

Not for Sale, Sale Into, Distribution and/or Use in Nassau, Suffolk, Kings, Queens Counties of New York State unless permitted under FIFRA Section 24(c) Special Local Need Registration.

CHLORANTRANILIPROLE	GROUP	28	INSECTICIDE
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# SEARCHER® INSECTICIDE

## INSECTICIDE

For foliar and systemic control of listed insect pests in commercial ornamental nurseries and greenhouses; and commercial sod farms.

For foliar and systemic control of listed insect pests in or on golf courses; sports and recreational turf; lawns and landscaped areas on and around residential, commercial and institutional properties; and interior plantscapes.

Active Ingredient:

Chlorantraniliprole\*: ..... 18.4%

Other Ingredients ..... 81.6%

Total: ..... 100.0%

\*CAS No. 500008-45-7

Chlorantraniliprole belongs to the anthranilic diamide chemical class.

Searcher® Insecticide is formulated as a suspension concentrate that contains 1.67 lb chlorantraniliprole per gallon of product.

Product of USA

## KEEP OUT OF REACH OF CHILDREN

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.)

EPA Reg. No. 100-1489

EPA Est. No. 072344-MO-004

**SCP 1489B-L1 0124**

## 0.5 gallon (2 quarts)

Net Contents

Non-refillable Container

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## 1.0 FIRST AID

### FIRST AID

#### HOTLINE NUMBER

For 24-Hour Medical Emergency Assistance (Human or Animal)  
or Chemical Emergency Assistance (Spill, Leak, Fire, or Accident),  
Call 1-800-888-8372

## 2.0 PRECAUTIONARY STATEMENTS

### 2.1 Hazards to Humans and Domestic Animals

When used as directed, this product does not present a hazard to humans or domestic animals.

### 2.2 Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants.
- Shoes plus socks.

#### 2.2.1 USER SAFETY REQUIREMENTS

After the product has been diluted in accordance with label directions for use, shirt, pants, socks, and shoes are sufficient Personal Protective Equipment (PPE). Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

#### User Safety Recommendations

##### Users Should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Wash thoroughly with soap and water after handling.
- 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.

### 2.3 Environmental Hazards

This pesticide is toxic to aquatic invertebrates, oysters and shrimp. Do not apply directly to water. Drift and runoff may be hazardous to aquatic organisms in water adjacent to use sites.

#### 2.3.1 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 groundwater. This product is classified as having a high potential for reaching surface water via runoff for several months or more after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of chlorantraniliprole from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours.

#### 2.3.2 GROUNDWATER ADVISORY

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

## DIRECTIONS FOR USE

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

Read all label directions before use. All applications must be made according to the use directions that follow or exemptions under FIFRA (Supplemental Labels, Special Local Need Registration, FIFRA Section 18 exemptions).

For any requirements specific to your state or tribe, consult the state or tribal agency responsible for pesticide regulation.

Notify state and/or federal authorities and Syngenta immediately if you observe any adverse effects due to use of this product.

**FAILURE TO FOLLOW DIRECTIONS AND PRECAUTIONS ON THIS LABEL MAY RESULT IN CROP INJURY, POOR INSECT CONTROL, AND/OR ILLEGAL RESIDUES.**

Searcher Insecticide can be applied to use sites that are within the scope of the Worker Protection Standard for agricultural practice, 40 CFR part 170 (see **Section 6.0, Commercial Ornamental Plant Nurseries, Greenhouses, and Sod Farms**), and use sites that are outside of its scope (see **Section 7.0, Golf Courses, Lawns and Landscapes, and Interior Plantscapes**). Refer to the following boxes containing additional guidance regarding **Agricultural Use Requirements** and **Non-Agricultural Use Requirements**. Consult the respective sections for site-specific Use Restrictions.

**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 (sod farms included), 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 the label about personal protective equipment, restricted-entry interval, and notification to workers (as applicable).

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.

**Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 4 hours.**

**Exception:** If product is drenched or soil incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated. No REI is required following a soil-incorporated or a soil-drench application.

For early entry into 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, wear:

- Long-sleeved shirt and long pants
- 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, sod farms, forests, nurseries, or greenhouses.

Professional applications to golf courses, residential, industrial and commercial lawns and sports fields are not within the scope of the Worker Protection Standard.

Do not enter or allow others to enter the treated area until sprays have dried.

**3.0 PRODUCT INFORMATION**

**3.1 Use Sites**

Searcher Insecticide may be applied to control the insect pests that infest turfgrass and ornamental plants listed on the label. Searcher Insecticide may be applied to the following:

**3.1.1 USES SUBJECT TO WORKER PROTECTION STANDARDS (SECTION 6)**

- The following crops grown for production: Ornamental plants, vines, shrubs and trees; ornamental bulb, corn and tuber crops; conifers (including conifer nurseries) and Christmas trees; and non-bearing fruit and nut trees commercially produced in indoor nurseries; greenhouses; outdoor nurseries (both field-grown and containerized plants); shade houses, lath houses, and hoop houses; and retail nurseries.
- Turfgrass grown on commercial sod farms.

**3.1.2 USES NOT SUBJECT TO WORKER PROTECTION STANDARDS (SECTION 7)**

- Outdoor landscape ornamentals and interior plantscapes in or around residential, commercial, recreational and institutional properties.
- For use on plants and turfgrasses intended for aesthetic or recreational purposes or climatic modification in or around home lawns, residential dwellings, business and office complexes, shopping complexes, multi-family residential complexes, institutional buildings, airports, cemeteries, wildlife plantings, parks, playgrounds, schools, day-care facilities, golf courses, athletic fields, and other landscaped areas. Not for use on plants or turfgrass being grown for sale or other commercial use; commercial seed production; or for research purposes.

**3.2 Plant Safety**

Certain plant species or cultivars may be sensitive to the final spray solution. If local experience is not available, treat a small number of plants and observe for phytotoxicity for at least one week before treating the entire planting to ensure plant safety.

**3.3 Integrated Pest Management (IPM)**

Searcher Insecticide is recommended for IPM programs as it does not directly impact natural arthropod predator and parasitoid populations, including ladybird beetles, lacewings, minute pirate bugs and predatory mites. The feeding behavior of predatory beneficial arthropods will aid in extending natural control of other insect and mite pests and will reduce the possibility of secondary pest outbreaks. If Searcher Insecticide is tank-mixed with an insect control product that negatively impacts beneficial arthropods, the full benefit of Searcher Insecticide to the IPM program may not be realized.

**3.4 Resistance Management**

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For resistance management, Searcher Insecticide contains a Group 28 insecticide. Any insect population may contain individuals naturally resistant to Searcher Insecticide and other Group 28 insecticides. The resistant individuals may dominate the insect population if this group of insecticides are used repeatedly in the same fields. Appropriate resistance-management strategies should be followed.

