



QUASARTM

8.5 SL

Contains acetamiprid, the active ingredient used in TriStar[®] 8.5 SL Insecticide.

ACTIVE INGREDIENT:	By Wt.
Acetamiprid.....	8.5%
OTHER INGREDIENTS:	91.5%
TOTAL:	100.0%
Contains 0.76 pounds of acetamiprid per gallon	
EPA Reg. No. 91234-16	

KEEP OUT OF REACH OF CHILDREN CAUTION

SEE BELOW FOR PRECAUTIONARY STATEMENTS

FIRST AID	
IF SWALLOWED:	• Immediately call a poison control center or doctor for treatment advice. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Have person sip a glass of water if able to swallow. • Do not give anything by mouth to an unconscious person.
IF ON SKIN OR CLOTHING:	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
IF INHALED:	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. • Call a poison control center or doctor for further treatment advice.
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-844-685-9173 for emergency medical treatment information.	
NOTE TO PHYSICIAN: 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)

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION

Harmful if swallowed, absorbed through the skin, or inhaled. Avoid breathing vapors or spray mist. Avoid contact with skin or clothing.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear

- long-sleeved shirt and long pants
- chemical resistant gloves made out of barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, polyvinyl chloride (PVC) ≥ 14 mils, or viton ≥ 14 mils
- shoes plus socks

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 before eating, drinking, chewing gum, using tobacco or using the toilet.

Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

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 wildlife. This product is toxic to bees and other pollinating insects exposed to direct treatment. Do not apply this product while bees or other pollinating insects are foraging in the treated area. Risk to managed bees and native pollinators from contact with pesticide spray or residues can be minimized when applications are made at dawn or dusk or when temperature is below 55°F at the site of application. 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.

ENDANGERED SPECIES PROTECTION REQUIREMENTS: This product may have effects on endangered species. When using this product, you must follow the measures contained in the Endangered Species Protection Bulletin for the county in which you are applying the product. To obtain Bulletins, no more than six months before using this product, consult <http://www.epa.gov/espp/> or call 1-800-447-3813. You must use the Bulletin valid for the month in which you will apply the product.

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 use this product for woodland or forest management.

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,
- Chemical resistant gloves (made of any waterproof material), and
- Shoes plus socks

NON-AGRICULTURAL USE REQUIREMENTS

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

Keep children and pets off treated areas until dry.

SPRAY DRIFT

THE APPLICATOR IS RESPONSIBLE FOR PREVENTING SPRAY DRIFT FROM THE TARGET AREA.

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

Weather and equipment are the predominant factors in determining spray drift, and applications must not be made when weather conditions or equipment settings/function may lead to drift outside of the intended application area. 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. Aerial applications must NOT be made during temperature inversions or when wind speed is greater than 10 mph in order to avoid spray drift.

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 applications, public health uses or to applications 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. Nozzles must always point backward parallel with the air stream

Where states have more stringent regulations, they must be observed. The applicator should be familiar with and take into account the information covered in the "Aerial Drift Reduction Advisory" section.

AERIAL DRIFT REDUCTION ADVISORY

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



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” sections).

- **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.
- **Nozzles:**

- 1) Use the minimum number of nozzles that provide uniform coverage.
- 2) Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- 3) 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. NOTE: 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, and areas where bees are foraging) 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.

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.

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 the jar test with equal parts water and this product and mix 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 in a tank mix are registered for the intended use. Users must follow the most restrictive directions and precautionary language of the products of the mixture (for example, first aid from one product, spray drift management from another).

CHEMIGATION

Generic Requirements

1. Apply this product only through the following types of systems: sprinkler including center pivot, lateral move, end tow, side (wheel) roll, traveler, solid set, or hand move, flood (basin), or drip trickle irrigation systems. Do not apply this product through any other type of irrigation system.
2. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water
3. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.
4. 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
5. 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.

Requirements for Chemigation Systems Connected to Public Water Systems

1. Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25, individuals daily at least 60 days out of the year.
2. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent) in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
3. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back towards the injection pump.
4. 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 drawn from the supply tank when the irrigation system is either automatically or manually shutdown.
5. The system must contain functional interlocking controls to automatically shut off the pesticide injection, pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.
6. Systems must use a metering pump, such as a positive displacement injection pump (e.g. diaphragm pump), effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
7. Do not apply when wind speed favors drift beyond the area intended for treatment.

