

**GROUP 4A INSECTICIDE**

# TriStar<sup>®</sup> 8.5 SL

## Insecticide

**ACTIVE INGREDIENT:**

Acetamiprid ..... 8.5% by wt.

**INERT INGREDIENTS:**

..... 91.5% by wt.

**TOTAL:**

..... 100.0% by wt.

Contains 0.76 pounds of acetamiprid per gallon

**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 INSIDE BOOKLET FOR FIRST AID AND  
ADDITIONAL PRECAUTIONARY STATEMENTS**

For MEDICAL and  
TRANSPORTATION  
Emergencies ONLY  
Call 24 Hours A Day  
1-800-424-9300

EPA Reg. No. 8033-106-1001

Distributed By  
Cleary Chemicals, LLC  
11901 S. Austin Avenue  
Alsip, IL 60803



<b>FIRST AID</b>	
<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 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 further treatment advice.</li> </ul>
<p>For MEDICAL Emergencies Call CHEMTREC at 1-800-424-9300            Have the product container or label with you when calling a poison control center or doctor, or going for treatment.</p>	
<p>NOTE TO PHYSICIAN: There is no specific antidote. All treatment should be based on observed signs and symptoms of distress in the patient. Overexposure to materials other than this product may have occurred.</p>	

## 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. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Keep out of reach of children and domestic animals.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear long-sleeved shirt and long pants, shoes plus socks, and chemical resistant gloves made out of: barrier laminate, butyl rubber (≥ 14 mil), nitrile rubber (≥ 14 mil), neoprene rubber (≥ 14 mil), polyvinyl chloride (PVC) (≥ 14 mil), or viton (≥ 14 mil).

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.

## 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 actively visiting 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.

### 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 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 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 - 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.

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. 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).

## **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.**

Not for woodlands 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.

## **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 DISPOSAL**

Non-refillable container. Do not reuse or refill this container. Triple rinse container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank 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. Offer for recycling, if available.

## **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.

### **Specific Requirements**

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 shut down.
5. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where 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. Remove scale, pesticide residue, and other foreign matter from the chemical tank and entire injector system. Flush with clean water.
2. Prepare a suspension of product in the mix tank or stock bucket. Fill the tank with 3/4 of the desired amount of water. Start agitation and add the required amount of product to the solution along with the remaining volume of water.
3. Maintain a gentle agitation in the mix tank during application to assure a uniform suspension. Follow mixing instructions and tank mixing instructions previously indicated.
4. Start system and then uniformly inject the suspension of TriStar 8.5 SL into the irrigation line so as to deliver the desired rate per acre. Allow sufficient time for pesticide to be flushed through all lines and all nozzles before turning off irrigation system.
5. Greater accuracy in calibration and distribution will be achieved by injecting a larger volume of a more dilute suspension per unit time.
6. The suspension of Tristar 8.5 SL should be injected with a positive displacement pump into the main line ahead of a right angle turn to insure adequate mixing.

### **Sprinkler (Overhead) Chemigation**

Observe all instructions in the Generic, Specific and Non-Specific requirements sections above and the following additional requirements:

1. The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
2. The 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.

Set sprinkler system to deliver 1/10 to 1/4 inches of water per acre. Volumes of water higher than this may reduce efficacy. Application of more than specified quantities of irrigation water per acre may result in decreased product performance. Where sprinkler distribution patterns do not overlap sufficiently, unacceptable insect control may result.

When system connections or fittings leak, when nozzles do not provide uniform distribution or when lines containing the product cannot be flushed and must be dismantled and drained in a center pivot system, block the nozzle set nearest the well pivot injection unit to prevent spray being applied to this area. Allow sufficient time for pesticides to be flushed through all lines and all nozzles before turning off irrigation water.

### **Drip (Trickle, Spaghetti tube) Chemigation**

Observe all instructions in the Generic, Specific and Non-Specific requirement.