To delay insecticide resistance, take the following steps:

- Rotate the use of Searcher Insecticide or other Group 28 insecticides within a growing season, or among growing seasons, with different groups that control the same pests.
- Use tank mixtures with insecticides from a different group that are equally effective on the target pest when such use is permitted. Do not rely on the same mixture repeatedly for the same pest population. Consider any known cross-resistance issues (for the targeted pests) between the individual components of a mixture. In addition, consider the following recommendations provided by the Insecticide Resistance Action Committee (IRAC):
  - o Individual insecticides selected for use in mixtures should be highly effective and be applied at the rates at which they are individually registered for use against the target species.
  - o Mixtures with components having the same IRAC mode of action classifications are not recommended for insect resistance management.
  - o When using mixtures, consider any known cross-resistance issues between the individual components for the targeted pest(s).
  - o Mixtures become less effective if resistance is already developing to one or both active ingredients, but they may still provide pest management benefits.
  - o The insect resistance management benefits of an insecticide mixture are greatest if the two components have similar periods of residual insecticidal activity. Mixtures of insecticides with unequal periods of residual insecticide activity may offer an insect resistance management benefit only for the period where both insecticides are active.
- Adopt an integrated pest management program for insecticide use that includes scouting, uses historical information related to pesticide use, crop rotation, record keeping, and which considers cultural, biological, and other chemical control practices.
- Monitor after application for unexpected target pest survival. If the level of survival suggests the presence of resistance, consult with your local university specialist or certified pest control advisor.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or IPM recommendations for the specific site and pest problems in your area.
- For further information or to report suspected resistance contact Syngenta at 1-866-SYNGENT(A) (866-796-4368).

Syngenta encourages responsible product stewardship to ensure effective long-term control of the insects on this label.

**4.0 USE RESTRICTIONS**

- **DO NOT** use for commercial grass seed production.
- **DO NOT** formulate this product into other end-use products without written permission from Syngenta Crop Protection, LLC.
- **DO NOT** apply this product through any type of irrigation system.
- **DO NOT** apply this product with aerial application equipment.
- **DO NOT** apply more than 38.3 fluid ounces (equivalent to 0.5 lb of active ingredient) of Searcher Insecticide per acre per year to plants produced or grown outdoors.
- **DO NOT** apply more than 38.3 fluid ounces (equivalent to 0.5 lb of active ingredient) of Searcher Insecticide per acre per crop to plants produced or grown indoors and outdoors in containers.
- **DO NOT** let people and pets enter the treated area until treatment has dried.
- Not for Sale, Sale Into, Distribution and/or Use in Nassau, Suffolk, Kings, Queens Counties of New York State unless permitted under FIFRA Section 24(c) Special Local Need Registration.

The following restrictions are required to permit use of Searcher Insecticide in the State of New York:

- **Golf course greens and tee boxes: DO NOT** apply this product within 25 feet of a water body (lake, pond, river, stream, wetland, or drainage ditch).
- **Golf course fairways: DO NOT** apply this product within 50 feet of a water body (lake, pond, river, stream, wetland, or drainage ditch).
- **Other Use Sites: DO NOT** apply this product within 100 feet of a water body (lake, pond, river, stream, wetland, or drainage ditch).

**5.0 APPLICATION DIRECTIONS**

**5.1 Methods of Application**

Apply Searcher Insecticide to foliage or to the soil by ground equipment only.

Foliar applications offer locally systemic activity against listed insect pests and can be made with ground application equipment: boom sprayers, and hand-wand and hand-gun sprayers.

Soil applications can be made by soil injection, soil and container drenches, and broadcast, banded and directed sprays using boom sprayers, and hand-wand and hand-gun sprayers. Searcher Insecticide is a systemic product that is translocated upward into the plant from root uptake when applied to the soil. To be effective, apply Searcher Insecticide where the root system of the target plant can readily absorb the active ingredient.

**5.2 Application Equipment**

**5.2.1 CLEANING OF APPLICATION EQUIPMENT**

Prior to application, start with clean, well maintained application equipment. Immediately following application, thoroughly clean all application equipment to reduce the risk of forming hardened deposits that can become difficult to remove. Drain application equipment. Thoroughly rinse application equipment and flush hoses, boom and nozzles with clean water. Clean all other associated application equipment. Take all necessary safety precautions when cleaning equipment. **DO NOT** clean equipment near wells, water sources or desirable vegetation. Dispose of waste rinse water in accordance with local regulations.

**5.2.2 CALIBRATION OF APPLICATION EQUIPMENT**

Proper maintenance and calibration of spraying equipment are essential for optimal insect pest control. If you have questions about calibration, contact a State Extension Service specialist, the equipment manufacturer or other experts.

**5.3 Application Volume and Spray Coverage**

Searcher Insecticide must be diluted with water before application. Apply in a volume of water that provides good coverage of the foliage or soil, but does not result in run-off or leaching, as specified in the Directions for Use in **Sections 6.0 and 7.0**.

## 5.4 Mixing Directions

### 5.4.1 SEARCHER INSECTICIDE ALONE

1. Fill sprayer tank 1/4 to 1/2 full of water.
2. Always shake container well before use.
3. Add the required amount of Searcher Insecticide directly to the sprayer tank.
4. Mix thoroughly to fully disperse and continue agitation to keep the insecticide in suspension. Use mechanical or hydraulic agitation. Do not use air agitation.
5. It is recommended that the mixture is not stored in the spray or mix tank overnight.

### 5.4.2 TANK-MIX PRECAUTIONS

Searcher Insecticide may be tank-mixed with other pesticides. 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.

### 5.4.3 TANK-MIX COMPATIBILITY

The physical compatibility of Searcher Insecticide will vary with different sources of pesticide products and local cultural practices. To ensure the physical compatibility of the mixture, prepare a mix on a small scale (such as a pint or quart jar) using the proper proportions of pesticides and water.

### 5.4.4 SEARCHER INSECTICIDE IN TANK MIXTURES

Always shake each product container well before use. Add different formulation types in the sequence indicated below. Allow time for complete mixing and dispersion after the addition of each product.

1. Water-soluble bags
2. Water-dispersible granules
3. Wettable powders
4. Searcher Insecticide and other water-based suspension concentrates
5. Water-soluble concentrates
6. Emulsifiable concentrates
7. Adjuvants, surfactants, oils
8. Soluble fertilizers
9. Drift retardants

### 5.4.5 SPRAY ADDITIVES

When an adjuvant is to be used with this product, the use of an adjuvant that meets the standards of the Council of Producers and Distributors of Agrotechnology (CPDA) adjuvant certification is recommended.

When making foliar applications to hard-to-wet foliage such as holly, pine, or ivy, the addition of a spreader/sticker is recommended.

## 6.0 COMMERCIAL ORNAMENTAL PLANT NURSERIES, GREENHOUSES AND SOD FARMS

Apply Searcher Insecticide to control insect pests on: ornamental plants grown in commercial ornamental nurseries and greenhouses; and on turfgrass produced on sod farms.

Consult your local Syngenta representative, Cooperative Extension Service specialist, or pest control advisor for regionally specific information regarding application timing.