Non-Specific Requirements

1. The entire system including injectors and the chemical tank must have all pesticide residue, scale and any other debris removed and then flushed with clean water.
2. Fill the tank with $\frac{3}{4}$ of the desired amount of water, begin agitation and add the specified amount of this product followed by the remaining $\frac{1}{4}$ of the water.
3. Apply being sure to maintain agitation during the entire application. Start the irrigation system and inject the suspension to deliver the rate per acre required. Be sure the entire application has been flushed out of the irrigation system before stopping irrigation.
4. Using a larger, more dilute volume of suspension will provide a more accurate application.
5. To maximize mixing, the suspension should be injected ahead of a right-angle in the system using a positive displacement pump.



Sprinkler (Overhead) Chemigation

When applying using overhead chemigation systems, be sure to follow all the instructions above as well as the following:

1. Water source contamination due to backflow must be prevented through the use of a functional check valve, a vacuum relief valve, and a low pressure drain located appropriately on the irrigation pipeline.
2. The water pump or irrigation line must incorporate a functional pressure switch that stops the water pump motor when pressure is low enough to affect the distribution of the pesticide within the irrigation system.

Using volumes of water greater than 1/4" of water per acre may reduce efficacy of this product. Use 1/10" – 1/4" of irrigation water per acre. Pest control may also be impacted if sprinkler distribution patterns do not overlap in a manner that ensures even watering.

In center pivot irrigation systems that have fittings and/or connections that leak, nozzles that do not provide uniform coverage, or if the system cannot be flushed but must be disassembled for drainage, block the nozzle set closest to the well pivot injection unit prior to application. Be sure to allow the system to run long enough to flush all pesticides out of the equipment prior to turning off the water.

Drip (Trickle and/or Spaghetti Tube) Chemigation

Be sure to follow the instructions in the **Generic, Chemigation Systems Connected to Public Water** and **Non-Specific** requirements sections above.

PRODUCT SPECIFIC USE DIRECTIONS

This product is intended to be applied by PROFESSIONAL APPLICATORS ONLY for insect control on listed **Vegetable Transplants** grown outdoors or indoors, annual and perennial **Ornamental and Flowering Plants**, and **Non-bearing Deciduous and Evergreen Fruit and Nut Trees, Shrubs and Vines**. *Non-bearing means crops that will not produce a harvestable raw product in the season that product is applied.*

For control of listed insect pests, apply as a foliar broadcast spray to obtain thorough and uniform coverage of the plants or via basal bark or injection treatment. When making foliar broadcast applications, this product must be mixed in sufficient water to assure complete coverage based on the size and amount of plant foliage. Make applications as soon as pest pressure thresholds are reached and at least six hours must elapse prior to applying overhead irrigation. **Do NOT allow anyone other than applicators to enter the treatment area during application.** If more than one application will be made, refer to the Resistance Management section of this label for additional information.

Foliar Broadcast Sprays

Mix this product with sufficient water and apply as a foliar spray to obtain thorough and uniform coverage of the plants. Choose a finished spray volume appropriate for plant size and amount of foliage to provide thorough coverage throughout the canopy.

Tank Mix Instructions

This product has been shown to be compatible with many other insecticides and adjuvants; however, test specific tank mixes for compatibility prior to use. In addition, because of the large number of plant varieties it is impossible to test every one for safe use; therefore, conduct safety tests on a few plants prior to widespread application.



ORNAMENTAL & FLOWERING PLANTS

Base application timing on the pest pressure and in consultation with local agricultural experts. *Test any surfactants used with this product prior to widespread use to verify plant damage will not occur. For optimal pest control, thorough crop coverage is essential and use whatever water volume is needed to ensure thorough coverage.* Monitor pest densities to determine if application is necessary. Consult local extension experts for thresholds.

Use the higher rate in the range when pest pressures are severe.

