0.047 pounds active ingredient) of this product per acre.	Begin applications when treatment thresholds have been reached. Apply within 24 hours of egg lay.
<b>Whitefly</b>	Apply 4.0-5.3 ounces (0.075-0.100 pounds active ingredient) of this product per acre.	Sustained control of migrating adult whiteflies will not be achieved when making applications for ovicidal control.
<b>USE RESTRICTIONS</b>		
<ul style="list-style-type: none"> <li>- Maximum applications: 4 per calendar year.</li> <li>- Do NOT apply more than once every 7 days.</li> <li>- Pre-Harvest Interval (PHI) = 28 days</li> <li>- Do NOT apply more than 21.3 ounces (0.4 pounds active ingredient) per acre per calendar year regardless of application method.</li> <li>- There are no rotational crop plantback restrictions for this product.</li> </ul>		



**CUCURBITS (within Crop Group 9) – Chayote (fruit); Chinese Waxgourd (Chinese preserving melon); Citron Melon; Cucumber; Gherkin; Gourd, edible; *Momordica* spp.; Muskmelon (hybrids and/or cultivars of *Cucumis melo* including True Cantaloupe, Cantaloupe, Casaba, Crenshaw melon, Golden Pershaw Melon, Honeydew Melon, Honey Balls, Mango Melon, Persian Melon, Pineapple Melon, Santa Claus Melon, and Snake Melon); Pumpkin; Squash, summer and winter; Watermelon**

Apply this product by air at a minimum finished spray volume of 5 gallons per acre or by ground at a minimum finished spray volume of 20 gallons per acre. For optimal pest control thorough crop coverage is essential. If under heavy pressure by any of the pests listed below, use the high rate listed in the range.

**SPECIFIC INSTRUCTIONS**

PEST	APPLICATION USE RATE	USE INSTRUCTIONS
<b>Cucumber Beetle (Spotted, Striped, and Western Striped) Melonworm Pickleworm</b>	Apply 2.5-5.3 ounces (0.047-0.100 pound active ingredient) of this product per acre.	After application to Cucumber Beetle, adult beetles will stop feeding and death will follow within a few days. Add a spray adjuvant, like a silicone-based surfactant or horticultural oil, to improve spray coverage and control. For applications to control Melonworm, make applications when foliar feeding is first noticed or when larvae are observed in the field. For applications to control Pickleworm, make applications at first bloom. Make additional applications as needed.
<b>Squash Bug Squash Vine Borer</b>	Apply 5.3 ounces (0.100 pound active ingredient) of this product per acre.	For optimal control of Squash Bug, make applications to newly laid eggs and nymphs.
<b>Aphids Leafhoppers</b>	Apply 2.5-4.0 ounces (0.047-0.075 pound active ingredient) of this product per acre.	Use the higher rate in the range when you are unsure of the susceptibility of the aphid or leafhopper species or when the aphid species is unknown.
<b>Whitefly Sweet Potato Silver Leaf</b>	Apply 2.5-5.3 ounces (0.047-0.10 pound active ingredient) of this product per acre.	Begin applications when adult whiteflies first appear and before the development of nymphs. Apply prior to the establishment of heavy infestation. As long as pest infestation continues, make repeat applications a minimum of 5-7 days apart but do not apply more than 26.5 ounces (0.5 pound active ingredient) per acre per calendar year of this product nor exceed a maximum of 5 applications per calendar year. Use the higher rate in the range when crop is under heavy pest pressure. Add an adjuvant to improve spray coverage and control. The tendency for resistance development in whiteflies has been observed. To reduce the potential for resistance, rotate applications of this product with insecticides that have a different mode of action.

**USE RESTRICTIONS**

- Maximum applications: 5 per calendar year.
- Do NOT apply more than once every 5 days.
- The maximum pre-transplant application rate is 0.15 pound acetamiprid per acre.
- Pre-Harvest Interval (PHI) = 0 days (may be applied same day as harvest)
- Do NOT apply more than 26.5 ounces (0.5 pound active ingredient) per acre per calendar year regardless of application method including pre-transplant applications.

**EDIBLE PODDED LEGUME VEGETABLES (within Crop Subgroup 6A) AND SUCCULENT SHELLED PEAS AND BEANS (within Crop Subgroup 6B) – Bean (*Phaseolus* spp.), includes Lima Bean (Green), Runner Bean, Snap Bean, Wax Bean; Bean (*Vigna* spp.), includes Asparagus Bean, Blackeyed Pea, Chinese Longbean, Cowpea, Moth Bean, Southern Pea, Yardlong Bean; Broad Bean (succulent); Jackbean; Pea (*Pisum* spp.), includes Dwarf Pea, Edible-Pod Pea, English Pea, Garden Pea, Green Pea, Snow Pea, Sugar Snap Pea; Pigeon Pea; Soybean (immature seed); Sword Bean**

Apply this product by air at a minimum finished spray volume of 5 gallons per acre or by ground at a minimum finished spray volume of 20 gallons per acre. For optimal pest control, thorough crop coverage is essential.

Use the higher rate in the range when you are unsure of the susceptibility of the aphid or thrips species or when the aphid or thrip species is unknown.