### 6.1 Commercial Nurseries and Greenhouses

- Apply Searcher Insecticide as a foliar, bark or soil treatment. See **Section 5** for methods of application and **Tables 6.1.1 to 6.1.5** for specific Directions for Use.
- For maximum residual control, apply at highest listed application rate.
- Apply in a volume of water sufficient to uniformly cover the area being treated (a minimum of 1 gallon per 1,000 square feet).
- For soil applications, apply in a volume of water sufficient to reach the root zone where soil pests are feeding and for systemic uptake (apply Searcher Insecticide to moist soil to achieve even distribution throughout the soil profile).
- Use properly calibrated application equipment that will produce a uniform, coarse droplet spray, using a low pressure setting to eliminate off-target drift.
- Refer to the **AGRICULTURAL USE REQUIREMENTS** box for compliance with the Worker Protection Standard.

### 6.1.1 FOLIAR APPLICATIONS

Ornamentals commercially produced in indoor nurseries, outdoor nurseries (both field-grown and containerized plants), greenhouses, shade houses, lath houses, and hoop houses.			
Breeding crops Bulb, corm and tuber crops (such as tulips, calla lilies) Evergreens, including conifers Flowering plants Flowers grown for seed production	Foliage plants Ground covers Non-bearing fruit and nut trees <sup>1</sup> Ornamental grasses Ornamental trees Palms	Perennial plants Pot and bedding plants Shrubs Succulents Vines (non-bearing) <sup>1</sup>	
Target Pests	Product Dilution	Application Timing	Use Directions
Leaf-feeding caterpillars, such as bagworms and tussock moth caterpillars, including whitemarked tussock moth	2 - 16 fl oz per 100 gallons (0.026 - 0.208 lb ai per 100 gallons)	Apply preventatively or after caterpillars have been observed.  Repeat treatment to maintain control using the higher listed application rates as pest pressure and foliage area increases.	Mix Searcher Insecticide with the required amount of water and apply as a full-coverage foliar spray.  When applying to hard-to-wet foliage, such as holly, pine, or ivy, the addition of a spreader/sticker is recommended.  If concentrate or mist-type spray equipment is used, apply an equivalent amount of product as would be used in a dilute application.
USE RESTRICTIONS			
1) <b>Maximum Single Application Rate:</b> <ul style="list-style-type: none"><li>• <b>Do not</b> apply more than 16 fl oz of Searcher Insecticide per acre (0.37 fl oz of Searcher Insecticide per 1000 sq ft).</li></ul> 2) <b>Maximum Annual Application Rate:</b> <ul style="list-style-type: none"><li>• For indoor ornamental production and outdoor containerized production, <b>do not</b> apply more than 38.3 fl oz of Searcher Insecticide per acre (0.88 fl oz of Searcher Insecticide per 1000 sq ft) per crop or 0.5 lb ai per acre per crop from any chlorantraniliprole-containing products. <b>Do not</b> apply to more than 6 crops per year.</li><li>• For outdoor, field-grown production, <b>do not</b> apply more than 38.3 fl oz of Searcher Insecticide per acre (or 0.5 lb ai per acre from any chlorantraniliprole-containing products) per calendar year.</li></ul> 3) <b>Do not</b> apply more than once every 7 days. 4) <b>Do not</b> apply aerially. 5) <b>Do not</b> enter or allow worker entry into treated areas during the restricted entry interval of 4 hr.			

<sup>1</sup>Non-bearing fruit and nut trees and vines are those trees and vines that will not bear edible fruit or nuts for one year after application.

### 6.1.2 SOIL APPLICATIONS FOR WHITE GRUBS

Ornamentals commercially produced in indoor nurseries, outdoor nurseries (both field-grown and containerized plants), greenhouses, shade houses, lath houses, and hoop houses.			
Breeding crops Bulb, corm and tuber crops (such as tulips, calla lilies) Evergreens, including conifers Flowering plants Flowers grown for seed production	Foliage plants Ground covers Non-bearing fruit and nut trees <sup>1</sup> Ornamental grasses Ornamental trees Palms	Perennial plants Pot and bedding plants Shrubs Succulents Vines (non-bearing) <sup>1</sup>	
Target Pests	Product Use Rate	Application Timing	Use Directions
White grubs, including Asiatic garden beetle, European chafer, green June beetle, Japanese beetle, May/June beetles ( <i>Phyllophaga</i> spp.), northern masked chafer, oriental beetle and southern masked chafer	0.18 - 0.37 fl oz per 1000 sq ft  8 - 16 fl oz per acre (0.104 - 0.208 lb ai per acre)	Apply immediately prior to egg hatch.  The need for an application may be based on historical monitoring of the site, previous records or experiences, current season adult trapping, or other methods.	Apply using 1-2 pts water or greater per sq ft of soil surface.  Irrigate immediately after application or allow rainfall to move the product into the soil.
USE RESTRICTIONS			
1) <b>Maximum Single Application Rate:</b> <ul style="list-style-type: none"><li>• <b>Do not</b> apply more than 16 fl oz of Searcher Insecticide per acre (0.37 fl oz of Searcher Insecticide per 1000 sq ft).</li></ul> 2) <b>Maximum Annual Application Rate:</b> <ul style="list-style-type: none"><li>• <b>Do not</b> apply more than 38.3 fl oz of Searcher Insecticide per acre (0.5 lb ai per acre from any chlorantraniliprole-containing products) per calendar year.</li></ul> 3) <b>Do not</b> apply more than once every 7 days. 4) <b>Do not</b> apply aerially. 5) <b>Do not</b> enter or allow worker entry into treated areas during the restricted entry interval of 4 hr.			

<sup>1</sup>Non-bearing fruit and nut trees and vines are those trees and vines that will not bear edible fruit or nuts for one year after application.

### 6.1.3 SYSTEMIC SOIL TREATMENTS

Ornamentals commercially produced in indoor nurseries, outdoor nurseries (both field-grown and containerized plants), greenhouses, shade houses, lath houses, and hoop houses.			
Evergreens, including conifers Foliage plants		Non-bearing fruit and nut trees <sup>1</sup> Ornamental trees	Palms Shrubs
Target Pests	Product Use Rate <sup>2</sup>	Application Timing	Use Directions
Lace bugs Aphids, including apple aphid	0.0625 - 0.25 fl oz (0.00082 to 0.0033 lb ai)  per inch DBH of tree or per foot of height of shrub	When making soil applications to plants with woody stems, systemic activity will be delayed until the active ingredient is translocated throughout the plant. This delay could be 60 days or longer. Applications should be made prior to pest infestation to achieve best control.	Application can be made by soil injection, soil drenches, and broadcast sprays.  Apply Searcher Insecticide within 1-3 feet of the root flare of trees and shrubs. Apply product in sufficient water volume to reach the root zone for optimal systemic uptake.
Birch leafminer	0.25 fl oz (0.0033 lb ai)  per inch DBH of tree or per foot of height of shrub		Refer to <b>Section 8.2</b> for additional information on soil injection and soil drench applications.
USE RESTRICTIONS			
<b>1) Maximum Single Application Rate:</b> <ul style="list-style-type: none"><li>Do not apply more than 16 fl oz of Searcher Insecticide per acre (0.37 fl oz of Searcher Insecticide per 1000 sq ft).</li></ul> <b>2) Maximum Annual Application Rate:</b> <ul style="list-style-type: none"><li>For indoor production and outdoor containerized production, <b>do not</b> apply more than 38.3 fl oz of Searcher Insecticide per acre (0.88 fl oz per 1000 sq ft) per crop or 0.5 lb ai per acre per crop from any chlorantraniliprole-containing products. <b>Do not</b> apply to more than 6 crops per year.</li><li>For outdoor, field-grown production, <b>do not</b> apply more than 38.3 fl oz of Searcher Insecticide per acre (or 0.5 lb ai per acre from any chlorantraniliprole-containing products) per calendar year.</li></ul> <b>3) Do not</b> apply more than once every 7 days. <b>4) Do not</b> apply aerially. <b>5) Do not</b> enter or allow worker entry into treated areas during the restricted entry interval of 4 hr.			