SPECIFIC INSTRUCTIONS

PEST	APPLICATION USE RATE	USE INSTRUCTIONS
Aphids (including Cotton, Green Peach, Melon and Wooly), European Pine Sawfly , Psyllids	Apply 4.0 fluid ounces of this product combined with a non-ionic spreader/sticker adjuvant per 100 gallons.	
Leafhoppers (including Glassy Wing Sharpshooter and Potato), Mealybugs (including Citrus, Longtail, Maderia, Obscure and Pink Hybiscus), Tentiform Leaf Miner	Apply 8.5 fluid ounces of this product per 100 gallons.	Mealybug control may be enhanced if a surfactant is used with this product.
Adelgids , Caterpillars (including Asian Cycad Scale, Cabbage Looper, Diamondback Moth, Fall Army Worm, Gypsy Moth, Southern Army Worm and Tobacco Bud Worm), Hard and Soft Scales (including Caribbean Black Scale, Cottony Maple Scale, Euonymus Scale, Fletcher Scale, Florida Wax Scale, Green Shield Scale, Indian Wax Scale, Oyster Shell Scale, Pine Needle Scale, San Jose Scale and Tea Scale), Whiteflies (including Banded, Giant, Greenhouse, Silverleaf and Sweet Potato)	Apply 8.5-16.5 fluid ounces of this product per 100 gallons.	Adult whitefly control may be enhanced if a surfactant or pyrethroid insecticide labeled for this use is combined with this product.
Swede Midge	Apply 8.5-16.5 fluid ounces of this product per 100 gallons.	By making a preventive application, the likelihood of rapid increases in Swede Midge population later in the season is diminished.
Crane Fly Larvae , Fungus Gnat Larvae	Apply 8.5-16.5 fluid ounces of this product per 100 gallons as a directed spray to the soil being sure that the upper ½-1 inch of the soil is thoroughly moistened.	
Citrus and Other Thrips (including Cotton, Palm, and Western Flower Thrips), adult Leaf Eating Beetles (including European Chafer, Japanese Beetle and Oriental Beetle), Strawberry Weevils	Apply 12.5-25.3 fluid ounces of this product per 100 gallons.	Control may be enhanced if a surfactant is used with this product.
Leaf Miners (including Chrysanthemum and Citrus Leaf Miner)	Apply 21.0-25.3 fluid ounces of this product per 100 gallons rotated or tank mixed with Avid®, Conserve™, Pedestal™, Distance®, Enstar®, or Talus®.	Control may be enhanced if a surfactant is used with this product.

USE RESTRICTIONS

- Maximum applications: 4 per calendar year.
- Do NOT apply more than once every 7 days. Monitor pest densities to determine if application is necessary. Consult local extension experts for thresholds.
- Do NOT apply to bearing fruit trees.
- Do NOT apply more than 25.3 fluid ounces (0.15 pounds active ingredient) per single application.
- Do NOT apply more than 92.5 fluid ounces (0.55 pounds active ingredient) per acre per calendar year regardless of application method.

BLUEBERRIES AND OTHER BUSH and CANEBERRIES (within Crop Sub-Groups 13-07A and B) Grown for Propagation [Non-Bearing or Vegetative]
– Aronia Berry; Blackberry, Blueberry, highbush & lowbush; Buffalo Currant; Chilean Guava; Currant, red & 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

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
Aphids, Leafhoppers	Apply 7.9-16.8 fluid ounces (0.047-0.10 pounds active ingredient) of this product per 100 gallons.
Whitefly	Apply 12.6-16.8 fluid ounces (0.07-0.10 pounds active ingredient) of this product per 100 gallons.
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)	Apply 14.2-16.8 fluid ounces (0.08-0.10 pound active ingredient) of this product per 100 gallons.
USE RESTRICTIONS - Maximum applications: 5 per calendar year. - Do NOT apply more than once every 7 days. - Only to be used on non-bearing or vegetative blueberries and other bush and caneberries (within crop subgroups 13-07A and B). - Pre-Harvest Interval (PHI) = 1 day - Do NOT apply more than 84 fluid ounces (0.5 pound active ingredient) per acre per calendar year regardless of application method.	