**SPECIFIC INSTRUCTIONS**

PEST	APPLICATION USE RATE	USE INSTRUCTIONS
<b>Aphids, Leafhoppers, Cucumber Beetles, Bean Leaf Beetle, Mexican Bean Beetle</b>	Apply 2.5-5.3 ounces (0.047-0.100 pounds active ingredient) of this product per acre.	Apply this product by air at a minimum finished spray volume of 5 gallons per acre or by ground at a minimum finished spray volume of 20 gallons per acre. For optimal pest control, thorough crop coverage is essential. Use the higher rate in the range when you are unsure of the susceptibility of the aphid or thrips species or when the aphid or thrip species is unknown.
<b>Whitefly</b>	Apply 4.0-5.3 ounces (0.075-0.100 pounds active ingredient) of this product per acre.	
<b>Thrips</b>	Apply 4.5-5.3 ounces (0.085-0.100 pounds active ingredient) of this product per acre.	

**USE RESTRICTIONS**

- Maximum applications: 3 per calendar year.
- Do NOT apply more than once every 7 days.
- Pre-Harvest Interval (PHI) = 7 days
- Do NOT apply more than 16.0 ounces (0.3 pound active ingredient) per acre per calendar year regardless of application method.



**GRAPES & OTHER CLIMBING VINE SMALL FRUITS (except Fuzzy Kiwifruit) (within Crop Subgroup 13-07F) – Amur River Grape; Gooseberry; Kiwifruit, hardy; Maypop; Schisandra Berry; and cultivars, varieties and/or hybrids of these**

Apply this product by air at a minimum finished spray volume of 5 gallons per acre or by ground at a minimum finished spray volume of 20 gallons per acre. For optimal pest control, thorough crop coverage is essential; use ground applications.

**SPECIFIC INSTRUCTIONS**

PEST	APPLICATION USE RATE	USE INSTRUCTIONS
<b>Aphids</b> <b>Glasswinged Sharpshooter</b> <b>Grape Berry Moth</b> <b>Grape Cane Girdler</b> <b>Leafhoppers (including grape leafhopper and variegated leafhopper)</b> <b>Mealybug (including grape, obscure, and vine)</b> <b>Thrips</b> <b>Western Grapeleaf Skeletonizer</b>	Apply 2.5-5.3 ounces (0.047-0.100 pound active ingredient) of this product per acre.	For applications to control Western Grapeleaf Skeletonizer, make applications when larvae are witnessed feeding on leaves. To achieve thorough crop spray coverage, use a sufficient volume of water.  The use of spray adjuvants, such as high quality non-ionic surfactants, methylated seed or horticultural oils, may enhance coverage and plant uptake and may improve pest control. The use of stickers is not recommended. Some adjuvants can cause adverse effects, such as spotting or burn to fruit or foliage. Select an adjuvant that will be safe for the target crop. Follow adjuvant use directions. Consult your local Extension Service, Crop Advisor or Atticus, LLC representative for additional information.
<b>Banded Grape Bug</b> <b>Japanese Beetle</b> <b>Phylloxera (aerial form only)</b> <b>Rose Chafer – NOT for use on these pests in CA, OR, and WA.</b>	Apply 2.5-5.3 ounces (0.047-0.100 pound active ingredient) of this product per acre.	After application to Japanese Beetle, adult beetles will stop feeding and death will follow within a few days.  The use of spray adjuvants, such as high quality non-ionic surfactants, methylated seed or horticultural oils, may enhance coverage and plant uptake and may improve pest control. The use of stickers is not recommended. Some adjuvants can cause adverse effects, such as spotting or burn to fruit or foliage. Select an adjuvant that will be safe for the target crop. Follow adjuvant use directions. Consult your local Extension Service, Crop Advisor or Atticus, LLC representative for additional information.

**USE RESTRICTIONS**

- Not for use on Banded Grape Bug, Japanese Beetle, Phylloxera (aerial form only), and Rose Chafer in CA, OR, and WA.
- Maximum applications: 2 per calendar year.
- Do NOT apply more than once every 14 days.
- Pre-Harvest Interval (PHI) = 3 days
- Do NOT apply more than 10.6 ounces (0.2 pound active ingredient) per acre per calendar year regardless of application method.

**LEAF PETIOLE VEGETABLES (within Crop Subgroup 22B) – Cardoon; Celery; Chinese Celery; Fuki; Rhubarb; Udo; Zuiki; cultivars, varieties and hybrids of these commodities**

Apply in a minimum finished spray volume of 5 gallons per acre by air or 20 gallons per acre by ground.

**SPECIFIC INSTRUCTIONS**

PEST	APPLICATION USE RATE	USE INSTRUCTIONS
<b>Aphids</b>	Apply 2.0-4.0 ounces (0.038-0.075 pound active ingredient) of this product per acre.	Aphid species may differ in susceptibility to this product. If you are unsure of the aphid species present or if there are difficult-to-control species such as lettuce aphid, red aphid, foxglove aphid, etc., use the maximum rate within the listed rate range.  Begin applications when treatment thresholds have been reached.  Thorough coverage is important to obtain optimum control.
<b>Whitefly</b> <b>Sweet Potato, Silver Leaf, and Greenhouse (field use only)</b>	Apply 3.0-4.0 ounces (0.056-0.075 pound active ingredient) of this product per acre.	Begin applications when whitefly adults appear prior to development of nymphs. Do not wait until heavy populations have become established. Use of an adjuvant is recommended to improve coverage and control. Use the high rates within the listed rate range under heavy pressure.  Whiteflies have shown a tendency to develop resistance.  For resistance management purposes, alternating applications of different chemical classes reduces the potential for resistance development.