<sup>1</sup>Non-bearing fruit and nut trees and vines are those trees and vines that will not bear edible fruit or nuts for one year after application.

<sup>2</sup>Amount of Searcher Insecticide per inch of diameter at breast height (DBH) for trees or per foot of height for shrubs. See restrictions regarding the number of trees or shrubs that can be treated per acre in the following tables.

Maximum number of trees that can be treated per acre at the listed rates.						
Amount of Searcher Insecticide to be applied per inch DBH <sup>1</sup>	Diameter at breast height (DBH) of tree <sup>1</sup>					
	1 inch	2 inches	3 inches	4 inches	5 inches	6 inches
0.0625 fl oz	256	128	85	64	51	42
0.25 fl oz	64	32	21	16	12	10

<sup>1</sup>For trees with a DBH greater than 6 inches, **do not** apply more than 1.5 fl oz per plant. Dilute the required amount of Searcher Insecticide in a volume of water that ensures coverage (see **Section 5.0** for additional application instructions).

Maximum number of shrubs that can be treated per acre at the listed rates.						
Amount of Searcher Insecticide to be applied per foot height of shrub <sup>1</sup>	Height of shrub <sup>1</sup>					
	1 foot	2 feet	3 feet	4 feet	5 feet	6 feet
0.0625 fl oz	256	128	85	64	51	42
0.25 fl oz	64	32	21	16	12	10

<sup>1</sup>For shrubs with a height greater than 6 feet, **do not** apply more than 1.5 fl oz per plant. Dilute the required amount of Searcher Insecticide in a volume of water that ensures coverage (see **Section 5.0** for additional application instructions).

### 6.1.4 BARK APPLICATIONS

Ornamentals commercially produced in indoor nurseries, outdoor nurseries (both field-grown and containerized plants), greenhouses, shade houses, lath houses, and hoop houses.			
Evergreens, including conifers Foliage plants	Non-bearing fruit and nut trees <sup>1</sup> Ornamental trees	Palms Shrubs	
Target Pests	Product Dilution	Application Timing	Application Information
Clearwing moth borer larvae, including peachtree borer	4 fl oz - 32 fl oz per 100 gallons  (0.052 - 0.416 lb ai per 100 gallons)	Make applications after the emergence of adult moths and before their eggs hatch.  Adult emergence varies according to pest species, host tree, environmental conditions and geographic location.  Consult local Cooperative Extension Service specialist or pest control advisor for regionally specific information regarding application timing.	Apply Searcher Insecticide to the trunks and lower branches of trees and shrubs to control clearwing moth borer larvae.  Thorough surface spray coverage of the bark is required for control.  Apply until bark is soaked thoroughly, but not to the point of runoff.
USE RESTRICTIONS			
1) <b>Maximum Single Application Rate:</b> <ul style="list-style-type: none"> <li><b>Do not</b> apply more than 16 fl oz of Searcher Insecticide per acre (0.37 fl oz of Searcher Insecticide per 1000 sq ft).</li> </ul> 2) <b>Maximum Annual Application Rate:</b> <ul style="list-style-type: none"> <li><b>Do not</b> apply more than 38.3 fl oz of Searcher Insecticide per acre (or 0.5 lb ai per acre from any chlorantraniliprole-containing products) per calendar year.</li> </ul> 3) <b>Do not</b> apply more than once every 7 days. 4) <b>Do not</b> apply aerially. 5) <b>Do not</b> enter or allow worker entry into treated areas during the restricted entry interval of 4 hr.			

<sup>1</sup>Non-bearing fruit and nut trees and vines are those trees and vines that will not bear edible fruit or nuts for one year after application.

### 6.1.5 CONTAINER DRENCH APPLICATIONS

Ornamentals commercially produced in indoor nurseries, outdoor nurseries (both field-grown and containerized plants), greenhouses, shade houses, lath houses, and hoop houses.			
Evergreens, including conifers Foliage plants	Non-bearing fruit and nut trees <sup>1</sup> Ornamental trees	Palms Shrubs	
Target Pests	Product Dilution	Application Timing	Application Information
White grubs, including Asiatic garden beetle European chafer Green June beetle Japanese beetle May/June beetles ( <i>Phyllophaga</i> spp.) Northern masked chafer Oriental beetle Southern masked chafer	8 - 16 fl oz per 100 gallons  (0.104 - 0.208 lb ai per 100 gallons)	For best control, apply immediately prior to egg hatch.  The need for an application may be based on historical monitoring of the site, previous records or experiences, current season adult trapping, or other methods.	Mix required dose in water and uniformly apply the drench solution to the container surface. Apply the solution to wet the entire container without leaching.
Lace bugs Aphids, including apple aphid	8 - 32 fl oz per 100 gallons  (0.104 - 0.416 lb ai per 100 gallons)	To control above-ground pests, especially those with woody stems, systemic activity will be delayed until the active ingredient is translocated throughout the plant. This delay could be 60 days or longer. Applications should be made prior to anticipated pest infestation to achieve best control.	Apply the drench solution uniformly to the soil to wet the entire container without leaching.
USE RESTRICTIONS			
1) <b>Maximum Single Application Rate:</b> <ul style="list-style-type: none"> <li><b>Do not</b> apply more than 16 fl oz of Searcher Insecticide per acre (0.37 fl oz of Searcher Insecticide per 1000 sq ft).</li> </ul> 2) <b>Maximum Annual Application Rate:</b> <ul style="list-style-type: none"> <li>For indoor production, <b>do not</b> apply more than 38.3 fl oz of Searcher Insecticide per acre (0.88 fl oz of Searcher Insecticide per 1000 sq ft) per crop or 0.5 lb ai per acre per crop from any chlorantraniliprole-containing products. <b>Do not</b> apply to more than 6 crops per year.</li> <li>For outdoor production, <b>do not</b> apply more than 38.3 fl oz of Searcher Insecticide per acre (or 0.5 lb ai per acre from any chlorantraniliprole-containing products) per calendar year.</li> </ul> 3) <b>Do not</b> apply more than once every 7 days. 4) <b>Do not</b> apply aerially. 5) <b>Do not</b> enter or allow worker entry into treated areas during the restricted entry interval of 4 hr.			

<sup>1</sup>Non-bearing fruit and nut trees and vines are those trees and vines that will not bear edible fruit or nuts for one year after application.