STRAWBERRIES and OTHER LOW GROWING BERRIES (within Crop Sub-Group 13-07G) Grown for Propagation [Non-Bearing or Vegetative] – Bearberry; Bilberry; Blueberry, Lowbush; Cloudberry; Cranberry; Lingonberry; Muntries; Partridgeberry; Strawberry and cultivars, varieties, and/or hybrids of these

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. 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
Blueberry Maggot, Spanworm, Cherry Fruitworm, Cranberry Fruitworm, Flea Beetle, Japanese Beetle, Oblique Banded Leaf Roller, Plantbugs (<i>Lygus</i> spp.), Sap Beetles, Thrips, Whiteflies, Fireworm (suppression only), Gypsy Moth, Sparganothis Fruitworm, Cranberry Tipworm	Apply 6.0-12.6 fluid ounces (0.036-0.07 pounds active ingredient) of this product per 100 gallons.
Aphids, Leafhoppers, Spittlebug	Apply 12.6-21.8 fluid ounces (0.07-0.13 pounds active ingredient) of this product per 100 gallons.
USE RESTRICTIONS - Maximum applications: 2 per calendar year. - Do NOT apply more than once every 7 days. - Do NOT exceed 3 crops per calendar year. - Only to be used on Strawberries and other Low Growing Berries (within crop Group 13-07G) Grown for Propagation [Non-Bearing or Vegetative] - Pre-Harvest Interval (PHI) = 1 day - Do NOT apply more than 43.8 fluid ounces (0.26 pound active ingredient) per acre per calendar year regardless of application method.	



VEGETABLE TRANSPLANTS

COLE CROPS - Broccoli, Chinese Broccoli (Gai Lon), Broccoli Raab (Rapini), Brussels Sprouts, Cabbage, Chinese Cabbage (Bok Choy, Napa), Chinese Mustard Cabbage (Gai Choy), Cavalo Broccoli, Cauliflower, Collards, Kale, Kohlrabi, Mizuna, Mustard Greens, Mustard Spinach, Rape Greens

CUCURBITS - Chayote (fruit), Chinese Waxgourd (Chinese Preserving Melon), Citron Melon, Cucumber, Gherkin, Gourd (edible), *Mormordica* spp., Muskmelon (hybrid and/or cultivars of *Cucumis melo*), Pumpkin, Squash (summer and winter), Watermelon

FRUITING VEGETABLES - Eggplant, Groundcherry, Pepino, Pepper (Bell Pepper, Chili Pepper, Cooking Pepper, Pimento, Sweet Pepper), Tomatillo, Tomato

LEAFY VEGETABLES - Amaranth, Arugula, Cardoon, Celery, Chinese Celery, Celtuce, Chervil, Chrysanthemum (edible leaved, garland), Corn Salad, Cress (garden, upland), Dandelion, Dock, Endive, Florence, Fennel, Lettuce (head, leaf), Orach, Parsley, Purslane (garden, winter), Radicchio, Rhubarb, Spinach (leaf, vine, New Zealand), Swiss Chard

ONIONS AND OTHER BULB VEGETABLES - Chives, fresh leaves; Chinese Chives, fresh leaves; Daylily bulbs, Elegans Hosta, Fritillaria leaves and bulbs; Bulb Garlic; Great Headed Bulb Garlic, Serpent Bulb Garlic; Kurrat; Lady's Leek, Leek; Wild Leek; lily bulb; Beltsville bunching onion; bulb onion; Chinese bulb onion; fresh onion; green onion; macrostem onion; pearl onion; potato bulb onion; treetops onion; Welsh onion tops; shallot bulb and fresh leaves; and cultivars, varieties, and/or hybrids.

Base application timing on the pest pressure and in consultation with local agricultural experts. *Test any surfactants used with this product prior to widespread use to verify plant damage will not occur. For optimal pest control, thorough crop coverage is essential and use whatever water volume is needed to ensure thorough coverage.*

Use the higher rate in the range when pest pressures are severe.