**USE RESTRICTIONS**

- For any of the pests listed above, use the high rate within the listed rate range under heavy pest pressure.
- Do NOT make more than 5 applications per calendar year.
- Do NOT apply more than once every 7 days.
- Do NOT apply less than 7 days before harvest (PHI = 7 days).
- Do NOT apply more than 20 ounces (0.375 pounds acetamiprid active ingredient) per acre per calendar year including any pre-transplant applications of acetamiprid.
- Maximum pre-transplant application rate of acetamiprid is 0.15 lb ai/A.
- There are no rotational crop plantback restrictions for this product.



**ONIONS AND OTHER BULB VEGETABLES (within Crop Group 3-07) – Chives, fresh leaves; Chives, Chinese, fresh leaves; Daylily, bulbs; Elegans Hosta; Fritillaria, bulb and leaves; Garlic, bulb; Garlic, Great Headed, bulb; Garlic, Serpent, bulb; Kurrat; Lady's Leek; Leek; Leek, wild; Lily, bulb; Onion, Beltville Bunching; Onion, bulb; Onion, Chinese, bulb; Onion, fresh; Onion, green; Onion, Macrostem; Onion, Pearl; Onion, Potato, bulb; Onion, Tree, tops; Onion, Welsh, tops; Shallot, bulb; Shallot, fresh leaves; and cultivars, varieties, and/or hybrids of these**

Apply this product by air at a minimum finished spray volume of 5 gallons per acre or by ground at a minimum finished spray volume of 20 gallons per acre. For optimal pest control, thorough crop coverage is essential. Add a silicone-based surfactant or horticultural oil to improve spray coverage and control.

**SPECIFIC INSTRUCTIONS**

PEST	APPLICATION USE RATE	USE INSTRUCTIONS
<b>Thrips</b>	Apply 5.0-8.0 ounces (0.094-0.150 pound active ingredient) of this product per acre.	Use the higher rate in the range when you are unsure of the susceptibility of the thrips species or when the thrips species is unknown.

**USE RESTRICTIONS**

- Maximum applications: 4 per calendar year.
- Do NOT apply more than once every 7 days.
- The maximum pre-transplant application rate is 0.15 pounds acetamiprid per acre.
- Pre-Harvest Interval (PHI) = 7 days
- Do NOT apply more than 32.0 ounces (0.6 pounds active ingredient) per acre per calendar year regardless of application method including pre-transplant applications.

**POME FRUIT (within Crop Group 11-10) – Apple; Azarole; Crabapple; Loquat; Mayhaw; Hook; Medlar; Pear; Pear, Asian; Quince; Quince, Chinese; Quince, Japanese; Tejocote; and cultivars, varieties and/or hybrids of these**

Apply this product by air at a minimum finished spray volume of 10 gallons per acre or by ground at a minimum finished spray volume of 50 gallons per acre. For optimal pest control, thorough crop coverage is essential and use ground applications of complete sprays (spraying every row).

Make applications prior to the establishment of heavy infestation and before populations of insects reach harmful levels. Degree day models can be used for codling moth, leafminer, and certain other insects to determine the timing and interval of applications. Lasting pest control for labeled pests depends on the rate. Use the high rate listed in the range for best residual control. Add a spray adjuvant, like a high quality non-ionic surfactant, to improve spray coverage and control. Add a horticultural oil for controlling mites, especially when conditions are favorable to an increase in mite populations. Consider mite population history and the use of other products in the orchard when evaluating whether a predisposition for mite population buildup may exist.

Additional information may be obtained from your local Crop Advisor, Extension Service representative, or a representative from Atticus, LLC.

If under heavy pressure by any of the pests listed below, use the higher rate listed in the range.

**SPECIFIC INSTRUCTIONS**

PEST	APPLICATION USE RATE	USE INSTRUCTIONS
<b>Aphids Leafhoppers</b>	Apply 2.5-4.0 ounces (0.047-0.075 pounds active ingredient) of this product per acre.	For aphids, use the higher rate in the range when you are unsure of the susceptibility of the aphid species or when the aphid species is unknown. Use of the higher rate in the range and repeat applications may be required but do not apply more than 32.0 ounces (0.60 pound active ingredient) per acre per calendar year nor exceed 4 applications per calendar year to control woolly apple aphid.
<b>Tentiform Leafminer</b>	Apply 2.5 ounces (0.047 pounds active ingredient) of this product per acre.	Application(s) for leafminer control must be made before larvae reach the tissue feeding stage.
<b>Codling Moth Mealybug Mullein Plant Bug (Campylomma) Psylla</b>	Apply 4.0-8.0 ounces (0.075-0.150 pounds active ingredient) of this product per acre.	Addition of a horticultural oil with this product has been observed to increase control of Codling Moth.  For applications to control Mullein Plant Bug, do not apply when bees are actively foraging in the area is observed. Apply this product at pink bud through bloom and prior to petal fall when trying to prevent fruit damage from mullein plant bug.  Psylla control may be suboptimal with summer applications.
<b>European Apple Sawfly Japanese Beetle Lesser Apple Worm Oriental Fruit Moth</b>	Apply 5.0-8.0 ounces (0.094-0.150 pounds active ingredient) of this product per acre.	After application to Japanese Beetle, adult beetles will stop feeding and death will follow within a few days.
<b>Apple Maggot Dogwood Borer Plum Curculio San Jose Scale (suppression)</b>	Apply 8.0 ounces (0.150 pounds active ingredient) of this product per acre.	For applications to control Apple Maggot, spray timing may be determined through the use of baited spheres.  For applications to control Dogwood Borer, apply to tree trunks and make first application after moth emergence during egg-laying. Apply a second time 14 to 21 days later.  For best results to control Plum Curculio, make one application at early petal fall followed by one or two additional thorough coverage spray applications during egg-laying.  Make applications to control San Jose Scale during the crawler stage for optimal pest control. Add a horticultural oil to enhance control of San Jose Scale.