## 6.2 Production of Turfgrass Sod on Commercial Sod Farms

- For maximum residual control or heavy pest pressure, apply up to 20 fl oz per acre to control any of the pests listed in **Table 6.2.1**.
- Apply in a volume of water sufficient to uniformly cover the area being treated (a minimum of 1 gallon per 1,000 square feet).
- Use properly calibrated application equipment that will produce a uniform, coarse droplet spray, using a low pressure setting to eliminate off-target drift.
- Refer to **Section 8.1** for the **Broadcast Application Dilution Chart**.
- Refer to the **AGRICULTURAL USE REQUIREMENTS** box for compliance with the Worker Protection standard.

### 6.2.1 BROADCAST APPLICATIONS

Turfgrass sod produced on commercial sod farms		
Target Pests	Product Use Rate	Application Information
Annual bluegrass weevil	12 – 20 fl oz per acre (0.157 – 0.26 lb ai per acre)	Apply when overwintered adult annual bluegrass weevils are observed in late April or early May to prevent damage from first-generation larvae in late May and June. The higher rates listed may be required for applications made after mid-May. An application at this time will also provide white grub control.
Billbugs	8 – 20 fl oz per acre (0.104 – 0.26 lb ai per acre)	Apply when overwintered adult billbugs are first observed. This will usually occur in late April or early May in regions with cool-season turfgrass. The higher rates listed may be required for applications made after early May or when billbug species other than bluegrass billbug are present. An application at this time will also provide white grub control.
European crane fly (larvae)	8 – 16 fl oz per acre (0.104 – 0.208 lb ai per acre)	Apply between September and November. The higher rate listed may be required to achieve control when applications are made in November.
Spittlebugs (two-lined)	12 – 20 fl oz per acre (0.157 – 0.26 lb ai per acre)	Apply in spring or summer.
Turf caterpillars, including armyworms, cutworms, and sod webworms	2 – 4 fl oz per acre (0.026 – 0.052 lb ai per acre)	Apply preventatively or after caterpillars have been observed. To ensure best control, delay water (irrigation) or mowing for 24 hours after application. If the area being treated is maintained at a mowing height greater than one inch, the higher rate listed may be required during periods of high pest pressure.
White Grubs, including <i>Aphodius</i> spp., Asiatic garden beetle, black turfgrass ateniinus, European chafer, green June beetle, Japanese beetle, May/June beetles ( <i>Phyllophaga</i> spp.), northern masked chafer, oriental beetle and southern masked chafer	8 – 16 fl oz per acre (0.104 – 0.208 lb ai per acre)	Apply from early April to early September for preventative control. The higher rate listed may be required for early-season (April and May) applications where a long residual is required or in late August or early September when less-sensitive mid-instar grubs are present at the time of application. Irrigate turf immediately after application or allow rainfall to move the product into the soil. The need for an application may be based on historical monitoring of the site, previous records or experiences, current season adult trapping, or other methods.
<b>Suppression:</b> Chinch bugs	8 – 20 fl oz per acre (0.104 – 0.26 lb ai per acre)	Apply before eggs hatch.
USE RESTRICTIONS		
1) <b>Maximum Single Application Rate:</b> <ul style="list-style-type: none"><li><b>Do not</b> apply more than 20 fl oz of Searcher Insecticide per acre (0.46 fl oz of Searcher Insecticide per 1000 sq ft).</li></ul> 2) <b>Maximum Annual Application Rate:</b> <ul style="list-style-type: none"><li><b>Do not</b> apply more than 38.3 fl oz of Searcher Insecticide per acre per calendar year (0.5 lb ai per acre per calendar year of chlorantraniliprole-containing products).</li></ul> 3) <b>Do not</b> apply more than once every 7 days. 4) <b>Do not</b> apply aerially. 5) <b>Do not</b> enter or allow worker entry into treated areas during the restricted entry interval of 4 hr.		

## 7.0 GOLF COURSES, LAWNS AND LANDSCAPES, AND INTERIOR PLANTSCAPES

Apply Searcher Insecticide to control listed insect pests of turf and ornamental plants grown in, on or around golf courses, lawns and landscaped areas around residential, institutional, public, commercial and industrial buildings, parks, recreational areas, athletic fields and interior plantscapes.

## 7.1 Golf Course, Lawn, and Recreational Area Turf

Apply Searcher Insecticide to control listed insect pests of turf and ornamental plants grown in, on or around golf courses, lawns and landscaped areas around residential, institutional, public, commercial and industrial buildings, parks, recreational areas, athletic fields and interior plantscapes.

- For maximum residual control or heavy pest pressure, apply at rates up to 20 fl oz per acre to control any of the pests listed in **Table 7.1.1**.
- Apply as a broadcast spray using a boom sprayer, hand-gun sprayer or similar ground equipment.
- Apply in a volume of water sufficient to uniformly cover the area being treated (a minimum of 2 gallons per 1,000 square feet).
- Use properly calibrated application equipment that will produce a uniform, coarse droplet spray, using a low pressure setting to eliminate off-target drift.
- Refer to **Section 8.1** for the **Broadcast Application Dilution Chart** and **Section 8.2** for soil application directions.

### 7.1.1 BROADCAST APPLICATIONS

Turfgrass in golf courses, lawns on residential or commercial properties, and other recreational areas		
Target Pests	Product Use Rate	Application Information
Annual bluegrass weevil	0.28 – 0.46 fl oz per 1000 sq ft 12 – 20 fl oz per acre (0.157 – 0.26 lb ai per acre)	Apply when overwintered adult annual bluegrass weevils are observed in late April or early May to prevent damage from first-generation larvae in late May and June. The higher rates listed may be required for applications made after mid-May. An application at this time will also provide white grub control.
Billbugs	0.18 – 0.46 fl oz per 1000 sq ft 8 – 20 fl oz per acre (0.104 – 0.26 lb ai per acre)	Apply when overwintered adult billbugs are observed in late April or early May in regions with cool-season turfgrass. The higher rates listed may be required for applications made after early May or when billbug species other than bluegrass billbug are present. An application at this time will also provide white grub control.
European crane fly (larvae)	0.18 – 0.37 fl oz per 1000 sq ft 8 – 16 fl oz per acre (0.104 – 0.208 lb ai per acre)	Apply between September and November. The higher rate listed may be required to achieve control when applications are made in November.
Spittlebugs (two-lined)	0.28 – 0.46 fl oz per 1000 sq ft 12 – 20 fl oz per acre (0.157 – 0.26 lb ai per acre)	Apply in spring or summer.
Turf caterpillars, including armyworms, cutworms, and sod webworms	0.05 – 0.09 fl oz per 1000 sq ft 2 – 4 fl oz per acre (0.026 – 0.052 lb ai per acre)	Apply preventatively or after caterpillars have been observed. To ensure best control, delay water (irrigation) or mowing for 24 hours after application. If the area being treated is maintained at a mowing height greater than one inch, the higher rate listed may be required during periods of high pest pressure.
White Grubs, including <i>Aphodius</i> spp., Asiatic garden beetle, black turfgrass ateniinus, European chafer, green June beetle, Japanese beetle, May/June beetles ( <i>Phyllophaga</i> spp.), northern masked chafer, oriental beetle and southern masked chafer	0.18 – 0.37 fl oz per 1000 sq ft 8 – 16 fl oz per acre (0.104 – 0.208 lb ai per acre)	Apply from early April to early September for preventative control. The higher rate listed may be required for early-season (April and May) applications where a long residual is required or in late August or early September when less-sensitive mid-instar grubs are present at the time of application. The need for an application may be based on historical monitoring of the site, previous records or experiences, current season adult trapping, or other methods. Irrigate turf immediately after application or allow rainfall to move the product into the soil.
<b>Suppression:</b> Chinch bugs	0.18 – 0.46 fl oz per 1000 sq ft 8 – 20 fl oz per acre (0.104 – 0.26 lb ai per acre)	Apply before eggs hatch.
USE RESTRICTIONS		
1) <b>Maximum Single Application Rate:</b> <ul style="list-style-type: none"><li><b>Do not</b> apply more than 20 fl oz of Searcher Insecticide per acre (0.46 fl oz of Searcher Insecticide per 1000 sq ft).</li></ul> 2) <b>Maximum Annual Application Rate:</b> <ul style="list-style-type: none"><li><b>Do not</b> apply more than 38.3 fl oz of Searcher Insecticide per acre per calendar year (0.5 lb ai per acre per calendar year of chlorantraniliprole-containing products).</li></ul> 3) <b>Do not</b> apply more than once every 7 days. 4) <b>Do not</b> enter or allow others to enter treated areas until sprays have dried.		