SPECIFIC INSTRUCTIONS

PEST	APPLICATION USE RATE	USE INSTRUCTIONS
Aphids (including Cotton, Green Peach, Melon and Woolly), Psyllids	Apply 4.0 fluid ounces of this product combined with a non-ionic spreader/sticker adjuvant per 100 gallons.	
Leafhoppers (including Glassy Wing Sharpshooter and Potato), Mealybugs (including Citrus, Longtail, Maderia, Obscure and Pink Hibiscus)	Apply 8.5 fluid ounces of this product per 100 gallons.	Mealybug control may be enhanced if a surfactant is used with this product.
Caterpillars (including Asian Cycad Scale, Cabbage Looper, Diamondback Moth, Fall Army Worm, Gypsy Moth, Southern Army Worm and Tobacco Bud Worm), Hard and Soft Scales (including Caribbean Black Scale, Cottony Maple Scale, Euonymus Scale, Fletcher Scale, Florida Wax Scale, Green Shield Scale, Indian Wax Scale, Oyster Shell Scale, Pine Needle Scale, San Jose Scale and Tea Scale), Plant Bugs , Whiteflies (including Banded, Giant, Greenhouse, Silverleaf and Sweet Potato)	Apply 8.5-16.5 fluid ounces of this product per 100 gallons.	Adult whitefly control may be enhanced if a surfactant or pyrethroid insecticide labeled for this use is combined with this product.
Swede Midge	Apply 8.5-16.5 fluid ounces of this product per 100 gallons.	By making a preventive application, the likelihood of rapid increases in Swede Midge population later in the season is diminished.
Crane Fly Larvae, Fungus Gnat Larvae	Apply 8.5-16.5 fluid ounces of this product per 100 gallons as a directed spray to the soil being sure that the upper ½-1 inch of the soil is thoroughly moistened.	
Thrips (including Citrus, Cotton, Palm, and Western Flower Thrips), adult Leaf Eating Beetles (including European Chafer, Japanese Beetle and Oriental Beetle), Strawberry Weevils	Apply 12.5-25.3 fluid ounces of this product per 100 gallons.	Control may be enhanced if a surfactant is used with this product.
Leaf Miners (including Chrysanthemum and Citrus Leaf Miner)	Apply 21.0-25.3 fluid ounces of this product per 100 gallons.	Control may be enhanced if a surfactant is used with this product.

(continued)



Manufactured for:
Atticus, LLC
5000 CentreGreen Way Suite 100
Cary, NC 27513

PEST	APPLICATION USE RATE	USE INSTRUCTIONS
USE RESTRICTIONS - Do NOT apply more than once per crop prior to transplanting. - Apply only to listed vegetables being grown as transplants. Apply only before transplants are sold. - The total amount of active ingredient applied to a crop in a single season <i>including pre-transplant applications</i> must NOT exceed the maximum post-transplant amount of active ingredient that may be applied to that crop in a single year. - Pre-Harvest Interval (PHI) = 7 days - Do NOT apply more than 25.3 fluid ounces (0.15 pounds active ingredient) per acre per crop regardless of application method. - Do NOT apply more than 92.5 fluid ounces (0.55 pounds active ingredient) per acre per calendar year of any acetamiprid containing product regardless of application method on any outdoor field or in any greenhouse, shadehouse, or lathhouse.		

TOMATOES, GROWN IN GREENHOUSE (mature plants only)

Apply this product to mature tomatoes grown **ONLY** in no-soil media (such as perlite, rock wool or vermiculite) in greenhouses to control the pests listed below. *While this product has been shown to be safe for use on many varieties of tomatoes, some varieties may be sensitive and therefore, conduct a test on a few plants prior to widespread use.*

SPECIFIC INSTRUCTIONS

PEST	APPLICATION USE RATE	USE INSTRUCTIONS
Aphids, Psyllids, Thrips, Whiteflies	Apply 1.25 ounces per 1000 plants to the roots of plants.	Applications may be made as a soil drench or using drip- or micro-irrigation systems, or hand-held or motorized calibrated irrigation equipment directed to the plant roots for control of listed pests on mature tomatoes.
USE RESTRICTIONS - Do NOT apply more than once per crop regardless of application method. - Pre-Harvest Interval (PHI) = 1 day - Do NOT apply more than 0.075 pounds of active ingredient per acre per crop based on 10,000 plants per acre.		

Application Instructions For Basal Bark Treatment of Trees or Non Bearing Fruit and Nut

1. Depending on insect target, treatments may begin at bud break through full leaf expansion in early to mid-Spring. Consult your local extension service recommendations for the target pest. Make applications as required for preventative or curative management of pest.
2. Using a low pressure (10-25 PSI), small volume handcan or backpack sprayer, mix 12.5 – 25.3 oz of this product per gallon of water with an organo-silicate adjuvant according to the adjuvant product instructions. Apply as a full coverage spray starting at the top of the application zone and working downwards to the root flair. One gallon should treat approximately 36-42 total inches of treatment DBH depending on bark surface.
3. Do not apply to wet bark, or during rainfall, or if rain is expected within 12 hours after application.
4. Do not apply as a drench to the soil.