#### **COMPATIBILITY**

TriStar 8.5 SL Insecticide, when diluted with an equal volume of water, is physically compatible with a wide range of commonly used spray products, but the full range of compatibilities under local conditions is not known. Therefore, it is essential that before using TriStar 8.5 SL Insecticide in any tank mixture the compatibility of the mixture be established. Add a small amount of this product to an equal volume of water in a small container and then add the other pesticide or spray product and mix thoroughly. **DO NOT USE MIXTURES THAT CURDLE, PRECIPITATE, OR GREASE. FOR BEST RESULTS, SPRAY MIXTURES SHOULD BE USED IMMEDIATELY AFTER MIXING WITH ADEQUATE AGITATION.**

#### **SPECIFIC USE DIRECTIONS**

INTENDED FOR USE BY PROFESSIONAL APPLICATORS FOR USE ON ORNAMENTAL PLANTS, DECIDUOUS AND EVERGREEN TREES, SHRUBS, AND VINES, ANNUAL AND PERENNIAL FLOWERING PLANTS, AND VEGETABLE TRANSPLANTS GROWN OUTDOORS (LANDSCAPES, FIELD, NURSERY OR CONTAINER) AND IN GREENHOUSES, HOOP HOUSES, COLD FRAMES, SHADEHOUSES AND LATHHOUSES: bedding plants, flowers grown for cuttings, foliage plants, potted flowering plants, ornamental trees and seedlings, conifer seedlings, listed vegetable transplants, non-bearing fruit and nut trees and the following non-bearing propagated crops: strawberries, low growing berries, blueberries and other bush and cane berries. (Non-bearing crops are perennial crops that will not produce a harvestable raw agricultural commodity during the season of application). Do not apply to bearing fruit and nut trees.

For control of insect pests, apply either as foliar broadcast spray to obtain thorough and uniform spray coverage of the plants or via a basal bark or injection treatment. For foliar broadcast sprays, choose a finished spray volume appropriate for the size of the plants and amount of foliage which will provide thorough coverage throughout the canopy. For optimum control, allow at least 6 hours before overhead irrigation of foliage. Do not allow public use of treated area during application.

FOR FOLIAR BROADCAST SPRAYS.

Mix TriStar 8.5 SL Insecticide with sufficient water and apply as a foliar spray to obtain thorough and uniform spray coverage of the plants. Choose a finished spray volume appropriate for the size of the plants and amount of foliage which will provide thorough coverage throughout the canopy. Apply as soon as insects reach treatment thresholds. See resistance management section if multiple sprays are needed.

TriStar 8.5 SL Insecticide mixes quickly in water. This product has been found to be compatible with many commonly used surfactants, miticides and insecticides. Check physical compatibility using the correct proportion of products when combining products without prior history of use.

Note: Since plant varieties are numerous and constantly changing and may react differently at various sites, test the product and any tankmixes on a small scale before making large-scale applications if there is not local experience.

**ORNAMENTAL AND FLOWERING PLANTS**

<b>PESTS</b>	<b>OUNCES of TriStar 8.5 SL Insecticide per 100 GALLONS*</b>	<b>COMMENTS</b>
<b>Aphids</b> , such as Green Peach, Woolly, Melon, and Cotton aphid <b>European pine sawfly</b> <b>Psyllids</b>	4.0	Apply as a full coverage foliar spray with a non-ionic spreader-sticker adjuvant. When mixing with surfactant treat a small area first to make sure the surfactant does not cause phytotoxicity.
<b>Tentiform leaf miner</b> <b>Mealybugs</b> , such as Citrus, Obscure, Longtail, Pink Hibiscus, and Maderia mealybugs <b>Leafhoppers</b> , such as Glassy Wing Sharpshooter and Potato Leaf Hopper	8.5	Tank mixing with a surfactant may improve the control of mealybugs. Tank mixing with a surfactant or a pyrethroid may improve control of adult whiteflies. When mixing with surfactants, treat a small area first to make sure the surfactant does not cause phytotoxicity.
<b>Caterpillars</b> , such as Gypsy Moth, Tobacco Bud Worm, Fall Army Worm, Southern Army Worm, Cabbage Looper, and Diamondback Moth <b>Hard and Soft Scales</b> , such as Caribbean Black Scale, Pine Needle Scale, Green Shield Scale, San Jose Scale, Oyster Shell Scale, Tea Scale, Fletcher Scale, Florida Wax and Indian Wax Scales, Cottony Maple Scale, Euonymus Scale and Asian Cycad Scale <b>Plant bugs, Adelgids</b> <b>Whiteflies</b> , such as Greenhouse, Sweet Potato, Silverleaf, Banded, and Giant	8.5 – 16.5**	