**USE RESTRICTIONS**

- Maximum applications: 4 per calendar year.
- Do NOT apply more than once every 12 days.
- Pre-Harvest Interval (PHI) = 7 days
- Do NOT apply more than 32.0 ounces (0.60 pound active ingredient) per acre per calendar year regardless of application method.



**STONE FRUIT (within Crop Group 12-12) – Apricot; Apricot, Japanese; Capulin; Cherry, black, Nanking, sweet and tart; Jujube, Chinese; Nectarine; Peach; Plum, American, Beach, Canada, Cherry, Chickasaw, Damson, Japanese, Klamath, and Prune; Plumcot; Prune, fresh and dried; Sloe; and cultivars, varieties and/or hybrids of these.**

Apply this product by air at a minimum finished spray volume of 10 gallons per acre or by ground at a minimum finished spray volume of 50 gallons per acre. For optimal pest control, thorough crop coverage complete row sprays are essential.

Lasting pest control for labeled pests depends on the rate. Use the high rate listed in the range for best residual control. Add a spray adjuvant, like a high quality silicone-based surfactant or horticultural oil, to improve spray coverage and control. Degree day models in combination with pheromone traps can be used to determine the timing and interval of applications.

Additional information may be obtained from your local Crop Advisor, Extension Service representative, or a representative from Atticus, LLC.

If under heavy pressure by any of the pests listed below, use the higher rate listed in the range.

**SPECIFIC INSTRUCTIONS**

PEST	APPLICATION USE RATE	USE INSTRUCTIONS
<b>Aphids Leafhoppers</b>	Apply 2.5-5.3 ounces (0.047-0.100 pounds active ingredient) of this product per acre.	For aphids, use the higher rate in the range when you are unsure of the susceptibility of the aphid species or when the aphid species is unknown.
<b>Glassywinged Sharpshooter</b>	Apply 4.0-8.0 ounces (0.075-0.150 pounds active ingredient) of this product per acre.	
<b>Oriental Fruit Moth Peach Twig Borer Plum Curculio Cat-facing Insects, e.g. plant bug and stinkbug (suppression)</b>	Apply 5.3-8.0 ounces (0.100-0.150 pounds active ingredient) of this product per acre.	Add a horticultural oil to improve spray coverage and control.  For best results to control Plum Curculio, make one application at early petal fall followed by one or two additional thorough coverage spray applications during egg-laying. For control of subsequent generations, refer to local suggested practices.  For best results to control Oriental Fruit Moth and Peach Twig Borer, apply with oil during the delayed-dormant period prior to bud break. Follow with applications at moth flights determined using degree day models.
<b>Cherry Fruit Fly Black Cherry Fruit Fly Western Cherry Fruit Fly</b>	Apply 5.3-8.0 ounces (0.100-0.150 pounds active ingredient) of this product per acre.	Begin applications for cherry fruit fly, black cherry fruit fly, and western cherry fruit fly at adult emergence followed by applications at 10 day intervals through egg hatch, not to exceed 4 applications per year. For optimal control of fruit flies, suitable application timing is essential.
<b>San Jose Scale Japanese Beetle Rose Chafer</b>	Apply 5.3-8.0 ounces (0.100-0.150 pounds active ingredient) of this product per acre.	For best results to control San Jose Scale, apply with horticultural oil during the delayed-dormant or dormant period. Follow with in-season applications during the crawler stage. Add a horticultural oil to application made during the crawler stage to enhance control of San Jose Scale. When using oil, refer to local suggested practices.  After application to Japanese Beetle, adult beetles will stop feeding and death will follow within a few days.

**USE RESTRICTIONS**

- Maximum applications: 4 per calendar year.
- Do NOT apply more than once every 10 days.
- Pre-Harvest Interval (PHI) = 7 days
- Do NOT apply more than 32.0 ounces (0.6 pound active ingredient) per acre per calendar year regardless of application method.

**STRAWBERRIES AND OTHER LOW GROWING BERRIES (within Crop Subgroup 13-07G) – Bearberry; Bilberry; Blueberry, Lowbush; Cloudberry; Cranberry; Lingonberry; Muntries; Partridgeberry; Strawberry; and cultivars, varieties, and/or hybrids of these**

Apply this product by air at a minimum finished spray volume of 10 gallons per acre or by ground at a minimum finished spray volume of 20 gallons per acre. For optimal pest control, thorough crop coverage is essential. If under heavy pressure by any of the pests listed below, use the higher rate listed in the range.

**SPECIFIC INSTRUCTIONS**

PEST	APPLICATION USE RATE	USE INSTRUCTIONS
<b>Blueberry Maggot, Spanworm, Cherry Fruitworm, Cranberry Fruitworm, Flea Beetle, Japanese Beetle, Oblique Banded Leaf Roller, Plantbugs (Lygus spp.) Sap Beetles, Thrips, Whiteflies, Fireworm (suppression), Gypsy Moth, Sparganothis Fruitworm, Cranberry Tipworm</b>	Apply 4.0-6.9 ounces (0.075-0.130 pounds active ingredient) of this product per acre.	Use the higher rate in the range when you are unsure of the susceptibility of the thrips species or when the thrips species is unknown.
<b>Aphids, Leafhoppers, Spittlebug</b>	Apply 1.9-4.0 ounces (0.035-0.075 pounds active ingredient) of this product per acre.	Use the higher rate in the range when you are unsure of the susceptibility of the aphid species or when the aphid species is unknown.