## 7.2 Ornamentals in Outdoor Landscapes and Interior Plantscapes

- Apply Searcher Insecticide as a foliar, bark or soil treatment to control listed insect pests. See **Table 7.2.1 to 7.2.5** for specific Directions for Use.
- For maximum residual control, apply at highest listed rate.
- Apply in a volume of water sufficient to cover the area being treated (a minimum of 1 gallon per 1,000 square feet).
- Use properly calibrated application equipment that will produce a uniform, coarse droplet spray, using a low pressure setting to eliminate off-target drift.

### 7.2.1 FOLIAR APPLICATIONS

Ornamentals in outdoor landscapes and interior plantscapes			
Bulb, corm and tuber crops (such as tulips, calla lilies)	Foliage plants Ground covers Non-bearing fruit and nut trees <sup>1</sup> Ornamental grasses Ornamental trees	Palms Perennial plants Shrubs Succulents Vines (non-bearing) <sup>1</sup>	
Evergreens, including conifers			
Flowering plants			
Target Pests	Product Dilution	Application Timing	Application Information
Leaf-feeding caterpillars, such as bagworms and tussock moth caterpillars, including whitemarked tussock moth	2 - 16 fl oz per 100 gallons (0.026 - 0.208 lb ai per 100 gallons)	Apply preventatively or after caterpillars have been observed.  Repeat treatment to maintain control using the higher listed application rates as pest pressure and foliage area increases.	Apply in a minimum spray volume of 1 gallon 1000 sq ft as a full coverage foliar spray to control the target pests. If concentrate or mist-type spray equipment is used, apply an equivalent amount of product on the treated area as would be used in a dilute application.  For hard-to-wet foliage such as holly, pine, or ivy, the addition of a spreader/sticker is recommended.
USE RESTRICTIONS			
<b>1) Maximum Single Application Rate:</b> <ul style="list-style-type: none"> <li>• <b>Do not</b> apply more than 16 fl oz of Searcher Insecticide per acre (0.37 fl oz of Searcher Insecticide per 1000 sq ft).</li> </ul> <b>2) Maximum Annual Application Rate:</b> <ul style="list-style-type: none"> <li>• <b>Do not</b> apply more than 38.3 fl oz of Searcher Insecticide per acre per calendar year (0.5 lb ai per acre per calendar year of chlorantraniliprole-containing products).</li> </ul> <b>3) Do not</b> apply more than once every 7 days. <b>4) Do not</b> enter or allow others to enter the treated area until sprays have dried.			

<sup>1</sup>Non-bearing fruit and nut trees and vines are those trees and vines that will not bear edible fruit or nuts for one year after application.

### 7.2.2 SOIL APPLICATIONS FOR WHITE GRUBS

Ornamentals in outdoor landscapes and interior plantscapes			
Bulb, corm and tuber crops (such as tulips, calla lilies)	Ground covers Non-bearing fruit and nut trees <sup>1</sup> Ornamental grasses Ornamental trees	Perennial plants Shrubs Succulents Vines (non-bearing) <sup>1</sup>	
Evergreens, including conifers	Palms		
Flowering plants			
Foliage plants			
Target Pests	Product Use Rate	Application Timing	Application Information
White grubs, including Asiatic garden beetle, European chafer, green June beetle, Japanese beetle, May/June beetles ( <i>Phyllophaga</i> spp.), northern masked chafer, oriental beetle and southern masked chafer	0.18 – 0.37 fl oz per 1000 sq ft 8 – 16 fl oz per acre (0.104 – 0.208 lb ai per acre)	For best control, apply immediately prior to egg hatch.  The need for an application may be based on historical monitoring of the site, previous records or experiences, current season adult trapping, or other methods.	Apply in sufficient water to uniformly cover the area being treated as a broadcast or banded treatment (a minimum of 2 gal per 1,000 sq ft).  Irrigate immediately after application or allow rainfall to move the product into the soil.
USE RESTRICTIONS			
<b>1) Maximum Single Application Rate:</b> <ul style="list-style-type: none"> <li>• <b>Do not</b> apply more than 16 fl oz of Searcher Insecticide per acre (0.37 fl oz of Searcher Insecticide per 1000 sq ft).</li> </ul> <b>2) Maximum Annual Application Rate:</b> <ul style="list-style-type: none"> <li>• <b>Do not</b> apply more than 38.3 fl oz of Searcher Insecticide per acre per calendar year (0.5 lb ai per acre per calendar year of chlorantraniliprole-containing products).</li> </ul> <b>3) Do not</b> apply more than once every 7 days. <b>4) Do not</b> enter or allow others to enter the treated area until sprays have dried.			

<sup>1</sup>Non-bearing fruit and nut trees and vines are those trees and vines that will not bear edible fruit or nuts for one year after application.

## 7.2.3 SYSTEMIC SOIL TREATMENTS

Ornamentals in outdoor landscapes and interior plantscapes			
Evergreens, including conifers	Non-bearing fruit and nut trees <sup>1</sup> Ornamental trees	Palms Shrubs	
Target Pests	Product Use Rate <sup>2</sup>	Application Timing	Use Directions
Lace bugs Aphids, including apple aphid	0.0625 - 0.25 fl oz (0.00082 to 0.0033 lb ai) per DBH of tree or foot of height of shrub	When making soil applications to plants with woody stems, systemic activity will be delayed until the active ingredient is translocated throughout the plant. This delay could be 60 days or longer. Make applications prior to pest infestation to achieve best control.	Application can be made by soil injection, soil drenches, and broadcast sprays.  To be effective, Searcher Insecticide must be placed within 1-3 feet of the root flare of trees and shrubs with sufficient solution volume to reach the root zone for optimal systemic uptake.
Birch leafminer	0.25 fl oz (0.0033 lb ai) per DBH of tree or foot of height of shrub		
USE RESTRICTIONS			
<b>1) Maximum Single Application Rate:</b> <ul style="list-style-type: none"> <li>• <b>Do not</b> apply more than 16 fl oz of Searcher Insecticide per acre (0.37 fl oz of Searcher Insecticide per 1000 sq ft).</li> </ul> <b>2) Maximum Annual Application Rate:</b> <ul style="list-style-type: none"> <li>• <b>Do not</b> apply more than 38.3 fl oz of Searcher Insecticide per acre per calendar year (0.5 lb ai per acre per calendar year of chlorantraniliprole-containing products).</li> </ul> <b>3) Do not</b> apply more than once every 7 days. <b>4) Do not</b> enter or allow others to enter the treated area until sprays have dried.			