(continued)



**ORNAMENTAL AND FLOWERING PLANTS** *(continued)*

<b>PESTS</b>	<b>OUNCES of TriStar 8.5 SL Insecticide per 100 GALLONS*</b>	<b>COMMENTS</b>
<b>Swede Midge</b>	8.5 – 16.5**	Apply as a preventative spray to control the first generations if Swede Midge has been found in your area. Preventative applications will decrease the chance of quick population increases later in the season.
<b>Fungus gnat larvae, Crane fly larvae</b>	8.5 – 16.5**	Apply as a directed spray to thoroughly wet the upper ½ to 1 inch of soil media.
<b>Citrus thrips</b> <b>Other thrips</b> , such as Cotton, Palm, and Western Flower thrips <b>Leaf Eating Beetles</b> (adults), such as Japanese Beetle, European Chafer and Oriental Beetle**, <b>Strawberry Weevils</b>	12.5 – 25.3**	Tank mixing with a surfactant will improve control. When mixing with surfactant treat a small area first to make sure the surfactant does not cause phytotoxicity.
<b>Leaf miners</b> , such as Chrysanthemum and Citrus Leaf Miner	21.0 – 25.3**	Rotate or tank mix with Avid®, Conserve™, Pedestal™, Distance®, Enstar®, or Talus®. Tank mixing with a surfactant may improve control. When mixing with surfactant treat a small area first to make sure the surfactant does not cause phytotoxicity.

\*Product can be applied with the water volume needed to provide thorough coverage.

\*\*Use the higher rate when insect pressure is high.

**USE RESTRICTIONS FOR ORNAMENTAL AND FLOWERING PLANTS**

- Do not make more than 4 applications per year.
- Do not reapply more than once every 7 days. To determine if application is necessary, monitor pest densities. Consult local extension experts for thresholds.
- Do not apply more than 25.3 ounces of TriStar 8.5 SL Insecticide per acre (0.15 lbs ai/A) in a single application.
- Do not apply more than 92.5 ounces of TriStar 8.5 SL Insecticide per acre (0.55 lb ai/A) per year.
- Do not apply to bearing fruit trees.

**BLUEBERRIES AND OTHER BUSH AND CANE BERRIES** (within Crop Sub Groups 13 - 07A and B) Grown for Propagation [Non-Bearing or Vegetative]

CROP	PEST	Rate per 100 gallons	USE DIRECTIONS
		Fluid Ounces of TriStar 8.5 SL	
<b>BLUEBERRIES AND OTHER BUSH BERRIES</b> (within Crop Sub Group 13 - 07B) Aronia berry, blueberry [highbush and lowbush], buffalo Currant, Chilean guava, currant red and black, elderberry, European barberry, gooseberry, cranberry [highbush], edible honeysuckle, huckleberry, jostaberry, Juneberry, lingonberry, native currant [salal, sea, buckthorn and cultivars, varieties, and/or hybrids of these]	Aphids Leafhoppers	7.9 – 16.8	Begin applications when treatment thresholds have been reached.  Thorough coverage is important to obtain optimum control.  Aphid and thrips species may differ in susceptibility to this product. If you are unsure of the aphid or thrips species present and its susceptibility use the higher rates within the listed rate range.
	Whitefly	12.6 – 16.8	
	Japanese Beetle, Blueberry Maggot, Sap Beetles , Tarnished Plant Bug, Strawberry Rootworm, Cranberry Fruitworm, Cherry Fruitworm, Flea Beetle, Spanworm, Thrips, Blueberry Gall Midge, Western Raspberry Fruit Worm (adult)	14.2 – 16.8	
<b>CANE BERRIES</b> (within Crop Sub Group 13 - 07A) Blackberry, Loganberry, Raspberry (black and red), wild raspberry and cultivars varieties and/or hybrids of these.			