**USE RESTRICTIONS**

- Maximum applications: 2 per calendar year.
- Do NOT apply more than once every 7 days.
- For cranberry bogs treated with this product, do NOT flood within 60 days after application.
- Do NOT grow more than one crop of cranberries per calendar year.
- Pre-Harvest Interval (PHI) = 1 day
- Do NOT apply more than 13.8 ounces (0.26 pounds active ingredient) per acre per calendar year regardless of application method.



**SWEET CORN**

Apply this product by air at a minimum finished spray volume of 5 gallons per acre or by ground at a minimum finished spray volume of 20 gallons per acre. For optimal control, thorough spray coverage is essential.

**SPECIFIC INSTRUCTIONS**

PEST	APPLICATION USE RATE	USE INSTRUCTIONS
<b>Corn Flea Beetle</b> <b>Northern Rootworm</b> <b>Western Rootworm</b> <b>Southern Rootworm</b> <b>Beetles (adults)</b> <b>Corn (Dusky) Sap Beetle</b>	Apply 4.0-5.3 ounces (0.075-0.100 pounds active ingredient) of this product per acre.	Make up to 2 applications on a 14 day interval. Do not make applications within 7 days prior to harvest.  When applications are made to control Corn Flea Beetle, scout fields regularly from emergence to when corn reaches 1 foot tall.  For control of Northern, Western, and Southern Rootworm and adult beetles, make applications during the corn silking period. For control of Corn (Dusky) Sap Beetle, make applications during the corn tasseling and silking periods.
<b>Aphids, Corn Leaf Aphid and Vegetable Aphid</b>	Apply 2.1-2.8 ounces (0.040-0.053 pounds active ingredient) of this product per acre.	Make up to 4 applications on a 7 day interval but only if applied in a tank mixture or rotated with an alternative insecticide. Do not make applications within 1 day prior to harvest.
<b>Japanese Beetle</b> <b>Stink Bugs (suppression)</b> <b>Corn Silk Fly (suppression)</b>	Apply 5.3 ounces (0.100 pounds active ingredient) of this product per acre.	Make up to 2 applications on a 14 day spray interval during corn tussling and silking. Do not make applications within 7 days prior to harvest.  For control of Japanese Beetle, make applications when beetles first appear. The corn crop is most susceptible to Japanese Beetle feeding during the silking period. Scout fields regularly starting when beetles first appear.

**USE RESTRICTIONS**

- Maximum applications: 2 at the 5.3 ounces product rate per calendar year or 4 at the 2.8 ounces product rate per calendar year. Refer to rates listed above.
- Pre-Harvest Interval (PHI) = See PEST SPECIFIC INSTRUCTIONS
- Do NOT apply more than 11.2 ounces (0.21 pounds active ingredient) per acre per calendar year regardless of application method.

**TOBACCO**

Apply this product by air at a minimum finished spray volume of 5 gallons per acre or by ground at a minimum finished spray volume of 20 gallons per acre. For optimal pest control, thorough crop coverage is essential. If under heavy pest pressure by any of the pests listed below, use the higher rate listed in the range.

**SPECIFIC INSTRUCTIONS**

PEST	APPLICATION USE RATE	USE INSTRUCTIONS
<b>Flea Beetles</b> <b>Hornworms</b>	Apply 2.5-4.0 ounces (0.047-0.075 pounds active ingredient) of this product per acre.	
<b>Aphids</b>	Apply 1.5-4.0 ounces (0.028-0.075 pounds active ingredient) of this product per acre.	Use the higher rate in the range when you are unsure of the susceptibility of the aphid species or when the aphid species is unknown.

**FOR USE AS AN OVICIDE**

<b>Budworm</b>	Apply 2.5-4.0 ounces (0.047-0.075 pounds active ingredient) of this product per acre.	
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**USE RESTRICTIONS**

- Maximum applications: 4 per calendar year.
- Do NOT apply more than once every 7 days.
- Pre-Harvest Interval (PHI) = 7 days
- Do NOT apply more than 16.0 ounces (0.3 pound active ingredient) per acre per calendar year regardless of application method.



**TREE NUTS (within Crop Group 14-12) (including PISTACHIO) – African nut-tree, Almond; Beech Nut; Brazil Nut; Brazilian Pine; Bunya; Bur Oak; Butternut; Cajou Nut; Candelnut; Cashew; Chestnut; Chinquapin; Coconut; Coquito Nut; Dika Nut; Ginkgo; Guiana Chestnut; Filbert (Hazelnut); Hearnut; Hickory Nut; Japanese Horse-Chestnut, Macadamia Nut (Bush Nut); Mongongo Nut; Monkey-Pot; Monkey Puzzle Nut; Okari Nut; Pachira Nut; Peach Palm Nut; Pecan; Pequi, Pili Nut; Pine Nut; Pistachio; Sapucaia Nut; Tropical Almond; Walnut, Black and English (Persian); Yellowhorn; and cultivars, varieties and/or hybrids of these.**

Apply this product by air at a minimum finished spray volume of 10 gallons per acre or by ground at a minimum finished spray volume of 50 gallons per acre. For optimal pest control, thorough crop coverage is essential and use complete sprays (spraying every row).

Degree day models in combination with pheromone traps can be used to determine the timing and interval of applications. Additional information may be obtained from your local Crop Advisor, Extension Service representative, or a representative from Atticus, LLC.

If under heavy pressure by any of the pests listed below or dense foliage is present, use the higher rate listed in the range.