<sup>1</sup>Non-bearing fruit and nut trees and vines are those trees and vines that will not bear edible fruit or nuts for one year after application.

<sup>2</sup>Amount of Searcher Insecticide per inch of diameter at breast height (DBH) for trees or per foot of height for shrubs

Maximum number of trees that can be treated per acre at the listed rates.						
Amount of Searcher Insecticide to be applied per inch DBH <sup>1</sup>	Diameter at breast height (DBH) of tree <sup>1</sup>					
	1 inch	2 inches	3 inches	4 inches	5 inches	6 inches
0.0625 fl oz	256	128	85	64	51	42
0.25 fl oz	64	32	21	16	12	10

<sup>1</sup>For trees with a DBH greater than 6 inches, **do not** apply more than 1.5 fl oz of Searcher Insecticide per plant. Dilute the required amount of Searcher Insecticide in a volume of water that ensures adequate coverage (see **Section 5.0** for additional application instructions).

Maximum number of shrubs that can be treated per acre at the listed rates.						
Amount of Searcher Insecticide to be applied per foot height of shrub <sup>1</sup>	Height of shrub <sup>1</sup>					
	1 foot	2 feet	3 feet	4 feet	5 feet	6 feet
0.0625 fl oz	256	128	85	64	51	42
0.25 fl oz	64	32	21	16	12	10

<sup>1</sup>For shrubs with a height greater than 6 feet, **do not** apply more than 1.5 fl oz of Searcher Insecticide per plant. Dilute the required amount of Searcher Insecticide in a volume of water that ensures coverage (see **Section 5.0** for additional application instructions).

### 7.2.4 BARK APPLICATIONS

Ornamentals in outdoor landscapes and interior plantscapes			
Evergreens, including conifers	Non-bearing fruit and nut trees <sup>1</sup> Ornamental trees	Palms Shrubs	
Target Pests	Product Dilution	Application Timing	Application Information
Clearwing moth borer larvae, including peachtree borer	4 fl oz - 32 fl oz per 100 gallons (0.052 - 0.416 lb ai per 100 gallons)	Make applications after the emergence of adult moths and before their eggs hatch.  Consult local Cooperative Extension Service specialist or pest control advisor for information regarding application timing in your area.	Apply Searcher Insecticide to the trunks and lower branches of trees and shrubs to control clearwing moth borer larvae.  Thorough surface spray coverage of the bark is required for control. Apply until bark is soaked thoroughly, but not to the point of runoff.
USE RESTRICTIONS			
<b>1) Maximum Single Application Rate:</b> <ul style="list-style-type: none"> <li>• <b>Do not</b> apply more than 16 fl oz of Searcher Insecticide per acre (0.37 fl oz of Searcher Insecticide per 1000 sq ft).</li> </ul> <b>2) Maximum Annual Application Rate:</b> <ul style="list-style-type: none"> <li>• <b>Do not</b> apply more than 38.3 fl oz of Searcher Insecticide per acre per calendar year (0.5 lb ai per acre per calendar year of chlorantraniliprole-containing products).</li> </ul> <b>3) Do not</b> apply more than once every 7 days. <b>4) Do not</b> enter or allow others to enter the treated area until sprays have dried.			

<sup>1</sup>Non-bearing fruit and nut trees and vines are those trees and vines that will not bear edible fruit or nuts for one year after application.

7.2.5 CONTAINER DRENCH APPLICATIONS

Ornamentals in outdoor landscapes and interior plantscapes			
Evergreens, including conifers Foliage plants	Non-bearing fruit and nut trees <sup>1</sup> Ornamental trees	Palms Shrubs	
Target Pests	Product Dilution	Application Timing	Application Information
White grubs, including Asiatic garden beetle, European chafer, Green June beetle, Japanese beetle, May/June beetles ( <i>Phyllophaga</i> spp.), Northern masked chafer, Oriental beetle Southern masked chafer	8 – 16 fl oz per 100 gallons (0.104 - 0.208 lb ai per 100 gallons)	For optimal control, apply immediately prior to egg hatch.  The need for an application may be based on historical monitoring of the site, previous records or experiences, current season adult trapping, or other methods.	Mix required dose in water and uniformly apply the drench solution to the soil surface.  Apply a sufficient quantity of solution to drench the entire root zone.
Lace bugs Aphids, including apple aphid	8 – 32 fl oz per 100 gallons (0.104 - 0.416 lb ai per 100 gallons)	When making drench applications to plants, especially those with woody stems, systemic activity will be delayed until the active ingredient is translocated throughout the plant. This delay could be 60 days or longer. Make applications prior to pest infestation to achieve best control.	Mix required dose in water and uniformly apply the drench solution to the soil surface.  Apply a sufficient quantity of solution to drench the entire root zone.
USE RESTRICTIONS			
1) <b>Maximum Single Application Rate:</b> <ul style="list-style-type: none"><li>Do not apply more than 16 fl oz of Searcher Insecticide per acre (0.37 fl oz of Searcher Insecticide per 1000 sq ft).</li></ul>			
2) <b>Maximum Annual Application Rate:</b> <ul style="list-style-type: none"><li>Do not apply more than 38.3 fl oz of Searcher Insecticide per acre per calendar year (0.5 lb ai per acre per calendar year of chlorantraniliprole-containing products).</li></ul>			
3) <b>Do not</b> apply more than once every 7 days.			
4) <b>Do not</b> enter or allow others to enter the treated area until sprays have dried.			

<sup>1</sup>Non-bearing fruit and nut trees and vines are those trees and vines that will not bear edible fruit or nuts for one year after application.

8.0 ADDITIONAL RATE TABLES

8.1 Broadcast Application Dilution Chart

This table provides mixing instructions to produce 1, 5, 10, and 100 gallons of finished (diluted Searcher Insecticide) spray solution on both a per acre and per 1000 sq ft basis. For example, if you want to apply Searcher Insecticide at the 4 fl oz per acre rate in a spray volume of 1 gallon of finished spray per 1000 sq ft, add 0.92 fl oz of Searcher Insecticide to 10 gallons of water and mix thoroughly according to the mixing directions in **Section 5.4** (10 gallons of finished spray will cover 10,000 sq ft).

Note: 1 gallon per 1000 sq ft = 44 gallons per acre.