**RESTRICTIONS:** Blueberries and other Bush and Cane Berries (within Crop Sub Groups 13 - 07A and B) [Non-Bearing or Vegetative]

- Do not make more than 5 applications per season.
- Do not apply more than once every 7 days.
- Do not apply less than 1 day before harvest (PHI = 1 day).
- Do not exceed a total of 0.5 lb. active ingredient (94.1 ozs product) per acre per growing season.

**STRAWBERRIES AND OTHER LOW GROWING BERRIES** (within Crop Sub Group 13 - 07G) grown for propagation  
[Non-bearing or Vegetative]

CROP	PEST	Rate per 100 gallons	USE DIRECTIONS
		Fluid Ounces of TriStar 8.5 SL	
<b>STRAWBERRIES AND OTHER LOW GROWING BERRIES</b> (within Crop Sub Group 13  Bearberry, Bilberry, Lowbush Blueberry, Cloudberry, Cranberry, Lingonberry, Muntries, Partridgeberry; and cultivars, varieties, and/or hybrids of these	Aphids Leafhoppers Spittlebug	12.6 – 21.8	Aphid and thrips species may differ in susceptibility to this product. If you are unsure of the species present and its susceptibility use the higher rates within the listed rate range. Begin applications when treatment thresholds have been reached. Use the higher rates under conditions of heavy pest pressure. Thorough coverage is important to obtain optimum control.
	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	6.0 – 12.6	

**RESTRICTIONS:** STRAWBERRIES AND OTHER LOW GROWING BERRIES (within Crop Sub Group 13 - 07G)  
[Non-Bearing or Vegetative]

- Do not exceed a total of 48.9 oz. of Tristar 8.5 SL Insecticide (0.26 lb ai) / A during each growing season.
- Do not make more than 2 applications per growing season.
- Do not apply more than once every 7 days.
- Do not apply less than 1 day before harvest (PHI = 1 day).

**VEGETABLE TRANSPLANTS**

<b>VEGETABLE TRANSPLANTS</b>	<b>PESTS</b>	<b>OUNCES of TriStar 8.5 SL Insecticide per 100 GALLONS*</b>	<b>COMMENTS</b>
<p><b>LEAFY VEGETABLES (within Crop Group 4)</b>                      Amaranth, Arrugula, 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</p>	<p><b>Aphids</b>, such as Green Peach, Woolly, Melon, and Cotton aphid  <b>Psyllids</b></p>	4.0	Apply as a full coverage foliar spray with a non-ionic spreader-sticker adjuvant. When mixing with surfactant treat a small area first to make sure the surfactant does not cause phytotoxicity.
<p><b>FRUITING VEGETABLES (within Crop Group 8)</b>                      Eggplant, Groundcherry, Pepino, Pepper (bell pepper, chili pepper, cooking pepper, pimento, sweet pepper), Tomatillo, Tomato</p>	<p><b>Mealybugs</b>, such as Citrus, Obscure, Longtail, Pink Hibiscus, and Maderia mealybugs  <b>Leafhoppers</b>, such as Glassy Wing Sharpshooter and Potato Leaf Hopper</p>	8.5	Tank mixing with a surfactant may improve the control of mealybugs. Tank mixing with a surfactant or a pyrethroid may improve control of adult whiteflies. When mixing with surfactants, treat a small area first to make sure the surfactant does not cause phytotoxicity.
<p><b>COLE CROPS (within Crop Group 5)</b>                      Broccoli, Chinese Broccoli (gai lon), broccoli raab (rapini), Brussel Sprouts, Cabbage, Chinese Cabbage (bok choy, napa), Chinese Mustard Cabbage (gai choy), Cavalo broccolli, Cauliflower, Collards, Kale, Kohlrabi, Mizuna, Mustard Greens, Mustard Spinach, Rape Greens</p>	<p><b>Caterpillars</b>, such as Gypsy Moth, Tobacco Bud Worm, Fall Army Worm, Southern Army Worm, Cabbage Looper, and Diamondback Moth  <b>Hard and Soft Scales</b>, such as Caribbean Black Scale, Pine Needle Scale, Green Shield Scale, San Jose Scale, Oyster Shell Scale, Tea Scale, Fletcher Scale, Florida Wax and Indian Wax Scales, Cottony Maple Scale, Euonymus Scale and Asian Cycad Scale  <b>Plant bugs</b>,  <b>Whiteflies</b>, such as Greenhouse, Sweet Potato, Silverleaf, Banded, and Giant</p>	8.5 – 16.5**	