**SPECIFIC INSTRUCTIONS**

PEST	APPLICATION USE RATE	USE INSTRUCTIONS
<b>Aphids Leafhoppers</b>	Apply 2.5-9.6 ounces (0.047-0.180 pounds of active ingredient) of this product per acre.	Use the higher rate in the range when you are unsure of the susceptibility of the aphid species or when the aphid species is unknown or when trying to control Black Pecan Aphid. For optimal pest control, use the higher rate in the range when applying to mature trees. Add an adjuvant to enhance spray coverage and pest control.
<b>Glassywinged Sharpshooter Pecan Nut Casebearer</b>	Apply 4.0-8.0 ounces (0.075-0.150 pounds active ingredient) of this product per acre.	
<b>Codling Moth Oriental Fruit Moth Peach Twig Borer San Jose Scale Hickory Shuckworm Pecan Weevil Red Humped Caterpillar Filbertworm Naval Orange-worm</b>	Apply 5.3-9.6 ounces (0.100-0.180 pounds active ingredient) of this product per acre.	Lasting pest control for labeled pests depends on the rate. Use the high rate listed in the range for best residual control when applying to mature, tall trees with dense foliage and for best results when controlling Pecan Weevil. Add a horticultural oil to enhance control. When using oil, refer to local suggested practices. For best results to control Oriental Fruit Moth and Peach Twig Borer, apply with oil during the delayed-dormant period prior to bud break. Follow with in-season applications at moth flights determined using degree day models. For best results to control Codling Moth, make in-season applications at moth flights determined using degree day models. For best results to control San Jose Scale, apply with horticultural oil during the delayed-dormant or dormant period. Follow with in-season applications during the crawler stage.
<b>Walnut Husk Fly</b>	Apply 6.4-8.0 ounces (0.120-0.150 pounds active ingredient) of this product per acre.	Apply once adult egg-producing (gravid) females are first observed. Make application with husk fly bait using the specified rate. Make a repeat application, if necessary, 3-4 weeks later.
<b>Gill's Mealybug</b>	Apply 8.0 ounces (0.150 pounds active ingredient) of this product per acre.	Begin applications in early to mid-June when crawlers first appear. To achieve thorough crop spray coverage, use a sufficient volume of water. For best results, use a horticultural oil or penetrating adjuvant (does not include stickers) to increase pest control.

**USE RESTRICTIONS**

- Maximum applications: 4 per calendar year.
- Do NOT apply more than once every 14 days.
- Pre-Harvest Interval (PHI) = 14 days
- Do NOT apply more than 38.4 ounces (0.72 pound active ingredient) per acre per calendar year regardless of application method.

**TROPICAL AND SUBTROPICAL MEDIUM TO LARGE FRUIT, SMOOTH, INEDIBLE PEEL (Subgroup 24B) – Abiu; Akee Apple; Avocado; Avocado, Guatemalan; Avocado, Mexican; Avocado, West Indian; Bacury; Banana; Banana, Dwarf; Binjai; Canistel; Cupuacú; Etambe; Jabobá; Kei Apple; Langsat; Lanjut; Lucuma; Mabolo; Mango; Mango, Horse; Mango, Saipan; Mangosteen; Paho; Papaya; Pawpaw, Common; Pelipisan; Pequi; Pequia; Persimmon, American; Plantain; Pomegranate; Poshte; Quandong; Sapote, Black; Sapote, Green; Sapote, White; Sataw; Screw-pine; Star Apple; Tamarind-of-the-Indies; Wild Loquat; cultivars, varieties, and hybrids of these commodities.**

Apply in a minimum finished spray volume of at least 10 gallons per acre by air or 50 gallons per acre by ground.

**SPECIFIC INSTRUCTIONS**

PEST	APPLICATION USE RATE	USE INSTRUCTIONS
<b>Mealybug</b>	Apply 8.0 (0.150 pounds active ingredient) of this product per acre.	For Mealybug control, apply as crawlers / nymphs become active. Begin applications when treatment thresholds have been reached. Thorough coverage is important to obtain optimum control.
<b>Whitefly</b>	Apply 4.0 – 8.0 (0.075 – 0.150 pounds active ingredient) of this product per acre.	Begin applications when whitefly adults appear prior to development of nymphs. Do not wait until heavy populations have become established. Use of an adjuvant is recommended to improve coverage and control. Use the high rates within the listed rate range under heavy pressure. Whiteflies have shown a tendency to develop resistance. For resistance management purposes, alternating applications of different chemical classes reduces the potential for resistance development.
<b>Aphid Leaf-hoppers</b>	Apply 2.5 – 8.0 (0.047 – 0.150 pounds active ingredient) of this product per acre	Aphid and leafhopper species may differ in susceptibility to this product. If you are unsure of the species present, use the maximum rate within the listed rate range.
<b>Glassy-Winged Sharpshooter</b>	Apply 4.0 – 8.0 (0.075 – 0.150 pounds active ingredient) of this product per acre	Use the higher rates within the listed rate range under heavy insect pressure. Begin applications when treatment thresholds have been reached. Thorough coverage is important to obtain optimum control.
<b>Katydid</b>	Apply 6.0 – 8.0 (0.11 – 0.150 pounds active ingredient) of this product per acre	Thorough coverage is important to obtain optimum control.

**USE RESTRICTIONS**

- Do NOT make more than 2 applications per calendar year.
- Do NOT apply more than once every 14 days.
- Do NOT apply less than 1 day before harvest (PHI = 1 day).
- Do NOT apply more than 16.0 oz. (0.30 lb. active ingredient) per acre per calendar year.