Application Spray Volume (gallons per 1,000 sq ft)	Product Application Rates			Fluid ounces of Searcher Insecticide diluted to these volumes of finished spray			
	fl oz Searcher Insecticide per acre	fl oz Searcher Insecticide per 1,000 sq ft	lb ai per acre	1 gallon	5 gallons	10 gallons	100 gallons
1	1	0.02	0.013	0.02	0.12	0.23	2.3
	2	0.05	0.026	0.05	0.23	0.46	4.6
	4	0.09	0.052	0.09	0.46	0.92	9.2
	8	0.18	0.104	0.18	0.92	1.84	18.4
	16	0.37	0.208	0.37	1.84	3.67	36.7
	20	0.46	0.260	0.46	2.30	4.60	46.0
2	1	0.02	0.013	0.01	0.06	0.12	1.15
	2	0.05	0.026	0.02	0.12	0.23	2.30
	4	0.09	0.052	0.05	0.23	0.46	4.60
	8	0.18	0.104	0.09	0.46	0.92	9.20
	16	0.37	0.208	0.18	0.92	1.84	18.4
3	20	0.46	0.260	0.23	1.15	2.30	23.0
	1	0.02	0.013	0.01	0.04	0.08	0.77
	2	0.05	0.026	0.02	0.08	0.15	1.50
	4	0.09	0.052	0.03	0.15	0.30	3.00
	8	0.18	0.104	0.06	0.31	0.60	6.00
4	16	0.37	0.208	0.12	0.62	1.23	12.3
	20	0.46	0.260	0.15	0.77	1.53	15.3
	1	0.02	0.013	0.006	0.03	0.06	0.58
	2	0.05	0.026	0.01	0.06	0.12	1.15
	4	0.09	0.052	0.02	0.12	0.23	2.30
5	8	0.18	0.104	0.05	0.23	0.46	4.60
	16	0.37	0.208	0.09	0.46	0.92	9.20
	20	0.46	0.260	0.12	0.58	1.15	11.5

Application Spray Volume (gallons per 1,000 sq ft)	Product Application Rates			Fluid ounces of Searcher Insecticide diluted to these volumes of finished spray			
	fl oz Searcher Insecticide per acre	fl oz Searcher Insecticide per 1,000 sq ft	lb ai per acre	1 gallon	5 gallons	10 gallons	100 gallons
5	1	0.02	0.013	0.005	0.02	0.05	0.46
	2	0.05	0.026	0.009	0.05	0.09	0.92
	4	0.09	0.052	0.018	0.09	0.18	1.84
	8	0.18	0.104	0.037	0.18	0.37	3.70
	16	0.37	0.208	0.074	0.37	0.74	7.40
	20	0.46	0.260	0.092	0.46	0.92	9.20
10	1	0.02	0.013	0.002	0.01	0.02	0.23
	2	0.05	0.026	0.005	0.02	0.05	0.46
	4	0.09	0.052	0.009	0.05	0.09	0.92
	8	0.18	0.104	0.018	0.09	0.18	1.84
	16	0.37	0.208	0.037	0.18	0.37	3.67
	20	0.46	0.260	0.046	0.23	0.46	4.60

- To convert from fluid ounces to milliliters, multiply by 29.57.
- 1 fluid ounce = 29.57 ml = 2 tablespoons = 6 teaspoons
- Do not use household utensils to measure Searcher Insecticide.

8.2 Soil Application Methods (Injection/Drench)

The calculations for soil injection/drench applications of Searcher Insecticide to trees and shrubs involve the following steps:

- Step 1:** Calibrate the application equipment to determine the specified flow rate in gallons per minute.
- Step 2:** Select an injection/drench volume per inch of tree diameter at breast height (DBH) or foot of shrub height.
- Step 3:** Refer to **Table 8.2.1** to determine the amount of time that is required to deliver the specified volume per injection/drench site (see **Sections 6.1.3** or **7.2.3**).
- Step 4:** Determine how much solution to mix.
- Step 5:** Refer to **Table 8.2.2** to determine the amount of Searcher Insecticide that must be mixed in the desired volume of water based on the injection/drench volume identified above.

8.2.1 CALIBRATION CHART FOR SOIL APPLICATION (INJECTION/DRENCH)

Volume per Tree or Shrub	Flow Rate (Gallons per minute) and Time to Apply (Seconds)					
	0.5 gallon	0.75 gallon	1 gallon	1.5 gallons	2 gallons	3 gallons
1 pint	15.0 sec	10.0 sec	7.5 sec	5.0 sec	3.75 sec	2.5 sec
1 quart	30.0 sec	20.0 sec	15.0 sec	10.0 sec	7.5 sec	5.0 sec
2 quarts	1.0 min	40.0 sec	30.0 sec	20.0 sec	15.0 sec	10.0 sec
1 gallon	2.0 min	1 min 20 sec	1.0 min	40.0 sec	30.0 sec	20.0 sec

- To convert from fluid ounces to milliliters, multiply by 29.57.
- 1 fluid ounce = 29.57 ml = 2 tablespoons = 6 teaspoons
- Do not use household utensils to measure Searcher Insecticide.

8.2.2 MIXING CHART FOR SOIL APPLICATION (INJECTION/DRENCH)

Application Rate* (fl oz)	Volume per Tree or Shrub	fl oz Product per 100 Gallons	fl oz Product per 50 Gallons	fl oz Product per 25 Gallons	fl oz Product per 10 Gallons	fl oz Product per 1 Gallon
1 pint	0.0625	50	25	12.5	5	0.5
	0.25	200	100	50	20	2
1 quart	0.0625	25	12.5	6.25	2.5	0.25
	0.25	100	50	25	10	1
2 quarts	0.0625	12.5	6.25	3.125	1.25	0.125
	0.25	50	25	12.5	5	0.5
1 gallon	0.0625	6.25	3.125	1.56	0.625	0.0625
	0.25	25	12.5	6.25	2.5	0.25

- \*Amount of Searcher Insecticide per inch of diameter at breast height (DBH) for trees or per foot of height for shrubs
- To convert from fluid ounces to milliliters, multiply by 29.57.
  - 1 fluid ounce = 29.57 ml = 2 tablespoons = 6 teaspoons
  - Do not use household utensils to measure Searcher Insecticide.

## 9.0 STORAGE AND DISPOSAL

### STORAGE AND DISPOSAL

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

#### Pesticide Storage

Do not subject to temperatures below 32 degrees F. Store product in original container only in a location inaccessible to children and pets. Do not contaminate water, other pesticides, fertilizer, food or feed in storage. Not for use or storage in or around the home.

#### Pesticide Disposal

Do not contaminate water, food or feed by storage or disposal. Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

#### Container Handling (less than or equal to 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 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

#### Container Handling (greater than 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. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

#### Container Handling (greater than 5 gallons)

**Refillable container.** Refill this container with chlorantraniliprole only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the person refilling. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

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

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

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. 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 or other influencing factors in the use of the product, which are beyond the control of SYNGENTA CROP PROTECTION, LLC or Seller. To the extent permitted by applicable law, Buyer and User agree to hold SYNGENTA and Seller harmless for any claims relating to such factors.

SYNGENTA warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, when used in accordance with directions under normal use conditions. To the extent permitted by applicable law: (1) this warranty does not extend to the use of the product contrary to label instructions or under conditions not reasonably foreseeable to or beyond the control of Seller or SYNGENTA, and (2) Buyer and User assume the risk of any such use. TO THE EXTENT PERMITTED BY APPLICABLE LAW, SYNGENTA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS WARRANTED BY THIS LABEL.

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