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**VEGETABLE TRANSPLANTS** (continued)

VEGETABLE TRANSPLANTS	PESTS	OUNCES of TriStar 8.5 SL Insecticide per 100 GALLONS*	COMMENTS
<b>CUCURBITS (within Crop Group 9):</b> Chayote (fruit), Chinese waxgourd (Chinese preserving melon), Citron melon, Cucumber, Gherkin, Gourd (edible), <i>Mormordica</i> spp., Muskmelon (hybrid and/or cultivars of <i>Cucumis melo</i> ), Pumpkin, Squash (summer and winter), Watermelon	<b>Swede Midge</b>	8.5 – 16.5**	Apply as a preventative spray to control the first generations if Swede Midge has been found in your area. Preventative applications will decrease the chance of quick population increases later in the season.
	<b>Fungus gnat larvae, Crane fly larvae</b>	8.5 – 16.5**	Apply as a directed spray to thoroughly wet the upper ½ to 1 inch of soil media.
<b>ONIONS AND OTHER BULB VEGETABLES (within Crop Group 3-07):</b> 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 of these.	<b>Thrips</b> , such as Citrus Cotton, Palm, and Western Flower thrips <b>Leaf Eating Beetles</b> (adults), such as Japanese Beetle, European Chafer and Oriental Beetle**, <b>Strawberry Weevils</b>	12.5 – 25.3**	Tank mixing with a surfactant will improve control. When mixing with surfactant treat a small area first to make sure the surfactant does not cause phytotoxicity.
	<b>Leaf miners</b> , such as Chrysanthemum and Citrus Leaf Miner	21.0 – 25.3**	Tank mixing with a surfactant may improve control. When mixing with surfactant treat a small area first to make sure the surfactant does not cause phytotoxicity.

\*Product can be applied with the water volume needed to provide thorough coverage.

\*\*Use the higher rate when insect pressure is high.

**USE RESTRICTIONS FOR VEGETABLE TRANSPLANTS:**

- Do not make more than 1 application per crop prior to transplanting.
- Do not apply more than 25.3 ounces of TriStar 8.5 SL Insecticide (0.15 lb a.i.) per acre per crop.
- Do not apply more than 0.55 lb a.i. per acre per year of any product containing acetamiprid on any outdoor field or in any greenhouse, shadehouse, or lathhouse.
- Do not harvest for food use within seven days following the last application (7 day PHI).
- For vegetable transplants, the total maximum seasonal a.i. use rate for each crop, including pre-transplant applications, cannot exceed the maximum post-transplant seasonal a.i. use rate for each respective crop.

Use the following Chart to convert the amount of product per 100 gallons above into smaller spray volume units to accommodate smaller volume application equipment.

**Conversion Guide for Small Volume (less than 100 gallon) Application Equipment**

Label Rates Ounces/100 Gallon	Milliliters (mL) TriStar 8.5 SL per Volume			
	3 Gal Tank	5 Gal Tank	10 Gal Tank	25 Gal Tank
<b>4.0</b>	3.6	6.0	12.0	30.0
<b>8.5</b>	7.5	12.5	25.0	62.5
<b>12.5</b>	11.1	18.5	37.0	92.5
<b>16.5</b>	14.7	24.5	49.0	122.5
<b>21.0</b>	18.9	31.5	63.0	157.5
<b>25.3</b>	22.5	37.5	75.0	187.5

**FOR BASAL BARK TREATMENT OF TREES (ORNAMENTAL OR NON-BEARING FRUIT AND NUT)**

TriStar 8.5 SL Insecticide may be applied as an external basal bark application to ornamental and non-bearing fruit and nut trees for control of borers (such as Flathead Apple Borer but excluding Emerald Ash Borers or Asian longhorned beetles), scale insects (such as Calico Scale, Gloomy Scale, Azalea Bark Scale) and Hemlock Woolly Adelgids in hard to spray or environmentally sensitive areas. This application involves wetting the bark of the tree starting from a height of approximately 8 feet downwards to the exposed root flair with a directed spray to completely wet the application area. Depending on the specific bark characteristics, use 3-4 fluid ounces of spray per inch Diameter Breast Height (DBH at 4.5 feet) of the intended target.