**FRUITING VEGETABLES (within Crop Group 8-10) – African Eggplant; Bush Tomato; Cocona; Currant Tomato; Eggplant; Garden Huckleberry; Goji Berry; Groundcherry; Martynia; Naranjilla; Okra; Pea Eggplant; Pepino; Pepper, bell; Pepper, nonbell; Roselle; Scarlet Eggplant; Sunberry; Tomatillo; Tomato; Tree Tomato; and cultivars/hybrids of these**

Apply this product by air at a minimum finished spray volume of 5 gallons per acre or by ground at a minimum finished spray volume of 20 gallons per acre. For optimal pest control thorough crop coverage is essential. Use the higher rate in the range when you are unsure of the susceptibility of the aphid or thrips species or when the aphid or thrips species is unknown. If under heavy pressure by any of the pests listed below, use the high rate listed in the range.

**SPECIFIC INSTRUCTIONS**

<b>PEST</b>	<b>APPLICATION USE RATE</b>	<b>USE INSTRUCTIONS</b>
<b>Aphids</b>	Apply 2.0-4.0 ounces (0.038-0.075 pounds active ingredient) of this product per acre.	Aphid species may differ in susceptibility to this product. If you are unsure of the aphid species or if there are difficult-to-control species present, use the maximum rate within the listed rate range.
<b>Colorado Potato Beetle</b>	Apply 1.5-2.5 ounces (0.028-0.047 pounds active ingredient) of this product per acre.	Begin applications when treatment thresholds have been reached. Thorough coverage is important to obtain optimum control.
<b>Whitefly; Sweet Potato, Silver Leaf, and Greenhouse (field use only)</b>	Apply 2.5-4.0 ounces (0.047-0.075 pounds active ingredient) of this product per acre.	Begin applications when adult whiteflies first appear and before the development of nymphs. Apply prior to the establishment of heavy infestation. As long as pest infestation continues, make repeat applications a minimum of 7 days apart but do not apply more than 16.0 ounces (0.3 pounds active ingredient) per acre per calendar year of this product nor exceed a maximum of 4 applications per calendar year. Add an adjuvant to improve spray coverage and control. The tendency for resistance development in whiteflies has been observed. To reduce the potential for resistance, rotate applications of this product with insecticides that have a different mode of action.
<b>Pepper Weevil</b>	Apply 2.5-4.0 ounces (0.047-0.075 pounds active ingredient) of this product per acre.	Begin applications when adult Pepper Weevils first appear and at the same time that flower buds and/or fruit are present. Make repeat applications on 7 to 14 day intervals but do not apply more than 16.0 ounces (0.3 pounds active ingredient) per acre per calendar year of this product nor exceed a maximum of 4 applications per calendar year. If crop is under heavy infestation, make repeat applications at the 7-day interval.
<b>Thrips</b>	Apply 4.0 ounces (0.075 pounds active ingredient) of this product per acre.	Begin applications when thrips first appear. Make repeat applications as needed but do not apply more than 16.0 ounces (0.3 pounds active ingredient) per acre per calendar year of this product nor exceed a maximum of 4 applications per calendar year. To reduce the potential for resistance, rotate applications of this product with insecticides that have a different mode of action.
<b>Leafhopper</b>	Apply 2.5-4.0 ounces (0.047-0.075 pounds active ingredient) of this product per acre.	Begin applications when treatment thresholds have been reached. Thorough coverage is important to obtain optimum control.

**USE RESTRICTIONS**

- Maximum applications: 4 per calendar year.
- Do NOT apply more than once every 7 days.
- The maximum pre-transplant application rate is 0.15 pound acetamiprid per acre.
- Pre-Harvest Interval (PHI) = 7 days
- Do NOT apply more than 16.0 ounces (0.3 pounds active ingredient) per acre per calendar year regardless of application method including pre-transplant applications.



**LEAFY GREENS (within Crop Group 4-16A) – Amaranth, Chinese leafy; Aster, Indian; Blackjack; Cat whiskers; Cham-chwi; Cham-na-mul, Chervil, fresh leaves; Chipilin; Chrysanthemum (edible leaved & garland); Cilantro, fresh leaves; Corn Salad; Cosmos; Dandelion, leaves; Dang-gwi, leaves; Dillweed; Dock; Dol-nam-mul; Ebolo; Endive; Escarole; Farnet; Feather cockscomb; Good King Henry; Huauzontle; Jute, Leaves; Lettuce, bitter, head & leaf; Orach; Parsley, fresh leaves; Plantain, buckthorn; Primrose, English; Purslane, garden & winter; Radicchio; Spinach, leaf, Malabar, New Zealand, & Tanier; Swiss Chard; Violet, Chinese leaves; cultivars, varieties and hybrids of these commodities.**

Apply this product by air at a minimum finished spray volume of 5 gallons per acre or by ground at a minimum finished spray volume of 20 gallons per acre. For optimal pest control, thorough crop coverage is essential. If under heavy pest pressure by any of the pests listed below, use the higher rate listed in the range.