BASAL BARK TREATMENT OF ORNAMENTAL OR NON-BEARING FRUIT AND NUT TREES

This product may be applied as a basal bark treatment in cases where spray application is not feasible (for example in environmentally sensitive or difficult to reach areas). Use the following table to determine the mix ratios for volumes smaller than 100 gallons:

Milliliters (mL) of this Product to Use based on Label Rate and Tank Size						
Tank Size	Label Rate (fluid ounces / 100 gallons)					
	4.0	8.5	12.5	16.5	21.0	25.3
3 Gallons	3.6	7.5	11.1	14.7	18.9	22.5
5 Gallons	6.0	12.5	18.5	24.5	31.5	37.5
10 Gallons	12.0	25.0	37.0	49.0	63.0	75.0
25 Gallons	30.0	62.5	92.5	122.5	157.5	187.5



SPECIFIC INSTRUCTIONS

PEST	APPLICATION USE RATE	USE INSTRUCTIONS
Borers (including Flathead Apple Borer but NOT Emerald Ash Borers or Asian Longhorned Beetles), Scale Insects (including Azalea Bark Scale, Calico Scale, Gloomy Scale), Hemlock Woolly Adelgids	Apply 12.5-25.3 fluid ounces per gallon of water in mid-Spring between bud break and full leaf expansion.	Consult with your local agricultural expert to determine the appropriate timing for the pest being targeted and the management goals. Apply 3-4 fluid ounces of spray (depending on bark roughness) per inch of tree Diameter Breast High (DBH = 4.5 feet) using a low-pressure (10-25 PSI) handcan or backpack sprayer as a directed spray that completely wets the application area starting approximately 8 feet up the trunk down to the exposed root flair. Depending on bark texture, one gallon of solution should treat approximately 36-42".
USE RESTRICTIONS - Do NOT apply to wet bark or when rain is occurring or expected within 12 hours of application. - Do NOT apply to the soil as a drench. - Not for use on Emerald Ash Borers or Asian Longhorn Beetle.		

TREE INJECTION TREATMENT OF ORNAMENTAL OR NON-BEARING FRUIT AND NUT TREES

This product may be applied as an injection treatment using an injection system (like the Arborjet IV, Wedgle Direct-Inject or other compatible systems) in cases where spray application is not feasible (for example in environmentally sensitive or difficult to reach areas).

SPECIFIC INSTRUCTIONS

PEST	APPLICATION USE RATE AND INSTRUCTIONS
Borers (including Flathead Apple Borer but NOT Emerald Ash Borers or Asian Longhorned Beetles), Scale Insects (including Azalea Bark Scale, Calico Scale, Gloomy Scale), Hemlock Woolly Adelgids	More than one injection site may be necessary, refer to the instructions for the specific injection equipment being used. Determine the number of injection holes by doing the following: 1) Measure diameter breast high (DBH) using a standard forestry tape. 2) For circumference, divide by six to determine the number of injection holes. 3) For diameter, divide by two to determine the number of holes. Consult with your local agricultural expert to determine the appropriate timing for the pest being targeted and the management goals. Space injections evenly around the tree in active sapwood in the root buttress region being sure to avoid root valleys. Application Instructions 1. Depending on insect target, treatments may begin at bud break through full leaf expansion in early to mid-May based on local extension service recommendations. Make applications as required for preventative or curative management of pest. 2. Mix 9 - 12 milliliters (mL) of this product per inch DBH of target tree in sufficient water for use following the manufacturer's instructions for the specific injection device.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Do not store in or around the home. Store unused product in a cool, ventilated, dry, locked area. Do not allow prolonged storage in areas where temperatures frequently exceed 115° F (46° C). NEVER TRANSFER THIS PRODUCT TO ANOTHER CONTAINER FOR STORAGE.

PESTICIDE DISPOSAL: Contamination with this product will render water, food or feed 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 HANDLING:

For rigid, non-refillable containers (≤ 5 gallons): Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration.

For rigid, non-refillable containers (> 5 gallons): Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Offer for recycling, if available. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration.

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials, resistant strains or other influencing factors in the use of the product, which are beyond the control of Atticus, LLC or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold Atticus, LLC and Seller harmless for any claims relating to such factors.

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EPA 20160810A



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Atticus, LLC
5000 CentreGreen Way Suite 100
Cary, NC 27513