**Application Instructions**

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 TriStar 8.5 SL 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.

#### FOR TREE INJECTION APPLICATION TO ORNAMENTAL OR NON-BEARING FRUIT AND NUT TREES

TriStar 8.5 SL Insecticide may be applied by injection directly into ornamental or non-bearing fruit and nut trees for control of borers (such as Flathead Apple Borer but excluding Emerald Ash Borers or Asian longhorned beetles), scale insects (such as Calico Scale, Gloomy Scale, Azalea Bark Scale) and Hemlock Woolly Adelgids in hard to spray or environmentally sensitive areas using the Arborjet IV, Wedgle Direct-Inject or similar compatible systems.

#### General Directions:

Depending on the injection equipment used, multiple injection sites may be required. To determine the initial number of injection holes, measure the DBH using a standard forestry tape measure. For circumference, divide the measurement by six (6) to determine the number of holes needed. For Diameter, divide the measurement by two (2) to determine the number of holes needed. Initial injection sites should be in active sapwood, evenly spaced around the tree at the root buttress region and avoiding the root valleys. Follow manufacturer instructions for the specific device for proper injection practices and to minimize tree damage.

#### 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 TriStar 8.5 SL Insecticide per inch DBH of target tree in sufficient water for use following the manufacturer's instructions for the specific injection device.

#### FOR USE IN GREENHOUSE-GROWN TOMATO PRODUCTION

TriStar 8.5 SL Insecticide may be applied by injection into drip-irrigation or micro-irrigation (spaghetti tube or emitter) systems, soil drenching, or by hand-held or motorized calibrated or motorized calibrated irrigation equipment directed to the plant roots for control of various insect pests on mature tomato plants grown in greenhouses. Application should be made only to mature tomato plants grown in non-soil media such as rock wool, vermiculite, perlite, or other soil-less media. Many cultivars of vegetables show good safety to TriStar 8.5 SL Insecticide. However, some cultivars may exhibit sensitivity and therefore treatment of a few plants is recommended prior to treating an entire greenhouse.

<b>Crop</b>	<b>Pest</b>	<b>Ounces of TriStar 8.5 SL Insecticide Per 1000 Plants</b>	<b>Comments</b>
Greenhouse-grown tomatoes (mature plants)	Whiteflies Psyllids Thrips Aphids	1.25	Make the application when insect pressure exceeds threshold levels.

#### Greenhouse-grown Tomatoes

#### Use Restrictions

- Do not make more than one (1) application per crop.
- Do not apply less than one (1) day before harvest.
- Do not exceed a total of 0.075lb ai/acre/crop based on 10,000 plants per acre.

## RESISTANCE MANAGEMENT

Some insects are known to develop resistance to insecticides after repeated use. As with any insecticide, the use of this product should conform to resistance management strategies established for the use area. Avoid treating these insects with consecutive applications of insecticides within the same class of chemistry. Resistance to other neonicotinoids, such as Merit and Marathon may result in resistance to TriStar 8.5 SL Insecticide. Therefore, to minimize the potential for neonicotinoid resistance, rotate with other classes of insecticides. Consult your agricultural advisor for resistance management strategies and recommended pest management practices for your area.

**ENDANGERED SPECIES NOTICE:** Under the Endangered Species Act, it is a Federal Offense to use any pesticide in a manner that results in the death of a member of an endangered species.

Consult your local county bulletin, County Extension Agent, or Pesticide State Lead Agency for information concerning endangered species in your area.

### **IMPORTANT: READ BEFORE USE**

Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product container at once. By using this product user or buyer accepts the following Conditions, Disclaimer of Warranties and Limitations of Liability.

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