**SPECIFIC INSTRUCTIONS**

PEST	APPLICATION USE RATE	USE INSTRUCTIONS
<b>Aphids</b>	Apply 2.0-4.0 ounces (0.038-0.075 pounds active ingredient) of this product per acre.	Use the higher rate in the range when you are unsure of the susceptibility of the aphid species or when an aphid species that is difficult-to-control is present (e.g., foxglove aphid, lettuce aphid, red aphid, etc.). Begin applications when treatment thresholds have been reached.
<b>Whitefly; Sweet Potato, Silver Leaf, and Greenhouse (field use only)</b>	Apply 3.0-4.0 ounces (0.056-0.075 pounds active ingredient) of this product per acre.	Begin applications when adult whiteflies first appear and before the development of nymphs. Apply prior to the establishment of heavy infestation. As long as pest infestation continues, make repeat applications a minimum of 7 days apart but do not apply more than 20.0 ounces (0.375 pounds active ingredient) per acre per calendar year of this product nor exceed a total of 5 applications per calendar year. Add an adjuvant to improve spray coverage and control. The tendency for resistance development in whiteflies has been observed. To reduce the potential for resistance, rotate applications of this product with insecticides that have a different mode of action.
PEST	APPLICATION USE RATE	USE INSTRUCTIONS
<b>Thrips</b>	Apply 4.0 (0.075 pounds active ingredient) of this product per acre.	Begin applications as soon as thrips are seen in the crop and continue applications as needed. Thrips will seek sheltered parts of the plant so using nozzles that produce a fine spray with sufficient water for thorough coverage is essential for good control. Applications during the “cupping” stage of cabbage may be especially helpful in preventing injury. For resistance management purposes, alternating applications of different chemical classes reduces the potential for resistance development.
<b>Diamondback Moth (suppression)</b>	Apply 4.0 (0.075 pounds active ingredient) of this product per acre.	Begin applications as soon as moths begin laying eggs and continue as needed. Use in a program as a resistance management tool.
<b>Swede Midge</b>	Apply 4.0 (0.075 pounds ingredient) of this product per acre.	Apply as a preventative spray to control the first generation if swede midge has been found in your area. Preventative applications will decrease the chance of quick population increases later in the season.

**USE RESTRICTIONS**

- Maximum applications: 5 per calendar year.
- Do NOT apply more than once every 7 days.
- The maximum pre-transplant application rate is 0.15 pound acetamiprid per acre.
- Pre-Harvest Interval (PHI) = 7 days
- Do NOT apply more than 20.0 ounces (0.375 pounds active ingredient) per acre per calendar year regardless of application method including pre-transplant applications.
- There are no rotational crop plantback restrictions for this product.

**TUBEROUS AND CORM VEGETABLES (within Crop Subgroup 1C) – Arracacha; Arrowroot; Artichoke, Chinese; Artichoke, Jerusalem; Canna, edible; Cassava, bitter and sweet; Chayote, root; Chufa; Dasheen; Ginger; Leren; Potato; Sweet Potato; Tanier; Tumeric; Yam Bean; Yam, true**

Apply this product by air at a minimum finished spray volume of 5 gallons per acre or by ground at a minimum finished spray volume of 20 gallons per acre. For optimal pest control, thorough crop coverage is essential. If under heavy pressure by any of the pests listed below or dense foliage is present, use the high rate listed in the range.

**SPECIFIC INSTRUCTIONS**

PEST	APPLICATION USE RATE	USE INSTRUCTIONS
<b>Aphids</b>	Apply 2.5-4.0 ounces (0.047-0.075 pounds active ingredient) of this product per acre.	Use the higher rate in the range when you are unsure of the susceptibility of the aphid species or when the aphid species is unknown. Use 4.0 ounces of this product per acre if applying through overhead sprinkler irrigation to emerged potato foliage. Refer to the DIRECTIONS FOR CHEMIGATION section of this label for more details.
<b>Leafhoppers Colorado Potato Beetle Cucumber Beetle</b>	Apply 1.5-4.0 ounces (0.028-0.047 pounds active ingredient) of this product per acre.	For Colorado Potato Beetle, use 2.5-4.0 ounces of this product per acre if applying through overhead sprinkler irrigation to emerged potato foliage. Refer to the DIRECTIONS FOR CHEMIGATION section of this label for more details. For Leafhopper, use 4.0 ounces of this product per acre if applying through overhead sprinkler irrigation to emerged potato foliage. Refer to the DIRECTIONS FOR CHEMIGATION section of this label for more details.
<b>Flea Beetle</b>	Apply 1.5-2.5 ounces (0.028-0.047 pounds active ingredient) of this product per acre.	

**FOR USE AS AN OVICIDE**

<b>European Corn Borer</b>	Apply 2.5-4.0 ounces (0.047-0.075 pounds active ingredient) of this product per acre.	
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**USE RESTRICTIONS**

- Maximum applications: 4 per calendar year.
- Do NOT apply more than once every 7 days.
- If an acetamiprid seed treatment application has been made, do NOT make a foliar application to the same crop.
- Pre-Harvest Interval (PHI) = 7 days
- Do NOT apply more than 16.0 ounces (0.3 pound active ingredient) per acre per calendar year regardless of application method.



## STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** ALWAYS STORE PESTICIDES IN THE ORIGINAL CONTAINER. Store away from food, pet food, feed, seed, fertilizers, veterinary supplies, and the home. The storage area must be locked, dry, cool, well-lit, and well-ventilated. Do not allow prolonged storage in areas where temperatures frequently exceed 115° F (46° C).

**PESTICIDE DISPOSAL:** Water, food, or feed contaminated with this product is unfit for human or animal consumption. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

### CONTAINER DISPOSAL:

**PLASTIC CONTAINERS** Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration.

**LINED FIBER DRUM** Nonrefillable container. Do not reuse or refill this container. Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Then offer for recycling if available or dispose of empty bag in a sanitary landfill or by incineration. If drum is contaminated and cannot be reused, dispose of it in the manner required for its liner.

## Limitation of Warranty and Liability

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

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